Tampere University

FADIL JIHAD ABBAGIDI

Student Engagement in Public and Private Ethiopian Universities

Transforming Students' College Experiences
and Learning Outcomes

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ACADEMIC DISSERTATION
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Dedication

I dedicate this dissertation to my brothers and sisters, who have sacrificed their precious time, efforts, and lives in the struggle for freedom, justice, and equality.

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Fadil Jihad
Addis Ababa, 2022

ABSTRACT

Transforming students' academic, social, and work-related skills and competencies has taken center stage in Ethiopian higher education (HE) and quality assurance (QA) policy, research, and practice. Student engagement (SE) research has long underscored the importance of SE in promoting the quality of students' learning, educational experiences, and achievement of desired outcomes. Grounded in this notion, the present study explores SE in public and private Ethiopian universities. The role of existing HE and QA policies, structures, and processes in transforming students' classroom, on-campus, and off-campus educational experiences and learning outcomes was examined. Three fundamental research questions were posed. In order to find the best possible answers to those questions, a mixed exploratory sequential design was used, consisting of two-phase qualitative and quantitative data collection, analysis, and interpretation strategies. More specifically, methods and procedures from applied thematic analysis and survey research were used to collect, analyze, and interpret the qualitative and quantitative data.

Respondents were selected using purposive, stratified, and simple random sampling techniques. Using a purposive-theoretical sampling technique, study participants from the Ministry of Science and Higher Education, the Higher Education Strategic Center, and Higher Education Relevance and Quality Agency, along with transformation and QA offices and heads working at different levels in sampled universities, were selected to take part in the first, qualitative phase of the study. Similarly, simple random and stratified random sampling techniques were used to select sample universities, academic programs and disciplines taught, instructors, and students for both pilot testing and the second, quantitative phase of the research. Extensive reviews of the conceptual, theoretical, and empirical

foundations of SE were made to shed light on the relationships between SE and the quality of students' learning, overall HE experiences, and learning outcomes. In addition, the existing conceptions of SE, learning experiences, and achievement in Ethiopian HE and QA policies, strategies, regulatory frameworks, curriculum intentions, and teaching, learning, and assessment processes and procedures were synthesized.

The reviews guided the development, determination, selection, and validation of the data collection instruments that were used to gather both primary and secondary data during the first and second phases of the study. Document review checklists and semi-structured interview guides were devised to collect data for the qualitative phase. Similarly, relevant National Survey of Student Engagement and Faculty Survey of Student Engagement questionnaires and student achievement data in the form of cumulative grade point averages were used as data for the quantitative phase. In order to analyze the qualitative textual data obtained from interview transcriptions and document analysis, applied thematic analysis techniques were used. In addition, both descriptive and inferential analytical procedures were employed to analyze the quantitative data.

The results of the qualitative study enabled the generation of codes and themes that made up the SE concepts, dimensions, typologies, and theoretical assumptions that played a salient role in determining the SE variables, measures, and indicators in the context of Ethiopian higher education institutions (HEIs). Apart from this, the qualitative study enabled the identification of factors related to policy, strategy, curriculum, teaching, learning and assessment, students, and instructors that influenced SE and the development of students' academic, social, and work-related skills and competencies in Ethiopian HEIs. Meanwhile, in-depth discussions of SE themes, concepts, dimensions, typologies, and assumptions enabled the determination of an appropriate SE survey instrument to collect quantitative data from randomly selected sample instructors and students in selected private universities. The results from the second-phase, quantitative data analysis revealed

students' and instructors' perceptions of the rate of student participation in purposefully designed classroom, on-campus, and off-campus educational activities. The results also revealed the extent to which teaching, learning, and assessment processes and practices transformed SE and the quality of student learning and outcomes, indicating the existence of an association between SE and learning achievement. Finally, implications for policy, research, and practice are discussed, as are the limitations of the study.

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ABBREVIATIONS

AdU	Admas University
BA	Bachelor of Arts
BEd	Bachelor of Education
BSc	Bachelor of Science
CA	Continuous assessment
CBE	Community-based education
CBTP	Community-based training programs
CGPA	Cumulative grade point average
CQA	College quality assurance
ECTS	European Credit Transfer and Accumulation System
ESDP	Education Sector Development Program
ETP	Education and Training Policy
FSSE	Faculty Survey of Student Engagement
GER	Gross enrollment ratio
GTP	Growth and Transformation Plan
HE	Higher education
HEI	Higher education institution
HERQA	Higher Education Relevance and Quality Agency
HESC	Higher Education Strategic Center
ICT	Information and communication technologies
IQA	Institutional quality audit
JU	Jimma University
KSA	Knowledge, skills, and attitudes
MOE	Ministry of Education
MOSHE	Ministry of Science and Higher Education
MU	Mekelle University
NSSE	National Survey of Student Engagement
PCA	Principal component analysis
PGP	Post graduate program
PGDT	Post Graduate Diploma in Teaching
QA	Quality assurance
QE	Quality enhancement
SE	Student engagement
TQAD	Transformation and quality assurance office directors
TVET	Technical and vocational education and training

1 INTRODUCTION

1.1 Background of the study

The importance of higher education (HE) to the overall development and progress of a society has been widely discussed. For instance, the United Nations Education, Science and Culture Organization (UNESCO, 2017) describes HE as providing a nurturing condition for the initiation, development, and refinement of new ideas, innovations, and research outputs that configure key sectors' policies. In addition, it equips graduates with essential workplace competencies and instills dispositions that are crucial for creating a cohesive and fair society. The International Association of Universities (2017) went further in suggesting that the role HE plays in a society is boundless, as it helps set the tone for how the world can achieve not only the fourth, education-related UN Sustainable Development Goal but also all 17 goals on the 2030 global agenda. The emphasis placed on the provision, massification, and diversification of HE echoes the perceived importance of HE on global development policy and research agendas.

HE includes all post-secondary education provided by public and private universities, colleges, technical training institutes, and vocational schools. Reports from UNESCO (2017) and the World Bank (2017) show that the global demand for HE continues to grow, so HE is now confronted with an unprecedented growth in enrollments. Between 2000 and 2014, the number of students in universities more than doubled, rising from 100 million to 207 million. In the same period, the global university gross enrollment ratio (GER) increased from 19% to

34% (UNESCO, 2017, p. 1). Nevertheless, there are regional disparities, with the lowest growth being registered in Africa (Mohamedbhai, 2014). However, the recognition of the role HE plays in improving employment opportunities, job prospects, quality of life, and economic growth (The Africa-America Institute, 2015, p. 10) and improved access to primary and secondary education (Mohamedbhai, 2014) have contributed to increased interest in the massification of HE in Africa. As a result, tertiary enrollment has increased dramatically across many African countries (UNESCO, 2013). The evidence indicates that between 1970 and 2013, university enrollment in Africa increased from 400,000 to 7.2 million, with an average annual GER increase of 4.3%, well above the global average of 2.8% (Darvas et al., 2017, p. xiii; UNESCO, 2013).

In the same period, Ethiopia has also demonstrated a strong commitment to the expansion of higher education (Ministry of Education [MOE], 2003). The role of HE in transforming the social, political, and economic landscape of Ethiopia has been widely recognized in various policy, strategy, and program documents (e.g., Education Sector Development Programs [ESDPs, 1998–2025], Growth and Transformation Plans [GTPs, 2010–2020], and the Ethiopia Education and Training Roadmap [2018–2030]). These efforts required expanding and diversifying HE by increasing the budget allocated to the education sector, which is more than 5.7% of the country's GDP (MOE, 2015c) and enhancing the engagement of private sector providers. This contributed greatly to increased intake capacity and enrollment rates of students in HE. For instance, the GER has increased from less than 1% in the 1990s to 13.8% in 2020 (Ministry of Science and Higher Education [MOSHE], 2020). Of this, private higher education institutions (HEIs) accounted for more than 17% of undergraduate enrollment (MOE, 2016). Over the last two decades, undergraduate and postgraduate enrollments grew by 17% and 63%, respectively.

In spite of this dramatic expansion and massification of HE (understood below as education provided by both public and private universities in Ethiopia), later policy documents and research outputs illustrated that the rapid expansion of the education system has not been accompanied with adequate improvements in quality (MOE, 2005, 2010a, 2015a, 2018; MOSHE, 2020). The quality of institutions and their programs are increasingly being questioned. More than ever, stakeholders and the general public are complaining about the quality of graduates produced by public and private universities. Numerous studies have shown that graduates lack the competencies required to transform the social, political, and economic landscape of the country (e.g., Federal Democratic Republic of Ethiopia, 2003; MOE, 2015b; Kahsay, 2012; MOE, 2015a, 2015b, 2018, 2021; MOSHE, 2020). Pressure is mounting as employers, stakeholders, and the government all demand increased economic returns, educational accountability, and educational quality from universities (MOSHE, 2020). It is widely argued that Ethiopian universities are facing challenges to meet the needs of the growing number of students by providing quality education and training. Moreover, universities are falling short on enhancing and transforming the competencies, capabilities, and experiences essential for their graduates to succeed in the world of work (MOE, 2021; MOSHE, 2020). This trend has led to increased interest among policymakers and researchers in Ethiopia in examining the effectiveness, productivity, efficiency, and quality of the education provided in Ethiopian universities (e.g., Abebe, 2014; Geda, 2014; Kahsay, 2012; MOE, 2015b; Saketa, 2014; Weldemariam, 2008; Yirdaw, 2016). The present study aims to add to previous efforts to explore SE in public and private Ethiopian universities. A growing body of literature on SE in HE indicates that SE in purposefully designed on- and off-campus educational activities improves student achievement and the overall quality of education (e.g., Coates, 2005, Kuh, 2001; Pascarella & Trenzini, 1991; Trowler, 2010). In addition, SE has been found to provide invaluable data that HEIs can use to improve the

quality of students' post-secondary experience, learning outcomes, personal development, educational accountability, and responsiveness (Coates, 2009; Kuh, 2009; National Survey of Student Engagement [NSSE], 2002). In addition, in today's globalized and highly competitive world, understanding how students best learn and develop is essential to maintain and enhance the quality of universities (Hu et al., 2012). Accordingly, the present study explores the role of SE in transforming students' educational experiences and learning achievements, along with the quality of education provided in selected public and private Ethiopian universities. To achieve this aim, it investigates the role of existing HE and quality assurance (QA) policies, strategies, structures, processes, and practices in transforming students' college experience, learning gains, and outcomes.

1.2 Statement of the problem

It been over two decades since quality emerged as a concern in Ethiopian universities. However, the focus of this concern rested principally on examining the quality of the inputs provided. For example, older policy and strategic documents (MOE, 1998, 2005) stress the provision of qualified teachers, suitable teaching and learning facilities, and adequate financial resources. Later developments, however, have seen increased interest in improving the quality of processes. For instance, ESDP II (MOE, 2005), Higher Education Proclamations (Federal Democratic Republic of Ethiopia, 2003, 2009), and HERQA's (2007a) Quality's Institutional Audit Guidelines place more emphasis on improving the quality of processes such as educational leadership and management, monitoring and evaluating plans and performance, and student-centered teaching and learning processes. Improving the quality of students' university experience, learning achievements, and outcomes gained importance in ESDPs III and IV (MOE, 2010 a, 2015a), GTPs I and II (MOE, 2010b, 2015c), and the Ethiopia Education and

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Training Roadmap 2030 (MOE, 2021). However, translating these policy and strategic provisions into practice and ensuring the quality of education actually delivered in Ethiopian universities have remained challenging. More importantly, students' learning achievement and the development of their academic, social, and work-related competencies is very low compared to the minimum threshold (Kahsay, 2017; MOE, 2018; MOSHE, 2020).

A number of factors appear to have contributed to the deterioration of the quality of education in Ethiopian universities. The policymaking environment and research undertakings emphasize the input and process aspects of HE quality. For instance, older HE policy and strategic priorities (e.g., the Education and Training Policy [MOE, 1994]; MOE, 2010a, 2015a; MOE, 2010b) give prominence to these factors. Similarly, previous research outputs on HE QA systems and practices in Ethiopia have tended to emphasize the assessment of national and institutional QA policies and practices (e.g., Geda, 2014), various aspect of QA systems and practices (e.g., Abebe, 2014, 2015; Kahsay, 2012; Saketa, 2014; Weldemariam, 2008), the evaluation of teaching process parameters (e.g., Kahsay, 2017; Zerihun et al. 2012), and the role of leadership and governance in QA (Yirdaw, 2016). Thus, transforming students' educational experiences and learning outcomes is less emphasized in existing HE and QA policy and strategic priorities. In addition, existing research has not sufficiently investigated the impact of the existing QA systems, structures, processes, and practices on transforming students' educational experience, learning achievement, and development of competencies. Geda (2014), for example, notes that little is known about whether national and institutional QA system actually improved teaching and learning processes or transformed the student learning experience (p. iv). Furthermore, the National Higher Education Policy and Strategy (MOSHE, 2020) states that poor-quality QA systems in public

and private universities contributed to the failure of graduates to attain work-related competencies (MOSHE, 2020)

From the perspective of the present study, efforts to assess the quality of HEIs have neglected valuable measures of SE data. There is strong empirical evidence that effective SE improves students learning and achievement (Coates, 2009; Kahsay, 2017; Kuh, 2001; Trowler, 2010; Trowler & Trowler, 2010; Zyngier, 2008), and SE can be used as a proxy to assess the quality of education in HEIs (Coates, 2005; Coates & Mehat, 2013; Kahu, 2013; Kuh, 2009). SE in purposefully designed educational activities improves the quality of students' college experience, thereby facilitating the acquisition and development of competencies related to courses, programs, and employment.

Though there is no single definition of SE, the US NSSE describes it as "the amount of time and quality of efforts that students invest in their studies and how the courses and institutions encourage them to engage in purposefully designed educational activities" (Buckley, 2015, p. 5). Similarly, the analogous Australian survey framework describes SE as the extent to which "students are involved in a range of purposefully designed educational activities that are likely to lead to quality learning" (Coates, 2005, p. 27) and to the policies and practices that institutions use to induce students to take part in such activities (Coates, 2009, p. 3). Engaged students are regarded as active, critical, and passionate about their studies and make efforts to gain from all aspects of university life (Green, 2018). Thus, SE involves the mental, psychomotor, and socio-emotional investment students make in their studies and the structural, curricular, teaching, and learning arrangements institutions create to promote engagement among students. For SE to achieve its purpose, HE and QA policies, strategies, structures, and processes need to emphasize the design and implementation of favorable conditions for students to engage fully in their academic and non-academic experiences.

SE is regarded as playing an essential role in improving the quality of student outcomes, as measured by learning achievement and the development of academic, social, and work-related competencies. In most instances, however, the level of SE in teaching and learning processes, assessment protocols, and the provision of feedback is not enough to assess the quality of colleges and universities (Campbell, 2015). It is imperative to note that what students do inside and outside the classroom and the level of their engagement in teaching and learning processes is essential to improving their learning, college outcomes, and productivity (Coates, 2005, Kahu, 2013; Kuh, 1994; Trowler, 2010; Zyngier, 2008). Hence, measures of SE can serve as a major data source to assess the quality of education provided by HEIs (Coates, 2009; Kuh, 2009).

This research investigates the state of educational quality in public and private Ethiopian universities by exploring the role of existing HE and QA policies, structures, and processes in transforming students' on- and off-campus educational experiences, learning outcomes, and social and work-related competencies. In addition, the study explores whether the themes generated from the analysis and synthesis of the first-phase qualitative data help understand the what, why, and how of SE from an Ethiopian HE perspective. Moreover, the study examines whether SE predicts student achievement. To this end, it poses three overarching research questions.

1. To what extent do existing HE and QA policies, structures, and processes emphasize the development of students' college experience and student outcomes?

Knowing what students learn and can do has become a central concern of universities, parents, and stakeholders. Carmichael et al. (2001) argue that student learning needs to be placed at the center of HE quality discussions. Therefore, in addition to stressing the assessment of the quality of input and process factors,

efforts to maintain and enhance educational quality in universities need to pay due attention to the improvement of students' college experiences and outcomes; that is, their learning achievements and a set of academic, social, and work-related outcomes. It has been reported that the quality of student learning and achievement is associated with the level of SE in classroom, on-campus. and off-campus educational experiences (Coates, 2005, 2009; Trowler, 2010). It has also been argued that knowing the amount of time spent and efforts exerted by students in educationally purposeful activities enables an understanding of the association between educational processes, activities, and tasks and actual student learning and achievement and the overall quality of the college experience (Kuh, 2001, p. 15).

Finding reasonable answers to this research question was pivotal for two reasons. First, one of the central mandates of Ethiopian HEIs is promoting students' learning achievement and their development of the competencies essential to succeed in the world of work and society (e.g., MOE, 1994; MOE, 2015a; MOE, 2015b, 2018). However, QA and QE practices in both public and private universities appear to rely more on the assessment of educational inputs and teaching process parameters than on assessing how QA systems, processes, and practices are transforming students' actual learning and what they are achieving (MOE, 2018; MOE, 2021; MOSHE, 2020). An investigation into the role of how HE and QA policies, structures, and processes are promoting SE and the development of desired outcomes can provide a comprehensive understanding of the nature and types of classroom, on-campus, and off-campus educational experiences that play a salient role in enhancing the quality of students' learning and achievement. Second, addressing this research question can reveal process- and outcome-oriented measures that are instrumental in filling the gaps observed in conventional QA practices. From the perspective of the present study, any

endeavor that seeks to explore the quality of an institution, program curriculum, teaching and learning process, or student learning and achievement needs to consider information about the role of QA systems, processes, and practices in transforming SE into concrete learning outcomes (Coates, 2005; Kahu, 2013; Kuh, 2009). Without such data, discussions about the quality of education are inherently incomplete, as SE data have become more influential in measuring the quality of university education and in promoting evidence-based quality management practices (Coates, 2009; Quaye & Harper, 2014).

2. In what ways do the themes generated in the qualitative phase of the study contribute to a comprehensive understanding of SE concepts, dimensions, typologies, and theories from an Ethiopian HE perspective?

Our understanding of SE concepts, dimensions, typologies, and theoretical frameworks is based on the long history of SE literature in the West (e.g., Astin, 1984; Coates, 2005; Kuh et al., 1991; NSSE, 2000; Pascarella & Terenzini, 1991; Trowler & Trowler, 2010). Though African perspectives on SE research have begun to appear in the last decade (e.g., Pather et al., 2017; Wawrzynski et al., 2012), SE remains a comparatively underdeveloped research area in Ethiopian HEIs. This has limited our understanding of SE concepts, dimensions, and typologies in an HE context that is distinctly different from HEIs in the West. Apart from this, little is known about the relative stability of measures of validity and reliability when the influential NSSE survey is administered in an underdeveloped HE context. Thus, the themes generated from the extensive analysis and synthesis of the qualitative data were used as a framework to explore SE concepts, dimensions, typologies, and theoretical lenses in the Ethiopian HEI context. Those aspects were compared with the dominant SE conceptions, dimensions, typologies, and theoretical lenses discussed in mainstream HE

literature (e.g., Coates, 2009; NSSE, 2013). Addressing this research question played a salient role in locating, modifying, and testing measures relevant to examining SE in the context of public and private Ethiopian universities.

3. How does SE influence student achievement and outcomes?

One of the core tasks of universities is fostering students learning and achievement. Though the relationship between SE and academic achievement is not straightforward (Lee, 2014) and remains unclear (Axelson & Flick, 2011), a number of studies have indicated that engaged students are more likely to persist, achieve success, and attain qualifications (Axelson & Flick, 2011; Hu & McCormick, 2012; Leach & Zepke, 2011; Ohamobi & Ezeaku, 2016). In addition, SE has been found to be positively related with HE outcomes like higher grades, college persistence, and graduation rates (Axelson & Flick, 2011; Hu & McCormick, 2012). The available research output (Coates, 2005, 2009; Kahu, 2013; Kuh, 2009; Zyngier, 2008) indicates that being engaged in purposefully designed educational activities contributes to improved student outcomes (Trowler & Trowler, 2010; Zyngier, 2008). Finding reasonable answers to this research question facilitated the acquisition of empirical evidence that either corroborated or refuted claims that engaged students achieve more and succeed in Ethiopian public and private universities. It also helped provide pertinent process and outcome data that institutions can use to engage in evidence-based QA and management systems, processes, and practices.

1.3 General purpose of the study

The main purpose of this study is to explore the role of HE and QA policies, structures, and processes in transforming students' college experience, learning

outcomes, and educational quality at selected public and private universities in Ethiopia. In addition, the study seeks to identify relevant survey instruments to test the SE concepts, dimensions, typologies, and theories that emerged from the qualitative phase of the study. Finally, this study examines the relationships between SE and student achievement.

1.4 Significance of the study

The significance of the present study lies in its three key contributions: the first is to national and institutional QA policymaking, strategy formulation, and guideline development, the second is to the development of SE measures relevant to Ethiopian HEIs, and the third is to SE and QA research.

Though Ethiopia has made significant improvements in access to HE, has come a long way in improving equity in HE, and has shown good progress in ensuring the relevance of HE over the last decade, recent policy and strategic documents (e.g., MOE, 2015a, 2021; MOSHE, 2020) reiterate that HE quality and student outcomes have worsened in recent years. It is argued—despite the reform initiatives that were implemented—that policies, strategies, and guidelines have failed to transform and improve students' college experience, learning gains, and outcomes. QA policies and strategic priorities emphasize the input-process aspect of quality. For instance, previous HE and QA policies and strategies gave prominence to the expansion of HE, the provision of educational inputs, and the evaluation of teaching and learning processes. Improving students' college experiences and outcomes depends heavily on the design and implementation of national and institutional policies, strategies, structures, and processes that can transform students' educational experiences and learning outcomes. This suggests that the policymaking environment needs to shift its focus from the input-processes model to the output and outcome aspects of HE quality. The empirical

evidence obtained from the in-depth analysis and synthesis of the qualitative and quantitative phases of the study shows that current QA policies, systems, structures, and processes are seeking to transform the quality of students' university experiences and learning achievement. Using these findings, the study challenges the national and institutional policymaking environment and argues for the need to redirect efforts to ensure that quality in HE actually enhances students' college experiences and outcomes.

Similarly, existing HE and QA research has largely studied policies, systems, inputs, and process-related factors affecting QA in Ethiopian universities. In these studies, little attention has been paid to investigating the role of QA systems, processes, and practices in improving students' educational experiences and the achievement of benchmark learning outcomes. This limitation contributes to the observed lack of measures of educational quality from the perspectives of student experience or student outcomes. This gap has hindered our understanding of the association between QA practices, students' college experiences, and the achievement of learning outcomes. In addition to investigating the policy, system, input, and process dimensions of QA, research into QA needs to place students' educational experiences and learning gains at the center of the discussion. This central premise of this dissertation is the development and use of SE and students' outcome measures to assess the quality of Ethiopian HEIs. Accordingly, the present study examines the association between SE in on- and off-campus educational experiences and students' academic, social, and work-related outcomes. The results are crucial to judging the success of public and private universities in Ethiopia at fulfilling their core mission of producing graduates with the knowledge, skills, and attitudes (KSAs) needed for success in the world of work and in society. The study provides empirical evidence that supports or refutes the argument that SE plays a salient role in transforming students' college experiences and

achievement of benchmark learning outcomes. It also provides baseline SE data that future researchers can use to examine the relationship between QA practices, students' college experiences, and student outcomes.

National and institutional reports (HERQA's institutional quality audit [IQA] reports, self-evaluation documents, etc.) show that QA practices in Ethiopian universities are heavily laden with routine tasks that are administrative in nature and may or may not be related to universities' core mission and goals. In particular, the QA strategies, guidelines, benchmarks, and indicators devised to measure and evaluate the quality of universities are only weakly linked with what students are actually learning and achieving. Often, information sought from colleges and departments is associated with teaching loads, class audits, the number and type of continuous assessments (CAs) implemented, staff-student ratios, availability of teaching and learning networks, teaching resources, teaching evaluations, and students' passing and graduation rates. Though seeking such input and process-related information is crucial, it does not inform outcome measures as gauged by the level of SE in academic and non-academic matters and achievement of course, program, and graduation learning outcomes. The present study places a greater emphasis on SE and its role in transforming students' college experiences and learning outcomes. It approaches quality from the student perspective and stresses the collection and analysis of context-dependent data that are used to explore and test SE concepts, dimensions, and theories in the context of Ethiopian HE. The results of this study can thus play a crucial role in providing macro- and micro-level variables that significantly shape and influence SE, learning achievements, and students' development of academic, social and, work-related competencies. This level of analysis assists efforts to implement comprehensive quality management procedures and processes in Ethiopian public and private HEIs.

1.5 Research scope

Ethiopia's 2019 Higher Education Proclamation defines HE as "education provided in the arts, sciences, social sciences and technology programs offered to undergraduates and graduate degree students" (Federal Democratic Republic of Ethiopia, 2019, p. 11447). Similarly, the 2020 Higher Education Policy and Strategy defines HE as "a tertiary educational level that is provided to students in undergraduate and graduate programs that enable learners to acquire advanced academic and professional knowledge, skills, values, ethics, and competencies" (MOSHE, 2020, p. 13). There are 52 public and four private universities that offer undergraduate and postgraduate degrees (MOE, 2021). However, this study focuses only on two purposefully selected, one public (Jimma University [JU]) and one private (Admas University [AdU]), and one randomly selected university. In addition, the study was limited to undergraduate degree programs. For the qualitative phase of the study, universities with substantial teaching, research, and community service experiences, diverse academic programs, qualified and experienced lecturers and professors, organized student support and information and communication technology (ICT) infrastructures, and a relatively well-developed QA and QE system were selected. Empirical evidence suggests that the history, tradition, and research performance of universities has an indirect relationship with student learning (Coates, 2005, p. 28). Therefore, the reservoir of experience in teaching, research, and community service made the selected universities appropriate for a study designed to assess the role of SE in fostering students' college experiences and learning outcomes.

The quantitative phase of the study was limited to graduating class students enrolled in certain disciplines and the instructors assigned to teach those students. The research tradition on SE emphasizes first-year and graduating-class students

and instructors in surveys (e.g., FSSE, 2019; NSSE, 2019). However, the present study focused only on graduating class undergraduates. For the aims of this study, graduating class students have more university experience than first-year students and are better acquainted with institutional policies, structures, and processes. Moreover, they are in a better position to evaluate the role played by their university in transforming their on- and off-campus educational experiences, learning achievements, and their development of academic, social, and work-related competencies.

1.7 Operational definition of terms

The following terms appear frequently in this dissertation, so operational definitions are provided to facilitate clarity and harmonize understanding.

1. **Quality as transformation** implies transforming students' learning and experiences in universities to promote improved college outcomes and the quality of education (Harvey & Green, 2010).

2. **Student engagement** refers to the extent to which students are involved in a range of purposefully designed educational activities that are likely to lead to quality learning (Coates, 2005, p. 27) and to the policies and practices that institutions deploy to induce students to engage in such activities (Coates, 2009, p. 3).

3. **Student achievement** is the competence of a student in relation to subject-specific domain of KSAs (Algarabel & Dasi, 2001).

4. **Student outcomes** are the intended, direct, short- and long-term consequences believed to be attributable to the university experience rather than to normal maturation, societal changes, or other influences or forces beyond a university education's sphere of influence (National Postsecondary Education Cooperative, 1997).

1.8 Organization of the study

This dissertation is comprised of eight chapters. This first chapter provides background information on the development of and trends in HE at a global level, in Africa, and in Ethiopia. It also highlights existing QA policies, research, and practices in Ethiopian HE and the limitations observed in transforming students' college experiences and learning outcomes. It introduces the concept of SE and its role in improving the quality of students' learning, educational experiences, and achievement of desired outcomes. Finally, it provides the rationale for investigating SE in public and private Ethiopian universities.

The second chapter focuses on the theoretical and conceptual framework of SE. It covers the historical development, definitions, conceptual organizers, dimensions, and typologies of SE. In addition, the major behavioral, constructivist, psychological, socio-ecological, and other theories that laid the foundation for the development of the SE concept in HE is discussed. The chapter concludes by detailing previous research on SE and its role in promoting student achievement and the quality of HE.

The third chapter focuses on SE in Ethiopian HE and QA policy, strategy, and regulatory frameworks. The existing conceptions, assumptions, and provisions with regard to the role of students in Ethiopian HEIs are discussed. In addition, using Mekelle University (MU) as a case study, the chapter depicts the extent to which SE is emphasized in national and institutional HE and QA policy, strategy, and regulatory frameworks.

The fourth chapter presents the research approach, design, and methods employed to address the three overarching research questions. In doing so, the chapter discusses the philosophical worldviews that guide the overall research. In addition, the specific research approaches, designs, methods, and procedures used

to select samples and to collect, analyze, and interpret data are presented in detail. The procedures followed to ensure the reliability and validity of the data collection instruments are presented. Finally, the chapter reviews the ethical considerations relevant to protecting the anonymity of the respondents and institutions involved in the study.

The fifth chapter presents the results of the first-phase, qualitative data analysis. Exploratory and thematic analysis of the transcribed interview and documentary data is employed, with the chapter detailing the results of word count and word cloud analysis, code co-occurrence frequencies, and code–document relationships. The major themes, codes, and variables generated from the initial exploratory analysis are enumerated. The chapter concludes by discussing the conceptions and perceptions of SE and the development of educational experiences and outcomes based on the synthesis of respondents' reflections and document analysis.

Chapter six interprets the result of the first-phase qualitative interview and document analysis and addresses the major themes, concepts, dimensions, and theoretical underpinnings generated by that in-depth analysis. Guided by the three overarching research questions and supported by relevant literature, the discussion focuses on how those data helped determine an appropriate survey instrument that was used to test the themes, concepts, dimensions, and assumptions of SE through the collection of quantitative data.

The seventh chapter presents the results of the second-phase quantitative data analysis. Using both descriptive and inferential statistics, the chapter provides students participation rates using various SE and HIP indicators. Students' overall satisfaction regarding their educational experiences and perceived institutional contributions are also discussed. The chapter then presents the observed relationships between SE, on- and off-campus educational experiences, and learning achievement. Finally, the psychometric properties of the adapted NSSE

and FSSE surveys are addressed, as is their relevance to testing the qualitative themes, concepts, dimensions, and assumptions of SE from Ethiopian HE perspectives.

The eighth and final chapter presents the overall conclusions and implications of the study, detailing its importance and acknowledging certain limitations.

2 SE IN ETHIOPIAN HE AND QA POLICIES, STRATEGIES, AND PRACTICES

2.1 The definition and mandate of HE

The 2019 Higher Education Proclamation defines HE as "education provided in the arts, sciences, social sciences and technology programs offered to undergraduates and graduate degree students" (Federal Democratic Republic of Ethiopia, 2019, p. 11447). Similarly, the 2020 Higher Education Policy and Strategy defines HE as "a tertiary educational level that is provided to students in undergraduate and graduate programs that enable learners to acquire advanced academic and professional knowledge, skills, values, ethics, and competencies" (MOSHE, 2020, p. 13). Similarly, a university is defined as a tertiary educational institution that carries out research and scientific investigations, provides community services, and awards certificates of training or academic degrees in various disciplines at both the undergraduate and graduate levels (MOSHE, 2020, p. 14). The modality of undergraduate and postgraduate degree programs' delivery in Ethiopian HEIs encompasses regular, continuing, and distance or virtual education (Federal Democratic Republic of Ethiopia, 2009, No. 64, Article 2:8 p. 4975).

HEIs are mandated to use the creation and transfer of knowledge and technology to develop competent citizens who contribute to the social, economic, political, and cultural development of Ethiopia (MOE, 2015b, p. 32). With this mandate, the purpose of HE in Ethiopia is to enable social transformation, a purpose that is deeply rooted in the educational philosophies of progressivism and

existentialism (MOSHE, 2020). The shift from the educational philosophies of essentialism and perennialism to progressivism and existentialism can be attributed to the limited role that HEIs had played in transforming the nation's social, economic, political, and technological capital by transforming student outcomes and the quality of education.

2.2 SE in major HE policy and strategic provisions

The topics below are organized to shed light on the extent of the development of on- and off-campus educational experiences and how students' achievement of academic, social, and work-related competencies have been emphasized in Ethiopian HE policy and strategic documents. The presentation is made chronologically to highlight the emphases placed and progress made since the introduction of HE in Ethiopia.

2.2.1 Earlier HE policies and strategies

Prior to 1994, there was no HE policy that explicitly guided the provision of HE in Ethiopia. Nevertheless, there were two notable HE proclamations: the 1961 Charter for the Haile Selassie I University and the 1977 Higher Education Institutions Administration Proclamation. The proclamations emphasized setting up power structures, governance, mandates, and responsibilities. In addition, the country's first education sector review was conducted in 1971. The sector review was targeted at expanding universal primary education and addressing the acute unemployment among secondary school graduates in the country. To deal with this concern, the government passed a resolution to expand TVET to meet the country's employment demands. Soon after the resolution was promulgated, the

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MOE initiated The Evaluation Research on the General Education System of Ethiopia. This evaluative study focused on curriculum development and teaching, learning process, educational administration, structure and planning, educational logistics, support services, training, and educational evaluation and research.

2.2.2 The 1994 Ethiopian ETP

Ethiopia's first education policy-enacting effort was undertaken in 1994. Since then, that ETP has been instrumental in guiding and directing the provision, management, and governance of primary, secondary, TVET, and HE institutions around the country. Based on this policy framework, a number of education-sector development strategies, programs, and proclamations have been introduced and implemented.

The 1994 Ethiopian ETP emphasized the development of students' problem-solving capacity and culture in the content of education, curriculum structure, and delivery approach. It explicitly states the importance of developing the scientific competencies and practicum (ETP, 1994, p. 4). In addition, it cites the development of the productive, cognitive, creative, and appreciative capacities of students as vehicles for their fruitful participation in the development and use of resources and the environment at large (p. 6). Improving the quality of education throughout the system was one pillar of the policy statement. The policy acknowledged that the development of these fundamental competencies rests on ensuring educational access, equity, quality, and relevance at all levels. In addition, the implementation of decentralized educational management and governance structures that go all the way to the classroom and student level was considered essential for improving educational effectiveness and efficiency.

Though SE is not explicitly mentioned in the 1994 policy, the notion of SE is implicitly reflected in its general and specific objectives, curriculum intentions, and

the teaching, learning, and assessment processes stipulated in the policy. For instance, the policy emphasized the development of students' intellectual, problem-solving, creative, and appreciative skills, their scientific and technological competence, their intercultural skills, and their ability to participate fruitfully in the development and use of resources. The effective realization of these policy intentions relies on the active involvement (the meaning of which overlaps with engagement) of students in classroom, on-campus, and off-campus educational experiences. Recently, however, the long-serving 1994 policy was revised to accommodate current trends and developments in the country.

2.2.3   ESDPs I–VI, 1997–2025

In order to translate the 1994 policy intentions into practice, Ethiopia undertook a second education sector review, which led to the development of the ESDP in 1997. Since then, six ESDPs have been devised to address access, equity, relevance, quality, efficiency, and effectiveness in the education system.

It is worth noting that all the ESDPs cite poor educational quality and poor student outcomes as major challenges facing the Ethiopian education system. However, the main reasons cited for the observed problems vary over time. For instance, in ESDP I, poor curricula, which tended to be too theoretical and too remote from students' real lives, were cited as a principal reason for the poor quality of education at all levels (MOE, 1997, p. 3). In ESDP III, a lack of essential educational inputs (human, material, and facility) for undergraduate and postgraduate studies and a lack of student-centered service delivery, management, and evaluation processes were considered the major problems contributing to poor educational quality (MOE, 2005, pp. 17–18). In ESDP V, the implementation of poor-quality instructional process and a lack of relevance in HE courses was found

to be the central contributor to poor educational quality and deteriorating student outcomes (MOE, 2015a, p. 22). Though ESDP VI (2021–2025) is entirely devoted to general (pre-primary, primary, and secondary) education, the issues of access, equity, quality, and system inefficiency are discussed as challenges that must be addressed during the implementation period.

In order to address the identified problems, strategies are proposed in all ESDP documents. For instance, in ESDP III, making the curriculum relevant by connecting it to the learner's experience and environment was suggested (MOE, 2005, p. 35). In ESDP IV, improving the teaching–learning process, increasing interpersonal growth, and improving graduate employability through the delivery of high-quality education is advocated (MOE, 2010a, p. 64). The proposed strategies in ESDP V emphasize enhancing the relevance and quality of the development, delivery, and assessment of academic programs. It was hoped that this strategy could enhance students' active learning and involvement in the decision-making and governance structures of the education system. In addition, equipping graduates with relevant industry knowledge and up-to-date specialized skills, competencies, and work-ready attitudes that enable them to succeed in the world of work, industry, and research is emphasized. Finally, establishing closer links with industries and other social sectors to boost cooperation, collaboration, partnership, and exchange was suggested (MOE, 2015a, pp. 108–122)

The strategic choices signal the role that program curricula, institutional structure and governance, cooperation and partnership with stakeholders, and the teaching and learning environment play in improving students' learning experiences, learning outcomes, employability skills, and interpersonal growth. The fulfillment of these strategic choices requires the active involvement of students in demanding academic tasks (KSAs), management (curricular and decision-making processes), and the community (off-campus community-based education [CBE],

internships, and placements). These concepts are well within the SE dimensions and typologies discussed in the wider literature.

2.2.4   HE GTPs (2010–2020)

In order to transform the HE system and support the implementation of ESDP IV, HESC developed GTP I (2010–2015) in 2010. Following the successful implementation of GTP I, a second GTP covering 2015 to 2020 was launched in 2015 to support the implementation of ESDP V. In both plans, the issues of HE access, relevance, and quality are raised as the major issues facing the HE system (MOE, 2015b, p. 35). In addition, various problems that contribute to the poor quality of educational inputs, processes, and outputs are discussed in detail (MOE, 2015b, p. 28). Most importantly, these plans advocate the implementation of student-centered teaching and learning by introducing competency-based education.

In order to transform the HE system, the plans required HEIs to go through curriculum reforms (e.g., introducing modular curricula, the implementation of a harmonized undergraduate curriculum, internationalization, CA, collaborative learning, and diverse student support systems). In addition, the plans called for the institutionalization and operationalization of team work and peer learning in HEIs (MOE, 2015b, p. 25). The emphasis placed on promoting learning beyond the classrooms—from peers, workplace placements, and projects—indicates the importance attached to collaborative and practice-oriented teaching and learning processes. These strategic priorities show the value assigned to the engagement of students in enriching educational experiences. In addition, the emphasis paid to the design and implementation of competency-based education entailed transforming students' educational experiences and achievement of learning outcomes.

2.2.5 Ethiopia Education Development Roadmap 2030

Recent trends in the Ethiopian education policy and strategic framework are related to linking the mission and goals of HE with the UN's global Sustainable Developmental Goals. This effort led to the development of the Ethiopia Education Development Roadmap 2030 (2018). The rationale for this document emanated lies in the fact that Ethiopia's education system still faced problems of quality, efficiency, curricular relevance and rigor, lack of program diversification, weak university–industry linkages, a lack of essential facilities, and a lack of accountability (MOE, 2018, pp. 38–41). With such problems, it is argued, meeting the Sustainable Developmental Goals relevant to the educational sector will be a serious challenge for the country. Of particular interest, this policy document argues that the activities carried out to enhance and assure quality had little positive impact on the quality of HEIs' core processes; that is, teaching and learning (MOE, 2018, p. 52). Though many contributing factors were cited, the failure to properly implement student-centered teaching and learning processes, a lack of practice-oriented teaching, and the failure to develop the life skills and entrepreneurial capabilities of students all played major roles (MOE, 2018, p. 52).

Though the state of SE in HEIs was not reported due to a lack of empirical evidence, SE in secondary schools as gauged by students' motivation to learn, interest in academic activities, reading, and attendance was observed to be very low. Teachers, supervisors, and stakeholders reported that students' lack of commitment, enthusiasm, and interest in attending classes, bringing textbooks, and completing homework contributed to lower levels of SE in secondary schools (MOE, 2018, p. 27). The document indicates that students' lack of interest in—let alone passion for—improving their knowledge and skills can be explained by the failure of the educational system to motivate students (MOE, 2018, p. 27).

To address these gaps, the roadmap recommends that university graduates be equipped with balanced cognitive and non-cognitive skills, higher-order thinking abilities such as critical, creative, and problem-solving thinking skills, and a high degree of computer literacy (MOE, 2018, p. 53). To achieve these aims, engaging students in academic and co-curricular activities is given due attention. In addition, promoting student learning beyond the classroom (from peers and in workplaces) through placements and projects are emphasized (MOE, 2018, p. 53). The successful realization of the Ethiopia Education Development Roadmap 2030's policy priorities requires the active engagement of students in classroom, on-campus, and off-campus educational experiences and the development and implementation of supportive institutional structures, processes, and infrastructures.

2.2.6 HE policy and strategy

Following the recommendations of the Ethiopia Education Development Roadmap 2030, a separate HE policy and strategy was formulated (MOSHE, 2020). That document addresses a number of problems facing the Ethiopian HE system. Poor quality, deteriorating student achievement and graduate outcomes, suboptimal governance and leadership, limited teacher competence, a lack of institutional autonomy, and the mismatch between the labor market demands of the national economy and what graduates can offer are among the issues discussed in the policy and strategy that are relevant for this study (MOSHE, 2020, pp. 9–11).

To address these challenges, the policy and strategic framework prioritized a system overhaul by re-energizing the HE system and delivering high-quality and relevant HE content without undermining the issues of equity and inclusion. To this end, a number of key changes were planned. One vital intervention area is

related to revamping the curricular, pedagogical, assessment, and student support systems. In addition, making HE flexible by allowing learners to take courses of their choice that are relevant to improving their competencies and quenching their thirst for knowledge was proposed (MOSHE, 2020, pp. 11–12). Moreover, to enhance students' experiences, learning achievement, and outcomes, the design of extra- and co-curricular activities was proposed to engage learners in various physical, social, psychological, vocational, technological, economic, and intellectual aspects of personal development. Overall, improving students' educational experience and learning outcomes was considered essential to enhancing the quality and relevance of HE.

2.3 SE in HE regulatory and QA frameworks

SE in HEIs' regulatory frameworks was assessed by examining national proclamations and university-level legislative provisions. In addition, QA policies, strategies, and tools were examined to explore SE conceptions and practices. While analyzing these documents, due attention was paid to the conceptual denominators of SE: student experience, student participation and involvement in governance and decision-making process, student-centered teaching and learning approaches, on- and off-campus learning experiences, and participation in CBE. These conceptual denominators were carefully adapted from the broader SE literature.

2.3.1 SE in HE proclamations

Since the introduction of HE in Ethiopia, five proclamations have been promulgated to regulate the operation of HEIs. They are discussed below.

I) The 1961 Charter for the Haile Selassie I University

The 1961 Charter focuses on spelling out the powers and duties of different offices and departments in that (former) university. In this charter, discussions of the objectives of HE, the nature of teaching and learning, the role of students, and QA issues are not discussed at all (Imperial Government of Ethiopia, 1961). At that time, education in general and HE in particular was strictly for the elite. To address this, the first education sector review in 1971 was intended to expand universal primary education and to resolve the acute problem of unemployment among secondary school graduates (Negash, 2006).

II) The 1977 HE Institutions Administration Proclamation

Following the downfall of the imperial regime in 1974, the 1977 Higher Education Institutions Administration Proclamation was propagated. It mandated HEIs to educate professionals capable of laying the foundation for and developing Ethiopia's science and technology capability and prepared to serve the broad mass of people (Provisional Military Government, 1977, No. 109, Article 3:1–6, p. 125). The objectives of HE were to teach, expound and publicize socialism, and formulate methods to carry out these functions. However, the proclamation did not discuss the nature of teaching and learning, students' roles, or the strategies HEIs were to use to promote better student outcomes.

III) The 2003 HE Proclamation

After the removal of the Derg regime in 1994, a third proclamation appeared nearly a decade later, in 2003. This proclamation states that HE and any training offered at any institution should focus on the development of the student experience and student participation, should be practice-oriented, should take the country's objective situation into consideration, should encourage independent

thinking, should reflect modern views, and should focus on problem solving (Federal Democratic Republic of Ethiopia, 2003, No. 72, Article 13, pp. 2238). SE is about enhancing students' experience by creating a nurturing and enabling environment. The provision of this proclamation provides an enforcing condition for institutions to create such nurturing and enabling arrangements and infrastructures.

IV)   The 2009 Higher Education Proclamation

The fourth proclamation, which was promulgated in 2009, is a comprehensive document that details all aspects of HE systems. This proclamation clearly stipulates that curriculum design and delivery and the assessment of learning outcomes in any institution should aim at enabling the learner to acquire pertinent scientific knowledge, independent thinking skills, communication skills and, professional values that together prepare him or her to become a competent professional (Federal Democratic Republic of Ethiopia, 2009, No. 64, Article 21:1, p. 4988).

It also stipulates that the teaching and learning processes in every institution should—whatever the delivery methods employed—be interactively student-centered and promote active learning. The teaching and learning conditions in every institution should, as far as practicable, create enabling in-class and on-campus environments and an encouraging atmosphere for students to learn (Federal Democratic Republic of Ethiopia, 2009, No. 64, Article 41:1–4, p. 5006). Moreover, the designing of courses and their delivery are to be carried out to reflect the knowledge and skills students already have and cultivate constructive professional values. Students are to be assessed properly and fairly on the basis of their learning experiences, and the marking system should reflect the competencies

achieved by students (Federal Democratic Republic of Ethiopia, 2009, No. 64, Article 41:1–4, p. 5006).

Compared to its predecessors, this proclamation is much more thorough and detailed in discussing the central role that HEIs are intended to play in terms of the student experience and facilitating learning. From a legal point of view, SE as gauged by students' active participation in decision-making, teaching, and learning processes and curricular design, development, implementation, and evaluation processes is given due consideration in recently promulgated proclamations.

V)   The 2019 Higher Education Proclamation

The 2019 proclamation carried over most of the provisions of the 2009 version, but it goes further in expanding students' roles and rights at HEIs. The proclamation stipulates that HEI students have the right to enjoy the freedom to learn with appropriate opportunities and conditions in the classroom, on campus, and in the larger community (Federal Democratic Republic of Ethiopia, 2019, No. 1152, 12th, Article 38, p. 11474). Accordingly, HEIs are mandated to enhance the quality of student learning and outcomes by establishing the necessary support infrastructures.

2.3.2   SE in HE legislation and academic policies

To assess the extent to which SE and the development of students' on- and off-campus educational experiences and learning outcomes were emphasized in HE legislation, two acts were reviewed: the Nationally Harmonized Academic Policy of Ethiopian Public HEIs (MOE, 2021) and the MU Senate Legislation (MU, 2017). These frameworks were chosen for reasons of convenience. Above all, access to the relevant documents was relatively easy for the researcher, who is an MU

employee. The use of the harmonized policy helped gain insights into priorities, regulations, and provisions.

I)   Harmonized Academic Policy of Public Ethiopian HEIs

The 2020 harmonized academic policy focuses largely on laying out the policies, rules, and regulations that HEIs can use to direct their human resources, program development, teaching, learning, and assessment activities. In this regulatory document, a modular curriculum design is stipulated. Accordingly, courses organized under the general module category are expected to enable students to acquire the communication and analytical skills necessary to enhance their capacities to benefit from specialized training. Courses are also required to enable students to develop a sound awareness of the physical and social environment in which they are to live and work. The implementation of CA is considered essential to obtaining reliable and actionable measures of students' academic achievement. It is notable that the policy document stresses students' academic engagement, whereas SE in on- and off-campus educational experiences receives less attention.

II)   MU Senate Legislation

In the 2017 MU Senate legislation, teaching and learning are addressed based on expected QA, follow-up, monitoring, and evaluation responsibilities at different levels. There is no explicit definition of what constitutes teaching and learning. Furthermore, the philosophical assumptions that underpin teaching and learning practices and the roles of students and professors in teaching, learning, and assessment processes are missing. The legislation includes "effective teaching" as one form of information used to evaluate teacher performance and approve promotion requests. However, the notion of "effective teaching" scarcely considers students' learning gains, achievement, and outcome measures.

The assessment and evaluation schemes in the legislation prioritize student performance (mainly through the GPA) over setting performance measures that reflect the development of students' academic, social, and work-related competencies. It is surprising that the responsibility for students' on- and off-campus engagement is assigned to student organizations. Accordingly, the roles and responsibilities of the university, colleges, departments, and teachers in facilitating SE in on- and off-campus educational experiences is scarcely mentioned in the legislation. This runs the risk of creating a bottleneck in the attempt to create the supportive, nurturing structures, processes, and resources needed to promote SE at MU.

2.3.3   SE in HE QA policies, strategies, and practices

Following the introduction of a decentralized education system, the Ethiopian HE proclamation places the responsibility for assuring and enhancing quality on the Higher Education Relevance and Quality Agency (HERQA) and on public and private HEIs. In this subsection, existing QA policies and strategies, the role of HERQA, and the roles of public and private universities in assuring and enhancing quality are discussed. In addition, the extent to which QA policies, strategies, and practices emphasize transforming the quality of student learning and outcomes is examined.

I)   HERQA's QA policy, strategy, and practices

As one of its key activities, HERQA is responsible for conducting IQAs to investigate the quality and relevance of programs and of the overall teaching and learning environment. The audit is also intended to assess the appropriateness and

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effectiveness of an HEI's approach to quality care, internal systems of accountability, and review mechanisms (HERQA, 2006, p. 4). In order to facilitate the audit process, HERQA identified ten focus areas, one of which emphasizes evaluating the quality and relevance of an HEI's teaching, learning, and assessment processes and practices (p. 5).

This focus area encompasses eight reference points that are presumed to provide measures of quality. The reference points are intended to assess the appropriateness, variety, and level of innovation of teaching methods. The focus area also measures practices regarding academic advice and tutorial support and the balance between teaching theory and practical sessions. In addition, the reference points emphasize assessing the extent of evaluation of the approaches to teaching and learning and the extent to which assessment policies and procedures and criteria for marking ensure that students are graded fairly and that standards are appropriate and applied consistently. Additionally, the reference points measure the extent to which assessment policies and procedures are communicated, the appropriateness of assessment methods for each course, and their degree of relevance to the learning outcomes (HERQA, 2006, pp. 8–9)

Though the institutional audits give prominence to measuring the quality of teaching, learning, and assessment processes and procedures, their interest in auditing the quality of HEIs does not extend to assessing the role of institutional structures, processes, and resources in transforming students' classroom, on-campus, and off-campus educational experiences. In addition, they place scant emphasis on evaluating the role of teaching, learning, and assessment practices in transforming students' learning achievements and outcome measures.

II) QA practices in HEIs: The case of Mekelle, Jimma and Admas Universities

One of the central roles of HERQA is to encourage and assist HEIs to establish an organizational culture that values quality and commitment to continuous improvement. Accordingly, universities are mandated to establish the necessary QA policies, strategies, and structural arrangements and standards that fit their particular circumstances (HERQA, 2006). In addition, HEIs are required to institutionalize QA and QE practices by periodically conducting self-assessments and producing reports on those efforts.

In order to examine the extent to which institutional QA policies, strategies, structures, and processes actually contributed to the provision of high-quality learning experiences for students, existing QA practices at the three case universities—MU, Jimma University (JU), and Admas University (AdU)—were examined. The results of these analyses are summarized below.

Emphasis of QA policies, strategies, and guidelines

To address quality-related challenges and enhance institutional responsiveness, each case university developed its own QA policies, strategies, and guidelines. The policy statements reflect the emphasis on pursuing quality, with terms like "fitness for purpose," value for money," and "transformation" (AdU-QA policy, 2019; MU-QA policy, 2018; JU-QA policy, 2020). Both the policy and strategic intentions focus on ensuring adherence to national priorities and to the vision and mission of the given university, institutional accountability, and the development of each individual learner's potential. In order to put these policy and strategic intentions into practice, the case universities devised QA guidelines, performance standards, and thresholds. Each also established a QA office to lead and implement QA and QE measures throughout the schools, from top-level management to

college and department levels. These initiatives are evidence of the efforts universities are making to institutionalize QA practices.

Emphasis on transforming the quality of teaching, learning, and assessment practices

In comparison to JU and AdU, MU's QA policy and strategic framework clearly states the key tasks that need to be carried out to assure the quality of teaching, learning, and assessment processes and practices. For instance, the policy states that such "processes should reflect learner-centered and outcome-based teaching and learning practice that keeps proper balance between teaching theory and providing practical experiences" (MU QA policy, 2018, p. 18). It also highlights the importance of implementing appropriate, varied, and innovative instructional strategies that inculcate the idea that students are primarily responsible for their learning. In addition, the assessment strategies used should focus on formative, summative, and diagnostic techniques to promote learning and the achievement of expected learning outcomes (AdU-QA policy, 2019; JU-QA policy, 2020; MU-QA policy, 2018).

Similarly, the college- and department-level quality audit guidelines stress measuring the functionality of teaching and learning policy, the proper use of allotted instructional time, content coverage, the implementation of a range of appropriate teaching methods (including student networking), a balance between teaching theory and practice, the implementation of balanced continuous and summative assessment, and the consistent provision of feedback (AdU-QA policy, 2019; JU-QA policy, 2020; MU-QA policy, 2018). As a vehicle to achieve the QA policy and strategy intentions, the college- and department-level QA guidelines emphasize collecting valuable evidence pertaining to the quality of teaching, learning, and assessment practices.

Considering the efforts involved in crafting these policies, it is fair to conclude that the proper implementation of QA policy and strategic documents would play a salient role in transforming students' educational experiences and learning outcomes. However, evidence from institutional self-assessments and HERQA's IQA reports suggest that the QA policies and strategic directions were not implemented uniformly across all colleges and departments. For instance, the 2007 2007 MU audit report reveals that teaching and learning at MU was then dominated by lectures, with little or no group discussion, question-and-answer periods, or appropriate usage of instructional time (HERQA, 2007b, p. 39). In addition, summative assessment, which bears little relation to course objectives, mode of delivery, and the most highly regarded assessment strategies, dominated assessment practices (HERQA, 2007b, p. 42). However, the report did find that a few programs at MU had a strong practical emphasis. These programs developed a workplace attachment program to provide practice-oriented teaching (p. 39). Similarly, the AdU's 2009 IQA indicated that "though AdU was encouraging the implementation of diverse approaches to teaching and learning, the use of lecture method still dominates the teaching and learning practices" (HERQA, 2007c, p. 6). The report continued that although AU had developed assessment guidelines and established examination committees in each department, there was no sound evidence that students were being assessed on their achievement of the explicit, expected learning outcomes of their courses. In addition, AU took QA issues very seriously, with various structures established to deal with quality matters; however, the university was urged to consider the implementation of more robust methods of assessment that could assure the standards of its awards (HERQA, 2007c, pp. 7–8).

Beyond these examples, institutional QA practices stress measuring the quality of on-campus teaching, learning, and assessment practices. The findings from the

audit reports of the case universities also indicate that minimal importance was given to the design, implementation, and evaluation of off-campus educational experiences. The provision of quality CBE and workplace internship experiences and other forms of enriching educational experiences is disregarded. This might have contributed to the deterioration of HE quality and poor student outcomes. From the perspective of the present study, efforts to assure and enhance quality should adopt a balanced perspective. This requires the establishment of comprehensive QA policies, strategies, and guidelines that go beyond the purely pedagogic realm.

To summarize the major points discussed above, the HE policy intentions and strategic provisions introduced in Ethiopia since 1994 focus on developing students' intellectual, problem-solving, creative, and appreciative skills, scientific and technological competence, intercultural skills, and ability to participate fruitfully in the development and use of resources and the environment at large. The strategic provisions also stress the design and implementation of teaching and learning processes that promote active learning, interpersonal growth, and improved employability and life skills. The strategic provisions clearly state the role of HEIs in promoting the development of industrial competencies and work-ready attitudes and encouraging learning beyond the classroom (from peers and workplaces through placements and projects). The proclamations promulgated since 2003 clearly demonstrate the need to ensure the implementation of student-centered teaching and learning that provide students wider learning and interaction opportunities, encourage student participation, independent thinking, problem solving, and practice-oriented teaching. Moreover, the proclamations stress that teaching and learning processes should create enabling environments and encouraging atmospheres—in class, on campus, and off campus—to facilitate student learning.

However, the policy intentions, strategic provisions, and regulatory frameworks were found to have little positive impact on the quality of HEIs' core processes in practice. This raises the question of what went wrong; was there a missing element? Although these questions require a comprehensive empirical investigation and a thorough review of the available literature and scholarly debate, we have seen that the central actors in the entire teaching and learning enterprise—that is, the students—are largely neglected in university practices. The issue of transforming students' educational experiences by enhancing SE in academic, social, and work-related skills and competencies receives little emphasis. The actual teaching, learning, and assessment practices indicate that HEIs are not creating a supportive and enabling environment that promote students' active engagement in on- and off-campus educational activities. Accordingly, the provision of enriching educational experiences in the form of learning outside the classroom from peers, the campus community, the workplace and the larger environment is limited at best. These limitations are also echoed in the recent Higher Education Policy and Strategy (MOSHE, 2020).

To improve student outcomes, HEIs need to devise structures and processes that will allow them to plan, implement, manage, monitor, and evaluate SE in classroom, on-campus, and off-campus educational experiences. In addition, internal and external QA, QE, and audit processes need to prioritize assessing students' actual levels of engagement and engagement's role in transforming their experiences and achievement of desired learning outcomes. Moreover, HE research and the general scholarly discourse need to emphasize measuring the rate of SE in purposefully designed educational activities and in explicating the factors that either promote or impede students' learning experiences and achievement of established academic, social, and work-related skills and competencies.

3 THE CONCEPTUAL AND THEORETICAL FOUNDATIONS OF SE

This chapter discusses the conceptual and theoretical foundations of SE in HEIs. The discussion is organized around an analytical review of the conceptual, philosophical, theoretical, and empirical denominators of SE. The review and its presentation are aligned with the dissertation's three overarching research questions. Every effort is made to frame the discussions so as to assist the development of a theoretical framework or model relevant to exploring SE concepts, dimensions, typologies, and theoretical assumptions from the Ethiopian HE perspective. In addition, the associations between SE, college experience, learning achievement, and quality of education are detailed to inform the second, quantitative phase of the study.

3.1 An overview of the development of SE in HEIs

Though understood to have originated in US post-secondary education research discourses, the term "student engagement" has received considerable global attention and wider recognition in HE research, policy, and practice. Earlier scholarly works (e.g., Astin, 1984; Kuh et al., 1991; Pace, 1984; Pascarella, 1985; Tyler, 1930) that investigated the role of students' college experience in improving their learning, achievements, and personality development laid the foundation for the emergence and development of the "student engagement" construct and, ultimately, for the creation of the NSSE (Kuh, 2009). However, the emergence of

SE in HE discourses can be attributed to the major paradigm shift in learning theories that advocated a change from "promoting teaching" to "producing learning." This shift challenged the existing university teaching tradition, learning structure, and the nature of roles and criteria for success (Barr & Tagg, 1995). It called for the organization and delivery of learner-centered, learner-controlled, meaningful, supportive, collaborative, and empowering learning environments. The shift also challenged the way that the quality, productivity, and overall success of HE institutions are measured. Rather than concentrating on input and process measures, quality assessments of HEIs now focused on measuring the rate and level of SE, learning gains, completion rates, persistence in college, and the development of knowledge and skills transferable to the world of work and the challenges of life in complex societies (Barr & Tagg, 1995; Coates, 2005; Kuh, 2009). These developments contributed to the growing interest among HE researchers in measuring the level of SE in purposefully designed educational experiences and its role in improving the quality of students' learning outcomes and personal development and in educational accountability and institutional responsiveness (Coates, 2005, 2009; Kuh, 2009; NSSE, 2002). One way of obtaining such valuable information was through undertaking large-scale surveys. The first such effort was the 1999 NSSE in the United States. Since its launch, the NSSE has become the leading source of useful information about US students' college experiences and learning gains and about institutional contributions to fostering SE. This initiative later influenced similar benchmark surveys and indicators in Australia, China, New Zealand, South Africa, Taiwan, and the United Kingdom.

3.2 The conceptual framework of SE

3.2.1 The concept of SE

The concept of SE evolved over time and has represented different things to different scholars (Baron & Corbin, 2012). In his review of the conceptual and empirical foundations of the NSSE, Kuh (2009, p. 6) indicated that SE has been taken to mean simply "time on task," "quality of effort," "student involvement," "social and academic integration," and "outcomes." For Lawson and Lawson (2013), engagement means "energy in action," referring to the effort students exert inside and outside the classroom. From this perspective, SE is expressed in terms of the degree of students' involvement in activities and tasks designed to promote classroom, on-campus, and off-campus educational experiences that are presumed to lead to high-quality learning (Kuh, 2003).

The definition propagated by the NSSE and its analogs dominates the conceptual discussions. The NSSE defines SE as "the amount of time and quality of efforts that students invest in their studies and how the courses and institutions encourages them to engage in purposefully designed educational activities" (Buckley, 2015, p. 5). This perspective acknowledges the role that institutions and program curricula play in designing, organizing, and resourcing learning opportunities for students so that their participation in such activities will lead to improved learning outcomes (Kuh et al., 2005; NSSE, 2015). Similarly, the Australian version, known as the AUSSE, describes SE as the extent to which "students are involved in a range of purposefully designed educational activities that are likely to lead to quality learning" (Coates, 2005, p. 27) and to the policies and practices that institutions use to induce students to engage in such activities (Coates, 2009, p. 3). In the United Kingdom, however, SE is viewed as the process and practice of ensuring students' representation and collecting their feedback to

improve their college learning experiences (Buckley, 2015). Given the multi-dimensional nature of the concept of SE, each of these definitions represents a narrow and specific view (Kahu, 2013; Lawson & Lawson, 2013; Zepke, 2015). For instance, taking a socio-ecological outlook, Lawson and Lawson (2013, pp. 440–441) argue that the SE concept suggests that students' academic, classroom, college, and out-of-college engagement should all be viewed from a holistic perspective. They argue that the level of SE in external social settings influences students' classroom and college-level engagement. Similarly, Kahu (2013, pp. 765–768) highlights the importance of broader structural, sociocultural, and psychosocial factors in influencing SE and its consequences in later academic, social, and institutional development. Adopting an emancipatory, holistic, and critical understanding of engagement, Zepke (2015) reiterates the sociocultural ecology concept of SE. This view supports the role of the social setting and cultural values in facilitating the development of a critical consciousness that encourages students to engage in the wider social and political affairs of their surrounding community (Zepke, 2015, p. 1317). Therefore, it is important that the policies and practices devised to promote SE pay as much attention to life outside the classroom and beyond the campus as to those traditional sites of learning. The contemporary conception of SE thus focuses on institutional support and teaching practices and learning experiences designed to advance the engagement of students in on- and off-campus educational experiences (Coates, 2009).

The above discussion makes clear that SE has not attained a consensus definition. To indicate the lack of clarity regarding the concept of SE, some scholars have even labeled it a "buzz word" or "fuzz word" (Vuori, 2014, p. 16). There are several reasons for the lack of a common understanding. First, the inclusion of multiple perspectives and constructs in defining SE makes the concept inherently complex (Leach & Zepke, 2011). For example, in defining SE, some

scholars emphasize the cognitive (mental, intellectual) investment students make in their learning (Chapman, 2003; Kuh, 2009). Others emphasize the emotions (belongingness, attachment, interest) and commitment (active participation, willingness, involvement) that students exhibit in their efforts to maximize their learning and involvement in college life (Coates, 2005; Hu & Kuh, 2002; Leach & Zepke, 2011). Meanwhile, well-known national assessments such as the US NSSE and analogous efforts in Australia and the United Kingdom place greater emphasis on assessing the behaviors, conditions, and requirements that have been found to promote SE in HEIs (Leach & Zepke, 2011; NSSE, 2002). Therefore, the inclusion of cognitive, emotional, behavioral, and socio-ecological perspectives inherently makes arriving at a clear, concise definition of SE a challenging endeavor. Second, the differences observed among practitioners in HEIs in interpreting SE contributes to lack of a clear conception of SE (Vuori, 2014). Some have applied the notion of engagement more widely. For instance, SE has been used to refer to involvement in learning activities, designing curricula, QA processes, and institutional governance (Ashwin & McVitty, 2015). Third, researchers measure, analyze, and contextualize the various dimensions and forms of engagement differently. The outcomes of these analyses lead to differences in how SE measures are used to inform both policy and practice (Lawson & Lawson, 2013). This suggests that despite its wider recognition, the concept of SE remains vague at best, which calls for a careful assessment of the concept, its typologies and manifestations, its theoretical and empirical foundations, and the contexts in which it is used.

Against that background, the present study adopts the definition provided by Trowler (2010). For Trowler, SE is concerned with the "interaction between the time, effort and other relevant resources invested by both students and their institutions intended to optimize the student experience and enhance the learning outcomes and development of students and the performance, and reputation of

the institution" (p. 3). This perspective seeks to integrate the role of students and institutions in enhancing SE levels and the interactions between intervening variables that either promote or impede SE in HEIs. It also underscores the importance of the amount of time, quality of effort, and necessary resources to promote the development of students, within and beyond the campus experience, and their learning outcomes. In addition, it values the role of SE in measuring student development and the performance and reputation of HEIs. Accordingly, adopting this definition enables an investigation of the amount of time and quality of effort exerted by students and the institutional structures, processes, and resources available to optimize students' educational experiences and learning outcomes, as measured by their learning gains, completion rates, and cumulative grade point averages (CGPA), along with the overall quality of education.

3.2.2 The conceptual organizers of SE

As shown above, scholars acknowledge that the concept of SE is not straightforward (Leach & Zepke, 2011); rather, it is becoming increasingly complex as more constructs are embedded within the concept. Drawing on diverse SE literatures, Leach and Zepke (2011) attempted to find empirical evidence of the content of SE's conceptual organizers. To achieve their aim, they undertook a multiple case study of SE in New Zealand HEIs. Their findings supported the existence of four conceptual organizers identified in the wider SE literature. However, they add the "non-institutional support" perspective to those four existing perspectives. They argue that the data obtained from students reflect the importance of non-institutional support in helping them engage in learning. Leach and Zepke's (2011, pp. 197–201) five conceptual organizers are as follows:

i) **Motivation and Agency**: this perspective represents the extent to which students feel they can work independently, relate to others, and succeed in achieving their personal or career goals through learning.

ii) **Transactional Engagement**: this perspective represents the extent to which students interact and work collaboratively with their peers and teachers both inside and outside the classroom.

iii) **Institutional Support**: this perspective represents the extent to which institutional goals, expectations, culture, and resources (libraries, computers, internet, health, etc.) encourage the engagement of students from different backgrounds.

iv) **Active Citizenship**: this perspective represents the extent to which students feel responsible for and committed to improving existing societal beliefs and practices.

v) **Non-Institutional Support**: this perspective represents the extent to which friends and families support and encourage students to engage in learning outside the classroom.

The above perspectives reveal that engagement is the product of personal, institutional, social, and contextual factors. This means that SE involves the interaction of individual attributes, social, and institutional infrastructures. For students to engage in any educational activity, they need to feel motivated to work either independently or collaboratively, strive to achieve academic or career goals, and relate to others inside and outside their own classrooms. In addition, institutions must create nurturing conditions and infrastructure to promote SE within and beyond campus. Finally, parents and friends play a salient role in encouraging students to engage in learning. Therefore, understanding SE practices requires the contemplation of individual, interpersonal, social, institutional, and non-institutional roles and functions.

3.2.3 The dimensions of SE

The existence of multiple perspectives and conceptual organizers of SE highlights the importance of understanding SE from multiple dimensions. Based on their extensive review, Lawson and Lawson (2013, pp. 434–436) discuss four dimensions of engagement:

i)   **Behavioral**: this dimension appears when students show the character or discipline needed to perform well in their studies. This includes good conduct to comply with institutional rules, norms, and expectations, greater amounts of time spent on academic tasks, and decreased absenteeism, class cutting, and suspensions.

ii) **Cognitive**: this dimension is reflected when students invest their mental energy and participate in and persist with academic tasks likely to lead to better performance. Students' desire and commitment to think deeply and use and monitor various metacognitive strategies to understand concepts, principles and, theories represent the cognitive dimension of SE.

iii) **Affective/Emotional**: this dimension denotes the attachment and level of belongingness that students exhibit for their college (including teachers and peers) and the level of interest and excitement they demonstrate in their studies.

iv) **Youth community**: this dimension refers to the availability of opportunities and resources to facilitate students' involvement in off-campus educational activities that are designed to improve their community engagement and thus contribute positively to their learning outcomes.

Another alternative view of the dimensions of SE is offered by Wimpenny and Savin-Baden (2013, pp. 316–323). Based on the findings obtained from extensive qualitative synthesis research, the authors discuss four types of SE: inter-relational (connecting to a wider set of relationships), emotional (resilience and persistence in their studies), autonomous (feeling they can independently learn and work), and connective and disjunctive (state of associating or dissociating from experiences). Although the first three dimensions (behavioral, cognitive, and emotional) dominate discussions in the literature (Lawson and Lawson, 2013; Quaye & Harper, 2014; Trowler, 2010), the fourth dimension encompasses the broad spectrum of students' classroom, academic, and off-campus engagement.

These engagement dimensions provide a lens through which SE parameters within and outside the college can be measured. As Trowler (2010) warns, these dimensions should be seen as a continuum representing degrees of engagement or disengagement rather than clearly distinct phenomena. Each dimension can be assessed in terms of positive engagement, non-engagement, and negative engagement. Furthermore, students can be positively engaged in one or more dimensions and negatively in others (Trowler, 2010, p. 6). Recent developments in engagement literature (e.g., Lawson & Lawson, 2013; Zepke, 2015) encourage researchers to understand the influence of engagement on one dimension over the others. This approach would allow researchers to examine why engagement increases, persists, or decreases over time. Therefore, the four dimensions of engagement should be seen holistically as offering a balanced and inclusive view of academic, classroom, on-campus, and off-campus engagement (Lawson and Lawson, 2013). This view moves engagement from the classroom or college context into the wider world of the sociocultural milieu. In addition, the holistic perspective serves as a glue that links all the dimensions as essential contributors to student learning and to the improvement of their learning outcomes (Lawson and Lawson, 2013; Zepke, 2015).

In view of the conceptual organizers and dimensions of SE discussed above, the present study adopts a holistic perspective that integrates academic, classroom, on-campus, and off-campus engagement that encompasses the four dimensions of engagement (behavioral, cognitive, affective, and community engagement). Adopting this perspective offers a robust understanding of the role of individual attributes, institutional policies, structures, and processes, and sociocultural contexts in improving SE and learning outcomes. In addition, it provides a systematic understanding of the role of SE in improving students' academic, social, and work-related competencies, which are pivotal in providing measures of students' learning outcomes and the quality of the education provided in universities, whether public or private. However, the adoption of broader perspectives often leads to challenges related to measurement and methodological design. The principal reason for this emanates from the fact that research endeavors that integrated more than two dimensions appear to be unusual in engagement research (Lawson & Lawson, 2013). Therefore, careful planning and selection of appropriate methods and measurement tools need to be carried out in the effort to integrate the four dimensions of engagement.

3.3   Typologies of SE in HE

Four fundamental elements characterize the typology of SE: measures of engagement, the object of engagement, styles of engagement, and measures of outcomes. Using one of the various typologies, several scholars (e.g., Ashwin & McVitty, 2015; Braxton et al., 1991; Coates, 2007; Pike & Kuh, 2005) have attempted to measure institutional effectiveness. A brief discussion of each typology appears below.

3.3.1 SE typologies based on measures of institutional characteristics

Pike and Kuh (2005, pp. 194–198)) identify seven SE typologies that illustrate the key features of HEIs:

i) **Diverse, but interpersonally fragmented**: these institutions offer diverse experiences to students but are weak in creating a supportive and collaborative environment that satisfies students' academic and social needs.

ii) **Homogeneous and interpersonally cohesive**: by contrast, these institutions offer better peer support to nurture SE. However, the experience they organize through those efforts is less diverse in nature.

iii) **Intellectually stimulating**: these institutions promote SE by creating challenging, engaging, and collaborative learning experiences inside and outside the classroom.

iv) **Interpersonally supportive**: these institutions strive to organize diversified learning experiences aimed at enriching faculty and student interaction and collaborative efforts inside and outside the classroom.

v) **High tech, low touch**: these institutions are known for offering technologically intensive and individualized learning experiences.

vi) **Academically challenging and supportive**: these institutions emphasize setting more elevated learning expectations. Though they do not strive to ensure an active and collaborative learning environment, they adopt traditional means to foster students' higher-order thinking skills.

vii) **Collaborative**: these institutions are characterized by organizing peer-oriented collaborative learning centers. They employ technology and closer interaction with faculty to promote SE.

3.3.2 SE typologies based on the objects with which students engage

Ashwin and McVitty (2015, pp. 345–346) describe three typologies of SE by focusing on the interaction of students with various objects at different levels of engagement:

i) **Engagement to form individual understanding**: this is aimed at improving students' learning and learning outcomes. It focuses on the investment of mental energy and the amount of time and effort exerted by students to enhance their understanding, learning achievements, and learning outcomes.

ii) **Engagement to form curriculum**: this is reflected through students' involvement in designing courses and learning materials.

iii) **Engagement to form community**: this focuses on students' involvement in creating a learning community within and outside their HEIs.

In addition, Ashwin and McVitty (2015) identify three degrees of engagement intensity that HEIs adopt in forming their understanding, designing curricula, and developing community: engagement as consultants, engagement as leaders, and partners (p. 346). In shaping the objects of engagement, the three degrees epitomize different levels of expectations, involvement, collaboration, relationships, sense of ownership, and responsibility. For instance, SE as consultants only requires students to provide their opinions on readily available objects such as curricular material. It thus provides little opportunity for students to transform or even modify objects, let alone create new ones. The SE as partners approach shares responsibility and power in the design and creation of the object. Hence, there is greater opportunity for the object of engagement to be transformed through the collaborative effort of students, staff, and institutions. Finally,

engagement as leaders requires students to independently create new objects. Students set their own goals, choose or devise the means to achieve them, and establish an expected performance level. The authors argue that these three forms of SE are hierarchically nested, indicating the central importance of forming an understanding of shaping SE in both curricular and community matters.

3.3.3 SE based on engagement style

Focusing on the nature and styles of engagement, Coates (2007, pp. 132–134) discusses four typologies of SE that characterizes students' academic and social engagement:

i)   **Intense**: these students demonstrate a high level of involvement in their studies and perceive their teachers and the learning environment as supportive and challenging.

ii) **Independent**: these students are highly motivated to study independently and refrain from joining collaborative learning activities either in the classroom or elsewhere on campus. Their perceptions of their teachers and the learning environment, however, are positive.

iii) **Collaborative**: these students show greater excitement about their participation in university affairs and collaborative social events.

iv) **Passive**: these students do not see themselves as active participants in either academic or social forms of engagement.

The outline above of the various typologies of SE indicates the importance of taking a holistic view of engagement. Though the various engagement typologies are based on measures of institutional characteristics, styles and objects of engagement, and the different levels, processes, and goals of engagement, they all encompass the four dimensions of engagement discussed earlier. In addition, as

Trowler (2010) argues, greater caution should be taken not to use these styles or forms of engagement as indicative of students' inherent traits or dispositions. They should be seen as different states of engagement along a continuum, and students are able to move up or down that continuum. Therefore, efforts to examine the role of SE in improving students' on- and off-campus experiences and their achievement of learning outcomes should carefully assess the nature of engagement favored within institutions, the objects with which students engage, and the nature of educational activities designed to amplify the various styles of engagement.

3.4   The theoretical foundations of SE

Though SE concepts have been widely discussed and debated, few attempts have been made to discuss SE's theoretical foundations. In fact, theoretical discourses on SE are a relatively recent phenomenon. Vuori (2014) argues that despite some recent theoretical interest, there are strikingly few empirical studies that illustrate the multiple uses of SE concept in HEI practices. Similarly, Kahn (2014) and Zepke (2017) state that given the wider conceptual debate, few attempts have been made to theorize SE. However, SE researchers have traced the origins and development of SE theory to a number of educational, sociological, political, and psychological outlooks. The multi-dimensional nature of SE concepts could also be attributed to the contribution and influence of various theoretical and philosophical constructs. In particular, the central notions of behaviorism, cognitivism, constructivism, and socio-ecological theories have shaped SE conceptions and measurements. A brief elaboration of these theories follows.

3.4.1 Behaviorist theories

Behaviorism stresses the importance of understanding students' behavior and teaching practices. From this perspective, institutional practices and student behaviors provide relevant indicators of students' level of achievement, the quality of teaching practice, and students' degree of satisfaction (Kahu, 2013). Thus, measuring the amount of effort and time students invest in their learning and the available institutional arrangements to facilitate their engagement and achievement are crucial indicators, most of which are used in the NSSE, a survey that relies heavily on the behaviorist approach to SE.

3.4.2 Constructivist theories

Originating in the work of Piaget (1970) and Vygotsky (1980), constructivism views learners as active in the process of constructing meaning and experience. Knowledge is assumed to exist within the learner, and meaning is constructed through the active interaction of the learner with others in a supportive social context (Zepke, 2017). Therefore, students are believed to inherently possess the desire, motivation, and willingness to improve and refine their knowledge when they are in a context of trust, mutual understanding, collaboration, and facilitation. The teacher guides and supports student learning by creating a learning environment that is challenging, authentic, and dependent on context. Students are required to think either independently or collaboratively on tasks that are relevant.

For constructivists, because the learning environment and activities are learner-centered and -controlled, students become active discoverers and constructors of their own knowledge (Barr & Tagg, 1995). This central premise of constructivism has influenced SE concepts, dimensions, and typologies. As noted in the discussion of SE's conceptual frameworks, the notion of engagement underpins the role of a

self-directed, experiential, meaningful, collaborative, and supportive teaching and learning environment as a precursor for students' learning and achievement of the desired learning outcomes (Coates, 2005; Trowler, 2010; Zepke, 2017). In addition, SE has integrated the social-cognitive element as an essential component. It is logical for Krause and Coates (2008) to suggest that research on SE in HEIs is underpinned by the constructivist view of knowledge and learning (p. 493). The NSSE's engagement themes and indicators also include measures that reflect a constructivist outlook. For instance, some indicators are designed to measure SE in deep learning strategies, collaborative learning experiences, and in enriching on- and off-campus educational experiences.

3.4.3 Psychological theories

This perspective views engagement from internal psychosocial processes. It stresses the importance of understanding the behavioral, cognitive, emotional, and motivational aspects of SE, rather than relying solely on observable behaviors (Kahu, 2013; Leach & Zepke, 2011). It attempts to offer better, more nuanced explanations of the antecedents and various dimensions of SE that encompass behavior, cognition, emotion, and conation (Kahu, 2013). In this view, the amount of effort students exert to develop knowledge and skills, the use of self-regulatory tools and strategies, a sense of belongingness and self-worth, an interest in learning and the will to succeed, and a feeling of enjoyment from performing tasks are all associated with the psychological SE theories (Lawson & Lawson, 2013). In addition, psychological factors such as motivation, self-belief, self-determination, identification and relatedness, and a feeling of autonomy have been found to influence SE in learning (Zepke, 2017).

3.4.4   Socio-ecological theories

This perspective holds that SE should be seen holistically, with consideration of the role of the social setting in influencing SE engagement and students' learning achievements. The broader social, cultural, and political contexts have a bearing on the level, degree, and intensity of SE (Lawson & Lawson, 2013). In addition to the individual attributes that are the focus of the psychological perspective, students' social competence, such as the ability to get along with others, establish relationships, and collaborate in diverse contexts, is also essential to achieving both individual and group goals (Zepke, 2017). In addition, off-campus community programs, infrastructures, and resources contribute to SE and learning achievement (Lawson & Lawson, 2013, pp. 439–442). Taking SE as one ecological sphere, the theory attempts to offer explanations as to how classroom, campus, and community engagement influence one another in a given social context. In doing so, it attempts to explain how engagement increases, persists, and decreases over time (Lawson & Lawson, 2013).

3.4.5   Synergistic theories

This theory posits the importance of valuing process-oriented elements in understanding SE. These elements provide a lens through which the complex pattern of existing relationships between students and their social environment can be viewed (Lawson & Lawson, 2013). Based on the work of Finn (1989), Lawson and Lawson (2013, pp. 441–454) extensively discuss the transactional view of engagement and disengagement processes among students. From this perspective, four elements that are closely temporally intertwined provide salient information about how the social environment influences SE: acts of engagement, benefits and consequences of engagement, conditions and contexts of engagement, and

dispositions and drivers of engagement. Each element possesses its own qualities and indicators and can be a powerful tool to understand the existing complex processes, interactions, and dynamics explaining the nature of engagement or disengagement process (Lawson & Lawson, 2013; Zepke, 2017).

3.4.6 Engagement theories for diverse population in HEIs

Considering the diverse nature of students in HEIs, Quaye and Harper (2009) explore a range of theories to explain diverse students' developmental needs and their implication in devising effective engagement strategies. The authors offer a comprehensive explanation as to why different students experience college differently and how institutions can use SE strategies to improve diverse students' college experiences. Depending on whether the focus is international students, minority students (economic, gender, ethnic, racial, religious, etc.), students with special needs, or some other group, SE researchers have employed a number of theories to examine and address the developmental needs of students from diverse backgrounds. For instance, Anderson et al. (2009) employed transition, surprise, and sense-making theories in an effort to explain the developmental needs of international students and to identify the engagement strategies required to meet those needs (pp. 25–27). Nichols and Quaye (2009) use social constructivism, universal design, and identity development theories to explain institutional, physical, and attitudinal barriers affecting the engagement of students with disabilities (pp. 49–52). Similarly, Mahaffey and Smith (2009) discuss the importance of employing social justice theories to understand the developmental needs and engagement strategies of religious minority students (pp. 86–90). Harris and Lester (2009) highlight the importance of using a feminist poststructuralist and social constructionist model to foster female and male students' identity

development and to devise effective engagement programs (pp. 104–109). Rypisi et al. (2009) employ identity development, cultural capital, stereotype, and imposter phenomenon theories to examine the developmental needs and issues that face female students in science, technology, engineering, and math fields. The use of these theories was found to be pivotal in devising strategies that ensured the provision of equitable representation, better educational outcomes, and effective campus experiences for both male and female students (pp. 122–127).

Beyond the above approaches, critical race theory, organizational learning theory, anti-deficit achievement theory, social identity development theory, and others have been suggested for examining barriers to engagement for students from diverse racial, ethnic minority, low-income, and sexual orientation backgrounds. These theoretical lenses were used to formulate effective on- and off-campus strategies that enhance students' educational experiences, engagement, and learning outcomes. These theories are not engagement theories per se but were rather used as tools to explain the reasons for students' disengagement in college. Using the central themes of these theories, HEIs can devise effective programs to enhance the level of diverse students' engagement and improve their educational outcomes.

3.4.7   The theoretical framework adapted for the present study

The above theoretical discussions show that a number of theories have contributed to understanding the what, why, and how of SE in HEIs. Because each theory clarifies and explains different facets of engagement, research endeavors that rely on a single SE theory might not capture the complicated essence and multiple manifestations of SE in HEIs. They also may not offer a comprehensive understanding of the role of SE in transforming students' on- and off-campus educational experiences and learning outcomes. As discussed above, a growing

body of literature is calling for the adoption of a holistic perspective to capture the essence and role of SE in learning and other social settings. Accordingly, this study adopts Kahu's SE model as its theoretical framework (2013, p. 766). The essence of the model and its importance in this study are discussed below.

The selection of Kahu's SE framework is based on two grounds. First, it provides a robust, holistic, and balanced perspective on SE. The relevant SE parameters advocated by the behavioral, psychological, and sociocultural theoretical perspectives are integrated. In addition, the four dimensions of SE and their role in influencing student learning and achievement have been noted. Zepke (2015) states that "Kahu's model is a useful representation of a holistic sociocultural ecological perspective of engagement" while also noting its inability to "explicitly deal with the development of a critical consciousness that leads to an engagement with wider society and politics" (pp. 1316–1317). Second, this theoretical model is relevant to the present study's research questions. As Figure 1 shows, the framework captured the antecedents of SE that enable the assessment of national and institutional policies, structures, and processes that either promote or hinder SE. Furthermore, the proximal and distal consequences of SE stipulated in this framework are instrumental to examining the relationship between SE and the achievement of academic, social, and work-related outcomes. Hence, the use of this model enables the identification of relevant measures of institutional policies, structures, and processes designed to promote SE in Ethiopian HEIs. In addition, the framework supports the examination of the relationship between levels of SE

Sociocultural Influences: Political and Social Environment

| Structural Influences | Psychosocial Influences | Student Engagement | Proximal Consequence | Distal Consequence |

University

Culture
Policy
Curriculum
Assessment
Discipline

Students

Background
Family
Support

University

Teaching
Staff
Support
Workload

Relationships

Students
Motivation
Self-Efficacy
Skills
Identity

Affect

Enthusiasm
Interest
Belonging

Cognition

Deep Learning
Self-Regulation

Behavior

Time and Effort
Interaction
Participation

Academic

Learning
Achievement

Social

Satisfaction
Well-Being

Academic

Retention
Work success
Lifelong Learning

Social

Citizenship
Personal Growth

Figure 1.   Theoretical framework of SE (Adapted from Kahu, 2013, p. 766).

and student achievement, as measured by CGPA. It reveals system-, structure- and process-level variables that either promote or hinder SE and the development of academic, social, and work-related skills and competencies.

3.5 SE and achievement in HIEs

3.5.1 The concept of student achievement

Different scholars define student achievement differently. The principal reason is the difficulties associated with delimiting, quantifying, and measuring achievement (Cunningham, 2012). In any case, students are considered to be achieving when they acquire the expected set of KSAs that will prepare them to lead happy and successful lives (Education Evolving, 2016). Put another way, students are regarded as achieving when they attain the competencies or learning outcomes stated in the curriculum. Supporting this view, Algarabel and Dasi (2001) state that achievement can be viewed as the intellectual and non-intellectual competence a person has in any area of content or domain of knowledge, skill, and attitude. Hence, achievement measures and performances reflect a degree of mastery in core academic discipline areas (behavioral, cognitive, motor, social, and emotional competence) and entrepreneurial, work, and career development skills.

Achievement has three dimensions: personal, social, and economic. The personal dimension reflects students' self-concepts and beliefs that they can lead successful lives. The social dimension means that they feel that they can contribute positively to broader social issues such as justice and equality. The economic dimension revolves around students' entrepreneurial and innovative competence, which are essential to contributing to the broader economic development of their country (Education Evolving, 2016). These dimensions encompass achievements and performances in core academic discipline areas, in cognitive, non-cognitive, social, and emotional competence, and in work-related skills. However, a number of factors affect student achievement (Algarabel & Dasi, 2001), ranging from personal (ability, motivation, self-efficacy, resilience, etc.) and interactive (school

climate and relationships with parents, teachers, peers, administrators) to larger systems (socioeconomic disparities, discrimination of all sorts) (Bertolini et al., 2012). Therefore, any study that attempts to investigate the link or association between student achievement and other relevant educational variables needs to interpret its findings cautiously, as a number of extraneous factors could interact to influence the observed relationships.

3.5.2   The relationship between SE and student achievement

Though the relationship between SE and students' academic achievement is not straightforward (Lee, 2014) and remains unclear (Axelson & Flick, 2011), a number of studies have indicated that engaged students are more likely to persist, achieve success, and complete qualifications (Astin, 1993; Axelson & Flick, 2011; Hu & McCormick, 2012; Leach & Zepke, 2011). In addition, SE has been found to be related to college outcomes as measured by higher grades, college persistence, and graduation rates (Axelson & Flick, 2011; Hu & McCormick, 2012). Though a number of studies have focused on various outcome measures, a few were found to be especially valuable in shedding light on the relationship between SE and academic achievement for the present study.

Starting from the more recent examples, Boulton et al. (2019) examined the relationship between SE and well-being over time by analyzing the results from a longitudinal survey of undergraduate students at a campus-based university in the UK; they sought to understand how engagement and well-being vary dynamically over an academic term. The survey included multiple dimensions of SE and well-being, with a deliberate focus on self-report measures to capture students' subjective experiences. The results revealed a wide range of engagement with different systems and study activities, giving a broad view of student learning behavior over time. Their findings also indicated that engagement and well-being

vary over the course of the term, with clear behavioral changes caused by assessments. They also indicated a positive interaction between engagement and happiness but an unexpected, negative relationship between engagement and academic outcomes (pp. 1–17).

Using data from the 2000 Program for International Student Assessment, Lee (2014) examined the relationship between SE and academic achievement in US schools. The study focused on examining the direct and mediatory relationship between the behavioral and emotional dimensions of SE and student performance in reading literacy. It found that SE significantly predicted reading performance. The results also indicated that the effect of emotional engagement on reading performance was partially mediated by behavioral engagement (pp. 180–183).

Hu and McCormick (2012) developed a student typology based on the 2006 NSSE survey responses and later examined its utility in understanding direct assessment learning outcomes, self-reported gains, GPA, and persistence from the first to the second years of college. They found a relationship between those typologies and student outcomes, as measured by direct assessment of learning gains, self-reported gains, and persistence behaviors (pp. 745–752).

Similarly, Kuh et al. (2008) assessed the effect of SE on first-year college students' grades and persistence. Their study focused on determining the relationship between key student behaviors, institutional practices, and contextual elements conditions (i.e., SE) and students' academic achievement, as measured by grades and college persistence. The study suggests a positive relationship between SE and academic achievement and persistence between the first and second years of college (pp. 546–558).

Using 2004 NSSE data, Pike et al. (2008) assessed the relationships between first-year students' employment, engagement in educationally purposeful activities, and academic achievement as measured by grades. Among the study's findings, of

particular interest is the modest but still significant positive relationship between SE measures and first-year college outcomes as measured by grades (pp. 571–575).

Carini et al. (2006) examined the connections between SE and measures of students' academic performance. In addition to finding those relationships, they investigated whether an observed relationship was conditional and whether institutions differed in their ability to transform SE into academic performance. They examined the association between SE and experimental measures (critical thinking tests) and traditional measures of academic performance (college GPAs). Their findings suggest a modest but significant positive relationship between SE and both critical thinking and grades (pp. 11–23).

Zhao and Kuh (2004) examined the relationship between participating in learning communities and SE among first-year and senior students from 365 four-year degree-offering institutions. Their findings revealed that participating in learning communities is positively related with SE in purposefully designed educational activities, academic performance, college attendance, and satisfaction (pp. 124–130)

These studies all indicate a relationship between SE and academic achievement; it has also been found to contribute to students' well-being and persistence in college. The amount of time spent studying and the effort expended in actively engaging in educationally purposeful activities appear to either directly influence or mediate the relationship between SE and academic achievement.

However, this is not always true. For instance, Hu (2011) examined the relationship between SE in college activities and student persistence in college; the findings suggest a non-linear relationship between SE and the probability of persisting in college. Specifically, Hu found that, compared to higher levels of academic engagement, the probability of college persistence increased with higher levels of social engagement. Compared to students with mid-level academic engagement, those with the highest levels of engagement in academic activities

were found to be less likely persist in college. Other studies have also found the relationship between SE and learning gains to show variations across different disciplines. For instance, Nelson Laird et al. (2008) explored the effect of discipline on deep approaches to students learning and college outcomes. They used data obtained from the 2005 NSSE and Faculty Survey of Student Engagement (FSSE) and Biglan's *Category of Discipline Areas* (1973). Their findings showed that deep approaches to learning were more prevalent in Biglan's soft, pure, and life fields than in other areas. The largest differences were between soft and hard fields. They also found that seniors who engaged more frequently in deep learning behaviors reported greater educational gains, higher grades, and greater satisfaction with college, and that the strength of these relationships was relatively consistent across disciplinary categories (pp. 480–487).

Though students who are engaged with their studies are more likely to be successful and achieve more in college, care must be taken when discussing the relationship between SE and achievement. The existence of intervening variables that affect such relationships, a lack of clarity about the SE concept, and the mechanisms contributing to an individual's SE (Kahu & Nelson, 2018) all reinforce the importance of considering contextual variations in establishing the relationships between SE and students' outcome measures.

3.5.3   SE research in African HEIs

Research into SE in African HEIs is scant, which limits the understanding of SE concepts, measures, and variables from African perspectives. The lack of African perspectives on SE measures is reflected in the discussions and recommendations of the few studies that have been conducted. For instance, Wawrzynski et al. (2012) highlight the importance of having African perspectives to better understand the

relationship between SE and student outcomes. Their argument is based on the notion that SE has been the research interest of HEIs and secondary schools in the United States, Canada, Australia, New Zealand, the United Kingdom, and, more recently, Malaysia and Taiwan. The existence of only a few studies on African HEIs limits our understanding of the effect of cultural differences on SE and student achievement. In addition, the authors argue that the turbulent reform and restructuring processes affecting African HEIs demand a fresh look into the role of classroom and off-campus engagement in improving students' learning and college experience (p. 106). Therefore, any discussion of SE concepts, principles, theories, and models from an African HE perspective needs to acknowledge the historical, cultural, economic, and political landscape of African HEIs.

Some scholars have tried to fill the research gaps regarding SE in Africa. For instance, Ohamobi and Ezeaku (2016) examined SE variables as correlates of academic achievement in Nigerian senior secondary schools. Their findings showed that there was high engagement among those students and that the more engaged a student is, the better his or her achievement in school. Of the three engagement types measured, the students reported moderate engagement in the cognitive type but high engagement in the behavioral and emotional types (pp. 1–2).

In an effort to contribute to HE quality discourses, Tadesse et al. (2018) examined the psychometric properties of a modified AUSSE at a large university in Ethiopia. The results of their factor analysis showed empirical support for the nine-factor engagement scale and a number of associated factors related to student demographics and the university experience. The results of the multi-validation approach provided specific guidelines to universities using this approach to evaluate the validity and reliability of this construct (p. 188).

Wawrzynski et al. (2012) studied SE at Nelson Mandela Metropolitan University in South Africa. Their study raised three fundamental questions

pertinent to that country's context. The questions revolved around the relationship between student outcomes (self-reported gains in humanitarianism, practical competence, persistence, and academic achievement) and individual student characteristics (student identity groups, gender, and residence on or off campus), the effect of time invested in co-curricular activities (residence events, arts and culture, sports, and student societies) on student outcomes, and factors that affected student involvement. They obtained data from 2,235 undergraduate students (the sample included Black, White, Colored, Chinese, Indian, and international students, which are common groupings in the South African context) who completed paper-and-pencil and online surveys. They found significant practical relationships between student characteristics and student achievement. In addition, they found that student involvement in co-curricular activities (i.e., those who invested more time) had a positive effect on self-reported student outcomes (p. 113). Time commitment to involvement, lack of financial resources, lack of transportation to activities, lack of awareness of activities, limited interest in co-curricular offerings, and schedule conflicts were all found to hinder students from being actively involved in co-curricular activities (p. 116). Though this study confirmed the role of student involvement in co-curricular activities in improving student outcomes, it had a number of limitations. First, it adopted a narrower conception of SE that underemphasized the cognitive, behavioral, and emotional dimensions of engagement. Second, the study relied on students' self-reported gains to measure outcomes. It excluded other measures like test scores or CGPAs. Third, the issue of quality was disregarded. The quality of the co-curricular experiences organized by the university and their role in improving SE and student achievement were not examined. Nevertheless, the study was instrumental in laying the empirical ground for using SE concepts and measures that are relevant to an African HE context.

Another notable study is Pather et al. (2017), who investigated the effect of first-year students' pre-university non-academic factors (family support, financial status, and family education level) on SE experience with institutional support initiatives at a university of technology in South Afirca. They used Leach and Zepke's (2011) conceptual organizers of engagement and Tinto's (1993) student integration model in their theoretical framework. Their study involved 195 participants who completed survey questionnaires, follow-up focus group discussions, and semi-structured interviews. Their findings suggested the significant role that pre-university non-academic factors play in the way students engage with and participate in university support structures and programs. It also revealed that students prioritized academic engagement over social engagement (pp. 178–180). Their study is thus pivotal in shedding light on the role of pre-university factors in influencing SE. The study also found that peer mentorship programs improved students' academic engagement. However, this study also used a narrower conception of SE, which was equated with participation or involvement in mentorship and peer support programs. The integrated use of the cognitive, behavioral, and emotional dimensions of engagement is absent. In addition, the study relied solely on students' self-reported claims, excluding data from lecturers, managers, and other stakeholders to justify or corroborate the claims made. Moreover, the authors did not measure the quality of the institutional services and support structures offered. Hence, studies that attempt to examine the role of SE in transforming students' on- and off-campus educational experiences and their attainment of academic, social, and work-related skills need to adopt a comprehensive conception of SE. Furthermore, the use of SE measures and variables must acknowledge the fact that HEIs in Africa operate in contexts that could produce different measures of the relationship between SE and student achievement.

3.6 The role of SE in enhancing the quality of education in HEIs

Knowing what students learn and are able to do has become a central concern among universities, parents, and stakeholders (Kahu & Nelson, 2018). Associating quality with transformation (Harvey & Green, 1993), a notion that calls for transforming students learning and experiences to promote college outcomes, is pivotal to understanding the role of SE in improving the quality of university education.

Quality as transformation implies changes and improvements in students' learning, achievement, and experience (Harvey & Green, 1993). It considers students, faculty, university, and stakeholders to be co-producers of knowledge and experience. In this approach, fostering collaboration, partnership, and engaging relationships is crucial to enhancing the student experience and promoting deep learning (Gvaramadze, 2011). Moreover, quality as transformation entails the promotion of learner-centered thinking to improve HE quality. Accordingly, it requires the participation, involvement, and collaboration of all relevant parties to enhance students' educational experiences and learning gains by providing quality teaching and governance structures, processes, and resources (Carmichael et al., 2001; Coates, 2005; Gvaramadze, 2011).

Quality as transformation also implies a change in the way HEIs and other stakeholders measure, assure, and enhance quality. Criteria such as reputation, prestige, and ranking of universities, graduation rates, staff qualifications, and institutional characteristics were traditionally used to judge the quality of universities (Campbell, 2015; Kuh, 2001; Kuh et al., 2008). However, the development of the seven principles of good practices in undergraduate education (Chickering & Gamson, 1987), a comprehensive 20-year research review on how college affects students (Pascarella & Trenzini, 1991), and a critical review of what

matters in college (Astin, 1993) shifted the focus of college quality discourses toward improvement in student learning and the enhancement of their experiences. In light of these developments, Kuh (2001), a prominent figure in NSSE literature, argues that knowing the amount of time spent and effort exerted by students in educationally purposeful activities enables us to understand the association between the educational processes, activities, and tasks designed to promote SE and students' actual achievement and the quality of their college experience (p. 15). Further, Trowler (2010) and Coates (2005, 2009) reiterate that the quality of student learning in HEIs is enhanced when SE data are used to make quality-related decisions. Similarly, Carmichael et al. (2001) argue that student learning needs to be placed at the center of HEI quality discussions. These developments contributed to increased interest among HE policymakers and researchers in collecting, analyzing, and using measures of SE data to examine the quality of education in universities (Coates, 2005).

Since the beginning of the 21st century, universities, stakeholders, and national QA agencies have been paying more attention to surveys of students' college experiences, learning gains, and personal development in judging the quality of HEIs (Coates, 2009; Kuh et al., 2008). One example is the launch of the NSSE in the United States, which later influenced SE research in Canada, Australia, New Zealand, the United Kingdom, China, Taiwan, and South Africa. The outputs from these national surveys and related studies were instrumental in providing empirical evidence regarding the key factors that either promote or hinder students' college experiences and learning outcomes and HE quality.

However, the relationship between SE and university quality remains a matter of ongoing research and scholarly debate. To help shed light on the role of SE in QA and QE processes, several studies have been reviewed. The Quality Assurance Agency (QAA, 2018) put together a brief report pertaining to the role of SE in QA and QE practices in the United Kingdom. Institutions were assessed on their

ability to engage students individually or collectively in the development, assurance, and enhancement of the quality of the educational experiences provided. The report concluded that there is a strong culture of engaging students in developing and implementing policies and practices in UK HEIs. This has helped improve students' educational experiences and the quality of teaching and learning processes in HEIs. Therefore, SE has the potential to contribute to QA and QE practices across UK HEIs (pp. 1–5).

Bishop et al. (2012) synthesized the available literature on the role of engaging students in QA structures and processes. They challenge the existing power imbalance that embraces the various roles played by and relationships between teachers, students, and colleges. To address this issue, they advocated for shared responsibility in curriculum development and quality learning and teaching at the subject level. Their argument is based on the position that meaningful student involvement in QA processes and structures is essential to enhancing their collective learning experience. Hence, student-driven measures are essential to improving the quality of teaching and learning in colleges (pp. 3–6).

Gvaramadze (2011) investigated the interplay of SE and QE mechanisms in Scottish HEIs. The results indicated that SE has the potential to improve the quality of teaching and learning, based on the fact that HEIs in Scotland started to consider SE an important tool to enhance institutional responsiveness, academic standards, and the quality of student learning. In addition, putting SE at the center of quality discussions enabled Scottish HEIs to foster cooperation and partnerships that assisted in transforming the quality of students' college experiences. The evidence obtained regarding the quality of institutional systems and processes reflects the quality of students' experiences (pp. 34–35).

Coates (2005) reviewed QA mechanisms in Australian HE and found that discussions of QA systems in HEIs showed little concern for the level of students'

interactions with faculty, the university, and the educational practices essential to generating productive learning. Based on his review, Coates suggests that QA systems and processes in HE should consider SE measures. The author provides a compelling argument for the need to value information about the extent to which students are engaged in a range of purposefully designed educational activities in judging the quality of universities. In addition, the author extensively discusses the limitations associated with relying solely on information obtained about institutional characteristics, teaching, and student-level indicators in evaluating the quality of university education. The inclusion of SE measures offers a potential measure of educational practices and institutional arrangements that will lead to high-quality learning outcomes (pp. 25–31).

Carmichael et al. (2001) reviewed the development of various approaches to quality that focus on transforming student learning. Their survey included school, university, and technical and vocational education and training (TVET) projects and policy frameworks. From their survey results, they conclude that QA systems and processes should place student learning at the center of quality discussions at all levels. The authors called for a shift in QA focus to transforming what students know and can do, the development of teachers as reflective practitioners, promoting organizational learning, and the development of quality teaching and learning processes (pp. 451–462).

The above discussions indicate that measuring university quality is no easy task and requires the adoption of a wide range of strategies and tools. In today's globalized and competitive world, understanding how students best learn and develop is essential for maintaining and enhancing the quality of universities (Hu et al., 2012). SE measures can contribute to a comprehensive understanding of the quality of a university education. Though SE is not the sole factor responsible for either enhancing or impeding student learning and achievement, the empirical evidence suggests that engaging students in educationally purposeful activities can

play an important role in improving the quality of student learning, the college experience, and learning outcomes. Beyond student-level gains, SE also contributes to instilling accountability, responsiveness, and quality cultures in HEIs.

Grounded on the results of the conceptual, theoretical, and empirical reviews outlined above, the present study adopts the view that effective SE transforms students' educational experiences and learning outcomes. Research has underscored the value of engaging students in teaching and learning processes and in the decision-making and governance structures of HEIs. In addition, transforming students' college experiences and learning outcomes and the quality of HEIs requires the adoption of a comprehensive view of SE. Accordingly, the theoretical model of SE chosen to conduct the present study is crucial for exploring existing HE and QA policies, strategies, processes, and practices. In doing so, the framework enables the conceptualization and measurement of SE and allows context-based inferences to be made on the role of SE in transforming students' on- and off-campus educational experiences and their development of academic, social, and work-related skills and competencies.

4 RESEARCH APPROACH, DESIGN. AND METHODS

This chapter discusses the broad philosophical assumptions that guide the overall work presented in this dissertation and the research approaches and designs used to investigate the three research questions. In addition, the chapter discusses the specific methods, techniques, and procedures used to select study sites and samples, data collection tools and instrumentation, and data analysis and interpretation.

4.1 Philosophical interpretive worldviews

Scholars argue that our perceptions of our world, our day-to-day activities, and our previous experiences all influence our assumptions, which in turn help determine the choice of research approaches, designs, and methods. The way a researcher sees the nature of reality, knowledge, and the method of knowing is powerfully associated with that researcher's philosophical assumptions (Creswell, 2014; Fraenkel & Wallen, 2009; Gay et al., 2012; Mertens, 2010). Therefore, it is essential to discuss the philosophical positions held by the researcher and their influence in shaping the research approach selected. Generally, four perspectives dominate discussions about the philosophical beliefs held by researchers: post-positivist, constructivist, transformative, and pragmatist. A brief summary of each worldview is provided below, based on the work of Mertens (2010) and Creswell (2014).

4.1.1 Postpositivist worldviews

Postpositivism can be regarded as an improved version of traditional positivist philosophy. This worldview operates under the assumption that truth or reality is independent of the human mind. It can only be reached through the application of scientific methods, which includes conducting careful observation and measurement of objective reality (Creswell, 2014, pp. 7–8). It embraces the idea that "causes" determine "outcomes." For postpositivists, the social world can be studied in the same way as the natural world, using a method that is value-free and allows for explanations of causality (Mertens, 2010, p. 10). Therefore, researchers operating under this assumption attempt to examine the causes that influence certain outcomes. They first reduce the broader idea into specific variables that comprise sets of questions or hypotheses. Testing those hypotheses and finding plausible answers to the research question(s) posed require careful observation and measurement of the phenomenon being measured objectively. Hence, the search for truth or knowledge requires the researcher to test, refine, and verify existing scientific theories and laws by using scientific methods and procedures (Creswell, 2014; Mertens, 2010). This position is particularly common in quantitative research approaches.

4.1.2 Constructivist worldviews

Constructivism grew out of criticisms of the postpositivist paradigm (Mertens, 2010). As opposed to examining objective reality, constructivists seek to understand the meaning of individual experiences (Creswell, 2014). Forming such meaning is subjective in the sense that individuals construct their own worldviews based on their understanding of certain phenomena. Because the historical, social,

and cultural fabrics and levels of interaction between individuals influence experiences, the meaning constructed needs to be negotiated socially and historically (Creswell, 2014; Mertens, 2010). Therefore, the researcher's main goal is to understand the phenomenon under study from the participants' points of view. The inductive inferences made from participants' views later serve to form a theory or pattern of meaning. According to constructivists, the researcher's historical, social, and cultural background influences his or her interpretation of the situation under investigation; therefore, researchers needs to state their worldviews and positions from the outset (Creswell, 2014, p. 9; Mertens, 2010, p. 16). This approach is very common in qualitative research.

4.1.3   Transformative worldviews

Both Creswell and Mertens report that transformative worldviews emerged due to the felt limitations of postpositivist and constructivist worldviews. Researchers adopting this worldview criticized postpositivists for their limitations in promoting social justice for underrepresented and marginalized individuals in a society. In addition, advocates of this worldview maintained that constructivists failed to bring real change by providing actionable solutions to address injustices and power issues affecting the day-to-day lives of marginalized individuals (Creswell, 2014, pp. 9–10). Therefore, this worldview calls for researchers to tackle topics that will bring real change to social and political structures and address inequalities and discrimination of all sorts (Mertens, 2010, p. 21). A transformative researcher adopts an action- or reform-oriented research agenda, selects participatory and collaborative research strategies, and integrates relevant theories to address the social and political injustices affecting marginalized groups (Creswell, 2014; Mertens, 2010).

4.1.4 Pragmatist worldviews

The central theme of the pragmatist worldview is finding what works in a given context or situation. According to Mertens (2010), pragmatists reject the scientific notion that the real world or truth can be examined solely with a single scientific method (p. 35). Accordingly, individuals' worldviews should not be fixed; rather, they need to change to reflect existing circumstances and situations (Creswell, 2014). Rather than stressing a single philosophical assumption and method, pragmatist researchers use multiple assumptions and all the approaches at their disposal to address the research problem under investigation. Hence, there is no one best way of finding solutions to existing social, political, and cultural problems (Creswell, 2014, pp. 10–11). Researchers operating under this assumption use quantitative and qualitative approaches in order of their degree of importance to find plausible answers to research questions or test hypotheses. Pragmatism is often found in mixed methods research (Creswell, 2014; Mertens, 2010).

4.1.5 The researcher's worldview

Of the four worldviews discussed, the pragmatist worldview had the most influence on the overall process of this study. The way the researcher approached the examination of the research problem and the resultant choice of research strategies, methods, and procedures reflect an underlying pragmatic philosophy. Principally, the researcher believes that "truth" is relative and that "reality" is multiple and shaped by our personal, historical, social, and cultural background. For him, "truth" or "knowledge" is acquired through our sensory experiences and mental abstractions. Therefore, there is no one best way of knowing or reaching truth or reality. The researcher strongly believes that using multiple approaches, methods, and procedures will facilitate our understanding of the different facets of

truth or reality from wider perspectives. This approach enables the researcher to develop a comprehensive and complete understanding of the problem under investigation.

Being a pragmatist, the researcher selected a mixed methods approach to find plausible answers to the research questions. Mixed methods researchers embrace the philosophical assumption of pragmatism (Creswell, 2014; Mertens, 2010; Teddlie & Tashakkori, 2009). Furthermore, there are several reasons why SE research effectively necessitates the adoption of a pragmatist worldview. First, the conceptual root of SE has been—and continues to be—contested using a number of philosophical and theoretical assumptions, each of which reveals or emphasizes a different facet of SE; thus, the adoption of a single theoretical framework or philosophical underpinning cannot provide a comprehensive and context-dependent conception of SE and its role in transforming student outcomes. Second, though research endeavors on SE often adopt quantitative research approaches, especially surveys, a number of researchers have also employed qualitative research approaches to approach SE issues. Since the adoption of a single approach or method will reveal only an incomplete picture of empirical realities (Patton, 1990), it is essential to integrate two or more theoretical frameworks to obtain a relatively comprehensive account of SE constructs and measures. Third, our understanding of SE in HE predominantly comes from literature originating in the West (e.g., Australia, Canada, the United States, and the United Kingdom). This limits our understanding of SE in other social, cultural, and political settings (Wawrzynski et al., 2012). In addition, little is known about whether the philosophical underpinnings and conceptual and theoretical frameworks discussed in the SE literature that focuses on Western HEIs holds true in other areas, including Africa. Therefore, the adoption of research designs, methods, and procedures that adhere to the underlying philosophical assumptions

of the pragmatic worldview will reflect the actual contexts and circumstances of Ethiopian HEIs.

4.2 Research approach, design, and methods

The present study adopts a mixed methods research approach,[1] in which the researcher collects both qualitative and quantitative data and integrates the two approaches when analyzing and interpreting the data using specific designs relevant to the philosophical assumption and theoretical framework chosen for the study (Creswell, 2014; Mertens, 2010; Teddlie & Tashakkori, 2009). The central premise behind this research approach is that all methods have their pitfalls and employing a combination of qualitative and quantitative approach minimizes the effects of those limitations while enabling the researcher to present a complete picture and clear understanding of the issue being investigated (Creswell, 2012, 2014; Fraenkel & Wallen, 2009; Gay et al., 2012).

Multiple occasions call for a mixed methods research approach. The first is when the researcher believes that using either qualitative or quantitative data alone will not be sufficient to provide a complete picture of the research problem. The second is when the researcher values the importance of using the two forms of data because of their inherent strengths in addressing the research questions. The third is when the researcher is interested in providing an alternative perspective

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[1] Creswell (2014) distinguishes between research approaches, designs, and methods. Research approaches denote the plans and procedures that reflect that broader worldviews and detailed data collection, analysis, and interpretation processes. Research designs denote a strategy or procedure of inquiry associated with a given research approach. Finally, research methods represent the specific procedures adopted to collect and analyze data. The present study uses Creswell's distinctions when using these terms.

regarding the issue under examination (Creswell, 2012, 2014; Mertens, 2010; Teddlie & Tashakkori, 2009).

Seeking convergence between the two approaches is not new in social science research. In fact, recent trends show an increased use of mixed methods approaches for examining complex research problems in the social and educational sciences (Creswell, 2014; Fraenkel & Wallen, 2009; Mertens, 2010; Teddlie & Tashakkori, 2009). It is also argued that a good research design combines appropriate elements and techniques from across traditions and epistemological perspectives (Guest et al., 2014). This derives from the fact that methodological triangulation and seeking convergence across qualitative and quantitative data are considered common features in all good research (Teddlie & Tashakkori, 2009) and enhance construct validity (Patton, 1990).

The present study's investigation into SE and its role in transforming students' educational experiences and learning outcomes is no exception. The principal reason for adopting this approach is that SE is a multidimensional construct that requires the integration and use of multiple theoretical frameworks to discern the dimensions, typologies, antecedents, and consequences of engagement. Furthermore, the exploration of SE and its role in transforming students' on- and off-campus educational experiences and learning outcomes requires the collection, analysis, and interpretation of multiple forms of data. Since the use of a mixed methods approach helps unveil different aspects of empirical realities (Denzin, 1978), adopting it in the present study helps uncover policy-, system-, structure-, and process-level variables that either promote or hinder SE and the development of students' academic, social, and work-related competencies.

However, there are certain limitations that merit a brief discussion. This research approach consumes more time, requires the collection and analysis of voluminous amount of data, and entails mixing or integrating the two forms of data, the success of which depends on researcher's level of competence (Creswell,

2012; Mertens, 2010). Though these limitations do pose some challenges, the researcher believes that they can be addressed without adversely affecting the integrity and quality of the study. The research presented here is a doctoral-level study with two years dedicated to research work, which gave the researcher ample time to carry out all the necessary research activities. In addition, participation in this doctoral study necessitated the acquisition of advanced research skills, including sufficient experience in conducting both qualitative and qualitative research. The researcher's previous experience in both qualitative and qualitative approaches and the advanced methodological courses taught provided him with the opportunity to address the challenges of mixing and integrating the two forms of data. As a result, organizing, analyzing, and interpreting the voluminous qualitative and quantitative data collected using the ATLAS.ti and SPSS software packages and later integrating the results of both data sets was found to be within the professional expertise of the researcher.

4.2.1   Research design

The order in which qualitative and quantitative data are collected, analyzed, and mixed strongly influence the research design in mixed methods approaches (Mertens, 2010). Though Creswell (2012, p. 540) had identified six designs associated with that approach, he later collapsed them into three designs (2014, p. 15). Related classifications of mixed methods design with some variations are also discussed in Mertens (2010) and Teddlie and Tashakkori (2009).

From the alternative designs, this study adopted a *mixed exploratory sequential research design*, which calls for the collection and analysis of qualitative data first, followed by the collection and analysis of quantitative data. Thus, the study employs a *two-phase* approach. In this combination, the researcher gives more

weight to qualitative data collection and analysis, then collects and analyzes the quantitative data in order to test, explain, and refine the qualitative results (Creswell, 2012, 2014; Fraenkel & Wallen, 2009).

Exploratory sequential research designs are used when the researcher's intention is to explore a phenomenon generally, identify themes from discussants' point of views, develop an instrument, and test the instrument to examine convergence (Creswell, 2014). In addition, it is used to generate hypotheses for further enquiry or to develop a theoretical model that is grounded on the existing data (Guest et al., 2014). The use of this design is encouraged when existing instruments, variables, and measures are not suitable for the context in which the study is to take place (Creswell, 2012; Fraenkel & Wallen, 2009). In such circumstances, the researcher explores the phenomenon, variables, or measures under consideration using a small number of participants, identifies emerging themes, typologies, and classifications, develops instruments that are more appropriate to measure the variables, collects data from randomly selected samples to build on or refine the qualitative results, and generalizes the findings to a larger population (Creswell, 2014).

The present study uses this design because SE research is relatively new in the Ethiopian HE context. Our understanding of what SE is, of how it is translated into HE QA policies, strategies, structures, and processes, and of the role it plays in transforming students' college experiences, achievements, and outcomes comes almost entirely from research outputs and scholarly discussions in a Western context. In addition, SE research typically focuses on the collection and analysis of large-scale quantitative data using surveys (e.g., AUSSE, 2022; NSSE, 2020). This has limited our understanding of what constitutes engagement or disengagement, the kinds of variables worth investigating to understand the relationships between SE and student achievements and outcomes from the perspective of developing country. Moreover, little is known about whether the conceptual denominators and

theoretical frameworks in the SE literature focusing on the West holds or will yield different result in other contexts. Researchers adopting the underlying assumptions of pragmatism have argued that differences in economic, social, cultural, and political contexts produce different research outcomes. Therefore, rather than adopting a design that calls for the examination of a predetermined set of variables or measures, the research design selected provided the researcher with the potential to explore SE from the perspectives of HE policymakers, strategy formulators, and practitioners working to improve students' college experiences and learning outcomes in public and private Ethiopian universities. In addition, it enabled the researcher to identify the relevant conceptual organizers, dimensions, typologies, and theories of SE from Ethiopian HE perspectives and the identification of variables that are most closely associated with transforming the quality of students' college experiences, learning gains, and outcomes. This allowed for comparisons to be made with established SE research and assisted in identifying and testing an appropriate survey instrument for use in the subsequent phase of the study.

By adopting this research design, the study provides a detailed account of the concepts, typologies, and domains of SE and the role it plays in improving students' on- and off-campus educational experiences and learning outcomes. Further, using qualitative and quantitative data as proxies, the study elaborates the state of educational quality in the sampled universities. Moreover, this design revealed system-, structure-, and process-level factors that either promote or hinder SE and learning achievements. Figure 2 illustrates the research design and the overall research process used in the present study.
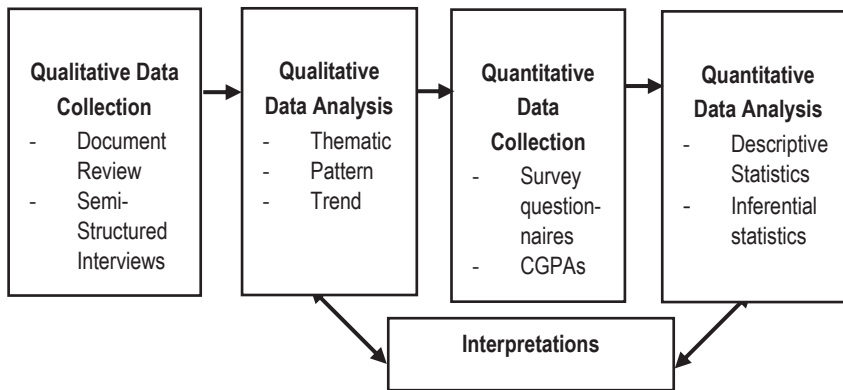
Figure 2. Exploratory sequential design method, adapted from Creswell (2012, p. 541).

4.2.2 Specific designs used

To address the overarching qualitative research questions, applied thematic analysis was employed. Applied thematic analysis is "a rigorous, inductive, set of procedures designed to identify and examine themes from textual data in a way that is transparent and credible" (Guest et al., 2014).[2] The use of this design was enormously helpful role in assisting the researcher to inductively derive the underlying SE concepts, dimensions, and typologies and SE's role in transforming students' college experiences and learning outcomes. In addition, it helped obtain results that were crucial in locating an appropriate SE survey instrument that was later tested using quantitative methods. One intention of using the exploratory sequential design was to develop or locate a relevant instrument based on the results of the first-phase, qualitative data and test the instrument using surveys (Creswell, 2014; Fraenkel & Wallen, 2009). Accordingly, a survey research design

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[2] Guest et al. (2014) add that applied thematic analysis is a set of inductive and iterative techniques designed to identify themes, categories, and concepts within texts; they are then used to build theoretical models or find solutions to real-world problems.

was used to test the generated themes that make up SE concepts, dimensions, typologies, and theoretical constructs.

4.2.3 Research methods

Research methods are associated with the procedures and techniques used to obtain samples and collect and analyze data. It also includes the specific tools used to measure the variables essential to addressing a study's research question(s) (Fraenkel & Wallen, 2009; Gay et al., 2012). The discussion below details the methods, procedures, and techniques used in the present study.

4.2.3.1 Sampling frame and sampling techniques

4.2.3.1.1 Unit of analysis

In any research endeavor, defining the unit of analysis, target population, and study participants or samples is essential. This allows the researcher to identify the level at which data will be collected, the nature of informants, and the techniques used to select respondents (Creswell, 2012, 2014; Fraenkel & Wallen, 2009; Gay et al., 2012). In the present study, the university was the unit of analysis. In Ethiopia, there are 52 public and four private universities (MOE, 2018). Public universities are divided into four generations: eight in the first, 14 in the second, 13 in the third, and 11 in the fourth; six have only recently opened. For the qualitative phase of the study, two universities, one public and one private, were selected. Using local rankings by HERQA and considering years of establishment, I purposefully selected JU, a well-established public university ranked in the top three nationally, and AdU, a private university also in the top three in Ethiopia. The use of purposive sampling was instrumental in satisfying one of the requirements to use

applied thematic analysis (Guest et al., 2014). For the quantitative phase of the study, one public (MU) and one private (AdU) were randomly selected.

4.2.3.1.2   Target population

The target population from which study participants and thus samples were drawn encompassed MOSHE, Higher Education Strategic Center (HESC), and HERQA directors, the sampled universities' transformation and quality assurance office directors (TQADs), college transformation and quality assurance (CQA) heads, department heads, and all teachers and graduating class students enrolled in all departments. The identification of these target populations was made due to their presumed roles and responsibilities in developing, implementing, and evaluating the HE and QA policies, strategies, regulatory frameworks, and guidelines intended to promote the development of students' academic, social, and work-related skills and competencies.

4.2.3.1.3   Samples for the qualitative phase of the study

For the first phase of the study, participants were selected through purposive sampling, an extremely common sampling technique in qualitative research (Creswell, 2012; Fraenkel & Wallen, 2009) that is also the most appropriate sampling technique in a study that uses applied thematic analysis (Guest et al., 2014). This technique is used when the researcher's prior knowledge convinces him or her that the samples possess the necessary information that would help explain the phenomenon under investigation (Fraenkel & Wallen, 2009). More specifically, the study employed the theoretical or concept sampling technique. This form of purposive sampling helps select individuals or research sites because they help the researcher understand a concept or a theory (Creswell, 2012; Fraenkel & Wallen, 2009). Respondents from MOSHE, HESC, HERQA, and transformation and QA offices, along with the heads of different levels at the sampled universities, were

believed to possess pertinent information related to the national and institutional HE and QA policies, strategies, regulatory frameworks, structures, and processes aimed at improving students' on- and off-campus educational experiences and learning outcomes. Thus, responses obtained from these samples were used to explore how SE is understood and reflected in HE and QA policy intentions, strategic formulations, structural arrangements, undergraduate curricula, and teaching, learning, and assessment practices. Accordingly, these potential participants were purposefully selected to take part in semi-structured interviews. Table 1 shows the distribution of -structured interview participants.

Table 1.   Sampling distribution

Participant Institutions	Directors	TQADs	CQA Heads	Department Heads	Total
MOSHE	1				1
HESC	1				1
HERQA	1				1
JU		1	5	5	11
AdU		1	1	1	3
Grand Total	**3**	**2**	**6**	**6**	**17**

4.2.3.1.4   Samples for the quantitative phase of the study

In order to obtain samples for the quantitative phase, simple random and stratified sampling techniques were used. Simple random sampling techniques were used to select one university each from the full list of Ethiopia's public and private universities. The use of simple random sampling ensured an equal chance for all universities to be included in the study, with exclusion occurring only due to chance (Creswell, 2012; Fraenkel & Wallen, 2009; Gay et al., 2012). After the universities were randomly selected, stratified random sampling was employed to select sample instructors and students proportionally for pilot testing and main-

study data collection purposes. Stratified sampling is used when the population displays disparity on sample characteristics and when using simple random sampling may affect affecting the representation of participants in categories other than the one needed for comprehensive statistical analysis (Creswell, 2012). The sampled public and private universities differ in terms of number of colleges, institutes, schools, departments, years of experience in teaching, research, and outreach services, staff qualifications, material and financial resources, size, and number of programs and students enrolled. These differences have been reported as influencing SE levels, educational experiences, and learning outcomes (Coates, 2005) and the extent to which national and institutional QA policy intentions and strategies are translated into practice. In addition, previous research suggests differences in disciplines taught and student year levels can contribute to differences in SE levels (Nelson Laird et al., 2008, pp. 480–487). The existence of such differences creates variance in sample characteristics. To ensure representation, therefore, forming strata based on college, institute, school, department, nature of discipline, and student class year was found to be pivotal to select proportional samples from each subgroup. Figure 3 illustrates the process of proportionally selecting samples.
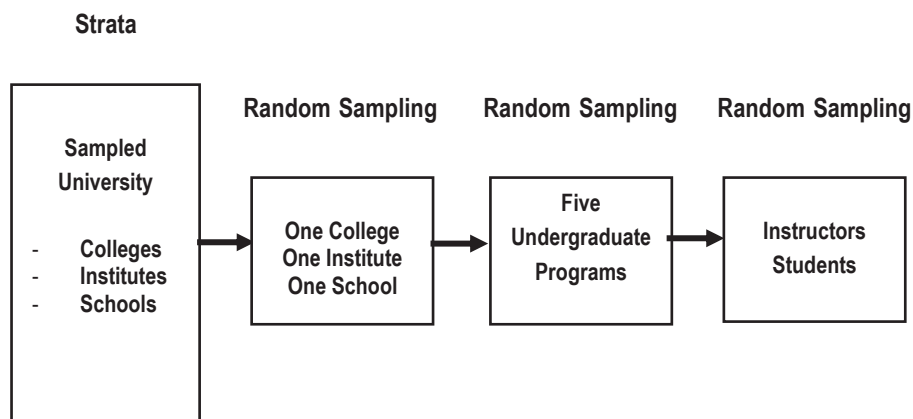
Strata

Figure 3.   Stratified sampling procedure; adapted from Creswell (2012, p. 145).

4.2.3.1.5   The selection of disciplines

The next step involved selecting sample disciplines taught in undergraduate programs. This was achieved, first, through identifying disciplinary areas offered in the sampled colleges, institutes, and schools and then randomly selecting disciplines and departments from which students and teachers were drawn to create samples (Figure 2). Classifying disciplines to understand the effect of different disciplines on SE is not new (e.g., Nelson Laird et al., 2008). In fact, Hagel et al. (2012) argue that universities need to be careful in making internal, cross-disciplinary comparisons, as little is known about how SE varies across disciplines.

The earlier works of Biglan (1973) contributed to our understanding of the nature and typologies of HE disciplines. Biglan classified disciplines into three binaries: *hard-soft, pure-applied*, and *life-non-life*. Biglan's classification concentrated on assessing the degree of accord between content and methods, the degree of applicability, and the nature of the academic tasks required (Nelson Laird et al., 2008, p. 472). Similar endeavors are also found in Becher and Trowler (2001). These authors classified disciplines based on their inherent academic culture, as

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measured by the level of cognitive investment and the social cultures expressed in the form of feelings of belongingness and commitment to one's discipline and its specific characteristics. Though these classifications are popular in research endeavors, scholars have also challenged their rigidity, claiming instead that disciplinary differences are blurred and sometimes overlapping; thus, such boundaries may be artificial. For instance, advocates of modular curriculum design have argued for the integration of academic disciplines (e.g., Biggs, 1999; Knight, 2001).

In Ethiopian universities, the way disciplines are organized and taught indicates that some disciplines are solely taught in colleges or departments that do not accord well the nature of the discipline; in other cases, widely different disciplines coexist and are taught in the same colleges or departments. Despite these awkward realities, the present study adopted Biglan's (1973) classification to ensure a balanced representation of disciplines from all typologies. To achieve this aim, complete lists of disciplines offered at the sampled colleges, institutes, and schools were obtained. Next, disciplines taught in undergraduate programs were assessed in line with Biglan's classification. Later, a modified version of disciplinary categories that reflected the existing nature of the disciplines in the sampled colleges was created. Finally, sample disciplines were selected using a simple random sampling technique.

Table 2.   Sample disciplines (qualitative phase)

	Hard		Soft	
	Life	**Non-life**	**Life**	**Non-life**
Pure	Environmental Science	Mathematics	Psychology	Amharic Folklore
		Physics		Geography
Applied	Medicine	Engineering	Nursing	
			Law	
			Governance	
			Educational Administration	

Source: Field Data from JU and AdU Central Registrar and Programming Office (2020).

4.2.3.1.6   The selection of students and instructors

The quantitative phase of the study focused on graduating class undergraduate students and their instructors. Senior students have a fuller university experience that allows them to better understand existing institutional policies, structures, and processes. In addition, they have the most experience in their field of study (Nelson Laird et al., 2008, p. 474). Therefore, selecting samples from graduating class students enabled the best possible examination of students' educational experiences as gauged by their levels of engagement, learning achievements, and outcomes. To ensure representation, sample students and teachers were selected randomly from the disciplinary areas in Table 3 and 4.

Table 3. Number of sampled instructors and students (quantitative phase)

Categories	Disciplines	Graduating class students	Sample students n^{th} ratio	No. of teachers	Sample teachers
Hard-Applied-Non-Life	Computer Science	112	37	20	20
	Information Science	46	15		
Soft-Applied-Non-Life	Accounting and Finance	278	92	53	53
	Marketing Management	247	81	22	22
	Business Management	138	45	23	23
Total	5	821	270	118	118

Source: Field Data from AdU Central Registrar and Programming Office (2021).

Table 4. Number of sampled instructors and students (pilot testing)

Categories	Number of disciplines	Randomly selected disciplines (30%)	Sample students	Sample teachers
Hard-Pure-Life	7	Biology	3	3
		Zoology	3	3
Hard-Pure-Non-Life	7	Chemistry	3	3
		Mathematics	3	3
		Physics	3	3
Hard-Applied-Life	6	Veterinary	3	3
		Medicine	3	3
Hard-Applied-Non-Life,	8	Civil	3	3
		Computer	3	3
		Electrical	3	3
Soft-Pure-Life	4	Anthropology	3	3
		Psychology	3	3
Soft-Pure-Non-Life	10	Geography	3	3
		English	3	3
		History	3	3
Soft-Applied-Life	9	Educational Science	3	3
		Sport Science	3	3
Soft-Applied-Non-Life.	11	Journalism	3	3
		Accounting	3	3
		Economics	3	3
Total	62	20	60	60

Source: Field Data from MU Central Registrar and Programming Office (2020).

4.2.3.2   Data-gathering tools

Various data collection instruments were used to gather both primary and secondary data during the first and second phases of the study. The tools used and the procedures followed are discussed below.

4.2.3.2.1   Document reviews

Document analysis, which is also called "archival analysis," is a common data collection technique used by qualitative researchers. The data obtained from document review can enable the researcher to gain important insights, spot potential trends, and identify other developments involving the phenomenon being measured (Gay et al., 2012, p. 388). Accordingly, valuable documents such as national and institutional HE and QA policies, strategic documents, legislative frameworks, and guidelines were reviewed to assess the policy intentions, strategic provisions, and legal bases devised to improve the quality of students' on- and off-campus educational experiences and learning outcomes. In addition, national and institutional QA and QE guidelines, undergraduate curricula, and teaching, learning, and assessment protocols were examined to explore the extent to which students' educational experiences and outcomes are prioritized when transforming SE. A systematic content analysis method was used to identify major themes and patterns.

4.2.3.2.2   Semi-structured interviews

An interview is an oral, question-and-answer session between a researcher and an individual respondent, whether in person, on the telephone, or over a computer connection (Gay et al., 2012, p. 186). Interviews permit researchers to obtain important data related to perceptions, feelings, and thoughts that may otherwise remain hidden when information is collected using questionnaires and

observations. In addition, interviews allow researchers to obtain information about past events or the way things used to be (Gay et al., 2012, p. 386). Two forms of interviews are distinguished in research: structured and semi-structured. In a structured or formal interview, researchers formally engage in asking a predetermined set of specific questions. By contrast, in semi-structured or informal interviews, the researcher uses a set of questions only as a guide to allow participants to drive discussions and reflections (Gay et al., 2012). Semi-structured interviews provide the researcher with the opportunity to determine participants' experiences and complex or personal information (Gay et al., 2012, pp. 386–387).

In this research, in-depth semi-structured interviews were employed to collect data from purposefully selected MOSHE, HESC, and HERQA policy experts, university- and college-level TQADs, and department heads. The items in the interview were designed to assist in the exploration of conceptions, perceptions, intentions, and provisions related to the student's role, the quality of classroom and college-level experiences, CBE, placement and internships, and students' learning outcomes. In addition, the guide enabled the researcher to examine existing policies, structures, and processes aimed at improving the quality of students' learning experiences and outcomes. The interview sessions focused on explicating the extent to which national and institutional QA standards, monitoring, and evaluation schemes are—or are not—improving SE and learning outcomes. The guiding interview questions were designed to help answer the study's three overarching research questions while allowing participants to engage in refining their ideas and positions.

4.2.3.2.3 Survey questionnaire

A questionnaire is a written collection of survey questions to be answered by a selected group of study participants (Gay et al., 2012, p. 186). Survey research, the design selected to undertake the quantitative phase of the present study, requires

using a questionnaire to collect standardized and quantifiable data from a sample or population of interest.

Using a questionnaire is advantageous in SE and QA research for a number of reasons. Compared to observation, a questionnaire is less expensive and gives more opportunity for students and teachers to reflect on and evaluate students' overall college experiences and engagement in academic and non-academic activities. In addition, a questionnaire enables the collection of sensitive information that may be known only to individual students and teachers in regard to existing QA systems, structures, and processes (Coates, 2005, p. 32). It also enables the researcher to obtain objective data.

In exploratory sequential design, qualitative analysis results are used either to develop a new instrument or locate an existing one to test the constructed or generated themes (Creswell, 2012, 2014). Accordingly, a survey questionnaire that closely resembled the concepts, dimensions, and theories generated from the first phase, qualitative data was located (details are provided in chapter six).

After locating relevant students' NSSE (2020) and instructors' FSSE (2020) survey questionnaires, a pilot test was conducted at MU.[3] Conducting a pilot test enabled the researcher to obtain evidence on the validity of the instruments. Accordingly, evidence on the content, response process, internal structure, and consequences of the instruments was collected and analyzed (Im, Shin, & Cheng, 2019). Four subject experts, 60 senior students, and 60 teachers from MU were selected for the pilot testing process. Based on the evidence collected, measures were taken to enhance the internal consistency of the content, the responses, and the construct validity of the questionnaires. In addition, a variety of measures were

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[3] A separate pilot study report is attached in Appendix A. The report included a detailed discussion of the methods, procedures, and results of the pilot testing process on adapted NSSE and FSSE questionnaires.

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taken to rectify the deficiencies observed in the questionnaires (e.g., omitting, restructuring, and contextualizing items that were considered irrelevant) and to improve the quality of these items (Gay et al., 2012, p. 186). The improved NSSE and FSSE instruments were used to collect data from sampled graduating class students and instructors at AdU.

4.2.3.2.4   Student performance data

As part of the second-phase, quantitative data, sampled graduating class student CGPAs were obtained from the AU Central Registrar and Programming Office. Student CGPAs were used to examine the relationship between SE indicators and students' achievement of learning outcomes.

4.2.3.3   Data analysis

The order in which the data were collected dictated the analysis and interpretation process. The qualitative data were collected and analyzed first, followed by the quantitative data (Creswell, 2012, 2014).

4.2.3.3.1   Analysis and Interpretations of qualitative data

In the first of phase of the analysis, applied thematic analysis techniques were used to examine the qualitative textual data obtained from interview transcripts and documents. The use of this technique offered the researcher the opportunity to use a combination of quantitative and interpretive techniques essential to addressing the research questions (Guest et al., 2014). It also offered the researcher the opportunity to systematically analyze the voluminous qualitative data and link them to broader conceptual or theoretical models (Braun & Clarke, 2012; Guest et al., 2014). This process of analysis involved reading and re-reading the textual data, looking for key words, trends, and themes or core ideas (Guest et al., 2014).

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          ┌─────────────────────────────┐
          │  Interpreting the Meaning of │
          │   Themes and Descriptions    │
          └─────────────────────────────┘
                        ▲
          ┌─────────────────────────────┐
          │   Interrelating Themes and   │
          │         Descriptions         │
          └─────────────────────────────┘
                  ▲           ▲
  ┌──────────┐  ┌────────┐  ┌──────────────┐
  │Validating│  │ Themes │  │ Descriptions │
  │   the    │  └────────┘  └──────────────┘
  │ Accuracy │        ▲           ▲
  │   of     │     ┌──────────────────┐
  │Information│    │  Coding the Data  │
  └──────────┘     └──────────────────┘
                        ▲
          ┌─────────────────────────────┐
          │  Finding Core Ideas in the Data │
          └─────────────────────────────┘
                        ▲
          ┌─────────────────────────────┐
          │ Organizing and Reading Through All Data │
          └─────────────────────────────┘
                        ▲
  ┌────────────────────────────────────────────────┐
  │              Inserting Raw Data                 │
  │ (Texts from Interview Transcripts and Relevant Documents) │
  └────────────────────────────────────────────────┘
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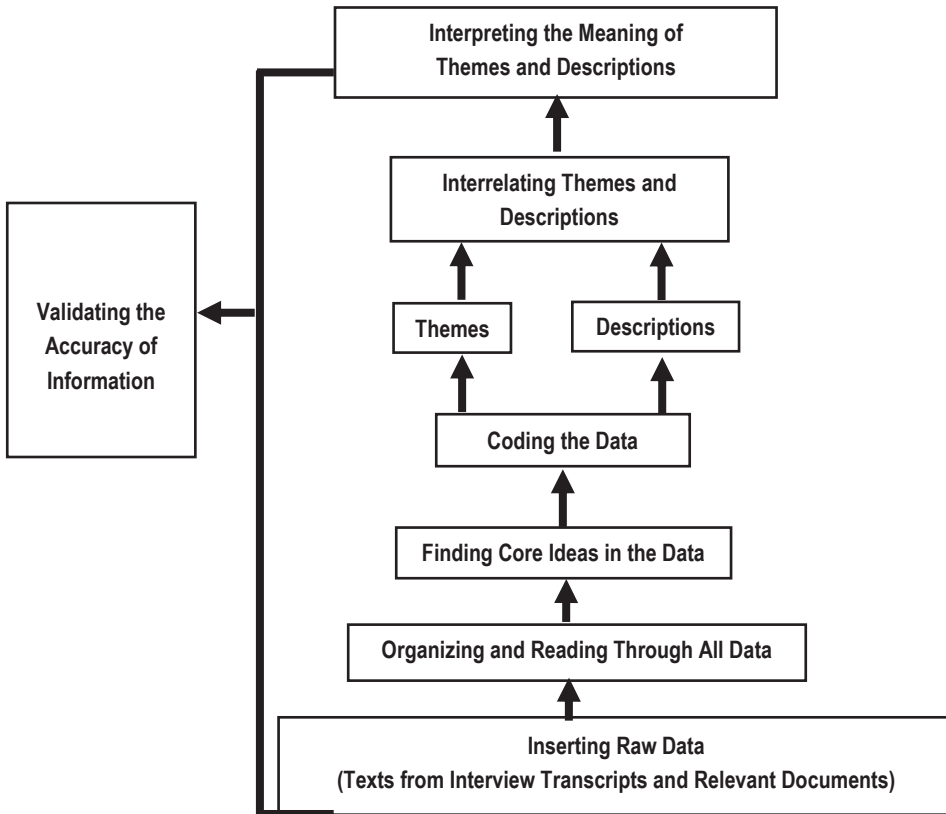
Figure 4.   Steps in qualitative data analysis, adapted from Creswell (2014, p. 197).

In addition, the analytical process involved generating or constructing themes based on the meaning created or patterned responses observed in the data set (Braun & Clarke, 2012). Though various alternative steps can be taken to conduct thematic analysis (Braun & Clarke, 2012; Guest et al., 2014), the six-step qualitative data analysis suggested by Creswell (2014) was used as a framework for the analytical process in the present study (Figure 4). To support the process, the ATLAS.ti v. 8 textual analysis software package was used. Initially, the transcribed interview data and the relevant HE and QA policies, strategies, and program curriculum documents were entered into the software. Next, the transcribed

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interview texts were repeatedly read to determine meaning for data segments, to link quotations to ideas emanating from the data, and to assign codes to significant quotations, supplemented with comments about the codes, the quotations, or both. After completing the coding processes for all the interview data and documents consulted, code categories, networks, and hyperlinks were created by grouping or merging similar codes, linking and networking quotations, and assigning a broader conceptual name to the grouped codes, networks, and hyperlinks. This process helped crystallize the concepts, dimensions, typologies, relationships, and factors associated with SE, on- and off-campus educational experiences, HE quality, QA practices, and student outcomes.

To make the grouped codes, networks, and hyperlinks more meaningful and address the research questions, the data sets were explored further using the analytic tools and operators in ATLAS.ti 8. As part of the exploration process, the number of words in each set of interview documents was counted to identify those that were frequently mentioned. The code document table was examined to count the frequency of codes across documents and document groups. In addition, code co-occurrence assessments were undertaken to identify overlapping codes, the frequency count of co-occurrences, and the strength of the relationships. The existence of redundant codes was also investigated to identify embedded quotations with the same codes or code groups. The results indicated that three codes had one redundant quotation. After examining the relative importance of the quotation, the decision was made to merge the quotes from the left and right sides. This allowed for the inheritance of the merged quotes whenever references to and from the quotation are made.

After that exploration, the combined data set was queried using a number of analytic operators in ATLAS.ti 8. This analysis promoted the identification of patterns and links within quotations, code categories, networks, and hyperlinks. Significant patterns and links were used to develop themes that were relevant to

addressing the research questions. The generated themes were organized to form a theoretical construct that was later used to provide identity or meaning to recurrent patterns, experiences, and practices in the qualitative data set. The meanings of the themes were interpreted so that they reflected QA conceptions, purposes, structures, processes, and practices, along with the role SE plays in transforming students' educational experiences and learning outcomes. The results of the analysis were used to locate and possibly adapt an appropriate SE survey instrument that would best reflect Ethiopian university contexts.

4.2.3.3.2   Analysis and interpretations of quantitative data

For the survey questionnaire and student CGPA data, *descriptive analysis* (frequency, percentage, mean, standard deviation) and *inferential analysis* (correlation, factor analysis, reliability analysis, independent sample t-test, analysis of variance [ANOVA], and regression analysis) were carried out. Using descriptive analysis, the sampled students and instructors' demographic characteristics, perceived engagement rates using various SE indicators, and comparisons of mean response trends among different respondent groups were analyzed.

The use of inferential statistics like Pearson's correlation permitted the assessment of the existing relationships between the different comparison variables and SE indicators, while principal component analysis (PCA) enabled the researcher to test, compare, and confirm or refine the factors (i.e., engagement scales) explicated from the analysis of the NSSE and FSSE survey data with the themes, concepts, or theoretical constructs developed using the qualitative applied thematic analysis. Using this approach meant that the results of the analysis provided SE conceptions, dimensions, and typologies from an Ethiopian HE perspective. Moreover, the use of linear and multiple regression analyses assisted in

determining the variables that significantly predicted SE and student CGPAs and enabled an examination of the effect of SE on student CGPAs.

To fit the data for both forms of regression analysis, the average score of all engagement scales was computed to create an SE variable. In addition, students' age and CGPA were grand mean centered, while dummy variables were created for two dichotomous (i.e., binary) variables: gender and parental education level. During the analysis, contradictory or unexpected results and extreme cases were identified for further exploration and explanation. The results from the quantitative data analysis were used in explaining, supporting, refining, or refuting the qualitative themes generated in the qualitative data analysis (Creswell, 2012).

4.2.3.4 Establishing Trustworthiness

Establishing the trustworthiness of qualitative research undertaking enhances the acceptability of the qualitative findings. It indicates the research process and the findings obtained from the qualitative analysis are accurate, consistent and exhaustive (Elo, Kääriäinen, Kanste, Pölkki, Utriainen, & Kyngäs, 2014; Lietz, Langer, & Fuman., 2007; Lincoln & Guba, 1985; Nowell, Norris, White & Moules, 2017; Shenton, 2004; Stahl & King, 2020). Ensuring trustworthiness entails demonstrating that the qualitative data analysis has been conducted in a precise manner through recording, systematizing, and disclosing the methods of analysis with enough detail to enable the reader to determine whether the process is credible (e.g., Nowell et.al., 2017).

To ensure the trustworthiness of the qualitative findings, four criteria are discussed i.e. *credibility, transferability, dependability and confirmability*. In this study, too, the researcher attempted to establish the trustworthiness of the first phase qualitative results through cautiously implementing procedures, methods and

techniques dominantly discussed in qualitative research. The following discussion addresses the steps taken to establish the trustworthiness of the findings obtained.

4.2.3.4.1 Credibility

Credibility refers to the extent the findings obtained are congruent with reality (e.g., Elo et al., 2014, 2014; Nowell et.al., 2017; Stahl & King, 2020). To ensure the credibility of the first phase qualitative findings, efforts were made to implement procedures recommended by various scholars in the field. According to these authors, credibility is established through the various processes of triangulation – a means of using several sources of information or procedure from the field to repeatedly establish identifiable patterns. Various forms of triangulation methods are discussed (e.g., data, investigator, theoretical, and environmental triangulation). In addition, member checking, peer debriefing and prolonged engagement of researcher is also considered vital in enhancing the credibility of qualitative findings.

To ensure the credibility of the first phase qualitative findings, various triangulation procedures were implemented. While collecting data, various sources of data were collected through semi-structured interviews, document reviews, questionnaires and student's academic performance as measured by CGPA. Efforts were also made to collect data from participants working in various positions assuming different roles and responsibilities (e.g., HE and QA policy makers, ITQADs, College level QA and department heads, instructors and students). In addition, the transcribed qualitative interviews and document review results were sent to informants to check the extent their explanations to the phenomena under investigation reflected their opinion and well captured in the report. Similarly, the frequent discussion on research procedures and preliminary findings with the lead

supervisor, co-supervisors and colleagues enabled the collection of essential feedback that contributed to enhancing the credibility of findings obtained.

4.2.3.4.2   Transferability

This form of trustworthiness is related with ensuring that patterns and descriptions from one context may be applicable to another. This can be achieved through transferring findings obtained from a qualitative enquiry from one context to another (Elo et al., 2014; Lietz, Langer, & Fuman., 2007; Lincoln & Guba, 1985; Nowell et.al., 2017; Shenton, 2004; Stahl & King, 2020). Various procedures and methods are implemented to ensure transferability of qualitative findings. This includes, providing thick descriptions on background data to establish the contexts of study, detailed descriptions of phenomenon in question to allow comparisons to be made and detail description on the methods and time frames for the collection of data.

In order to ensure findings from the first phase qualitative findings can be transferable to other context, sufficient contextual information about the Universities, research participants, the data collection and analysis processes were provided to enable readers to compare the results of this study with their own contexts.

4.2.3.4.3   Dependability

In qualitative research enquiry, dependability refers to the stability or consistency of the research processes used or the qualitative data collected over time and under different conditions (Elo et al., 2014; Lietz, Langer, & Fuman., 2007; Lincoln & Guba, 1985; Nowell et.al., 2017; Shenton, 2004; Stahl & King, 2020). Methods such as peer debriefing or peer scrutiny, stating researcher bias and assumptions, in-depth methodological descriptions and conceptualizations of process of the

study are considered useful in enhancing the dependability or trustworthiness of the qualitative findings.

This study attempted to achieve dependability through consistently providing detail descriptions on the methods of enquiry used, clearly reflecting and stating the researcher's belief and assumptions while conceptualizing the research process. In addition, the reflections and feedback obtained from supervisors, colleagues and study participants enabled the researcher to be consistent in reporting the findings and drawing conclusions.

4.2.3.4.4 Confirmability

Confirmability refers to objectivity, i.e., the potential for congruence between two or more independent people about the data's accuracy, relevance, or meaning. Though achieving real objective is difficult, to the very least, the researcher is expected to ensure that the findings are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher (Elo et al., 2014; Lietz, Langer, & Fuman., 2007; Lincoln & Guba, 1985; Nowell et.al., 2017; Shenton, 2004; Stahl & King, 2020). Suggested methods and procedures include data triangulation, acknowledging personal beliefs underpinning decisions made and methods adopted and providing detail descriptions on methods used.

To ensure conformability, triangulation of data, stating the researchers' belief and philosophical orientations and providing in-depth methodological descriptions were used to allow the integrity of research results to be scrutinized. In addition, the study attempted to support claims made regarding the generated themes, codes and indicators of SE with literature that emanated largely from quantitative oriented studies. Apart from this, the preliminary qualitative findings were

presented in a seminar and were reviewed by researchers who have ample experience in qualitative data analysis.

4.2.3.5   Ethical considerations

All required ethical standards in a mixed exploratory sequential research design were identified a priori, and every effort was exerted to ensure adherence to ethical standards. Accordingly, major research work was only undertaken after ethical clearances were obtained from Tampere University and MU. In addition, various measures were taken to avoid unethical practices. First, the selected universities were contacted by email and phone and visited in person, and data were only sought from those willing to participate in the study. To this end, a written and signed consent form indicating a respondent's willingness to take part in the interviews and to share relevant working documents was secured in each case. The purpose of the study was clearly explained to all potential participants, rapport was established with all respondents, and suitable times were arranged to carry out interview sessions at the convenience of the respondent. Furthermore, potential power issues were identified while collecting the data, and extensive care was taken not to minimize the importance of a sample because of its size. Above all, the anonymity of all respondents was protected in reporting the study results.

5 QUALITATIVE DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

This chapter presents the qualitative interview and document analysis results. The presentation is organized following the steps taken to thematically analyze the data collected from qualitative sources.

5.1 Descriptive accounts, code distributions, and relationships

After completing the coding process of the transcribed interview and document review data using ATLAS.ti 8, the researcher conducted an exploratory analysis. The purpose of this analysis was to identify the key words and phrases frequently mentioned by respondents, assess code co-occurrence frequencies and code–document relationships, and generate broader themes. This section describes the results of that exploration process.

5.1.1 Word list and word cloud

Counting words is very helpful in identifying the key words, phrases, and ideas discussed repeatedly by respondents. More specifically, developing a word cloud is instrumental in identifying the words that surround a key word and providing a clear understanding of the context in which such words are used (Guest et al., 2014). As Table 5 shows, the word *students* was frequently mentioned by

respondents, followed by *learning*, *experience*, *teaching*, *work*, *engage/engagement*, and *quality*. Therefore, the key word in this analysis was *students*, and the remaining words identified were observed to surround or provide context to that central term. This indicates that all the comments by respondents focused on addressing the main issue at hand: students' role, involvement, engagement, educational experiences, and learning outcomes. The major words and phrases mentioned in relation to *students* are closely associated with the conceptual denominators of SE discussed above.

Table 5.　　Frequency of words and phrases for all participants

No	Word	Frequency	Percentage
1	Students	764	16.57
2	Learning	451	9.78
3	Experience	357	7.74
4	Teaching	284	6.16
5	Work	284	6.16
6	Engage/engagement	265	5.75
7	Quality	254	5.51
8	Academic	237	5.14
9	Development	210	4.55
10	Policy	210	4.55
11	Teachers	209	4.53
12	Curriculum	177	3.84
13	University	172	3.73
14	Outcomes	144	3.12
15	Competencies	133	2.88
16	Community	125	2.71
17	Skills	114	2.47
18	Process	111	2.41
19	Resources	109	2.36

Source: Interview Data (June–August, 2020)

Comparative word counting was undertaken for different categories of respondents to see if there were variations among policymakers (MOSHE, HESC and HERQA), policy and curriculum implementers (CQA and department heads), and evaluators (TQADs); the results are presented in Table 6.

Table 6.   Word/phrase frequency comparisons

N o	Words	Policymakers (MoSHE, HESC, and HERQA)		Policy Evaluators (TQATDs)		Policy Implementers (CQA Heads)		Policy Implementers (Department Heads)	
		No	%	No	%	No	%	No	%
1	Students	203	12.90	148	12.90	191	13.38	222	15.79
2	University	168	10.67	81	7.06	44	3.08	52	3.70
3	Policy	104	6.61	35	3.05	43	3.01	50	3.55
4	Education	102	6.48	28	2.44	-	-	-	-
5	Learning	98	6.23	89	7.76	139	9.74	125	8.89
6	Experience	80	5.08	66	5.75	101	7.08	110	7.82
7	Work	63	4.00	64	5.58	79	5.54	78	5.55
8	Quality	61	3.87	69	6.01	86	6.02	40	2.84
9	Strategic	60	3.81	-	-	-	-	-	-
10	Engage/engagement	56	3.56	49	4.27	39	2.73	75	5.33
11	Development	52	3.30	38	3.31	55	3.85	65	4.62
12	Teaching	48	3.05	56	4.88	93	6.52	87	6.19
13	Resources	44	2.80	-	-	-	-	-	-
14	Academic	42	2.67	59	5.14	72	5.04	64	4.55
15	Curriculum	42	2.67	38	3.31	49	3.43	46	3.27
16	Competencies	42	2.67	-	-	34	2.38	33	2.35
17	Teachers	35	2.22	48	4.18	60	4.20	66	4.69
18	Graduate	35	2.22	-	-	35	2.45	34	2.42
19	Research	31	1.97	-	-	-	-	-	-
20	Knowledge	30	1.90	-	-	-	-	-	-
21	Outcomes	30	1.90	28	2.44	46	3.22	-	-
22	Skills	27	1.71	31	2.70	-	-	28	1.99
23	Industries	27	1.71	-	-	-	-	-	-
24	Social	27	1.71	37	3.23	40	2.80	37	2.63
25	Community	25	1.58	36	3.14	39	2.73	-	-
26	Opportunities	22	1.40	-	-	-	-	-	-
27	Audit	20	1.27	-	-	-	-	-	-
28	Assessment	-	-	25	2.18	43	3.01	30	2.13
29	Process	-	-	31	2.70	-	-	32	2.28
30	Services	-	-	26	2.27	-	-	-	-
31	QA	-	-	30	2.61	61	4.27	48	3.41
32	Guidelines	-	-	35	3.05	40	2.80	49	3.48
33	Implementation	-	-	-	-	38	2.66	-	-
34	Environment	-	-	-	-	-	-	35	2.49

Source: Interview Data (June-August, 2020).

-	Not observed for policymakers	-	Not observed for policy implementers
-	Not observed for university-level TQADs	-	Observed only for top-level policymakers
-	Not observed for CQA heads	-	Observed only for CQA heads
-	Not observed for department heads	-	Observed only for department heads
-	Only observed for university-level TQADs	-	Not observed for CQA heads and policymakers

As Table 6 shows, all groups commonly mentioned 38% of the words listed, though the frequency varied. For all groups, the key word most frequently cited was *students*, with words like *university, learning, experience*, *quality*, and *engagement* surrounding or providing context to the key word identified. This suggests that irrespective of differences in position and responsibilities, all comments made by respondents were focused on addressing the key issue at hand: students' role, involvement, engagement, educational experiences, and learning outcomes. Given the nature of the research questions, respondents' focus on SE and its role in promoting students' educational experiences and quality of learning and achievement was considered essential, as it enabled the researcher to effectively achieve the purpose of the study.

However, there were noticeable variations in the number of words and phrases cited by respondents. Different colors were used to illustrate the differences among groups of respondents with regard to the words and phrases they repeatedly cited when responding to interview questions. As Table 6 shows, words such as *strategy, resources, research, knowledge, industry, audit*, and *opportunities* were predominantly cited by HE and QA policy and strategy experts. On the other hand, university-level TQADs and CQA experts and department and school heads commonly used words like *assessment, quality assurance,* and *guidelines*. It is perhaps surprising to observe that department heads did not frequently mention words such as *outcomes* and *community*. In general, it is notable that top-level policy experts preferred broader terms and conceptual denominators, whereas middle- and lower-level leaders—those engaged in the day-to-day operation of the institution—mentioned specific, practice-oriented terms and conceptual denominators. Assessing the number of words that were frequently used by respondents enabled coding and generating themes that were used as building blocks for the SE concepts and typologies used later in the study.

5.1.2   Description of generated themes and distribution of codes

The transcripts of the interview sessions and documents consulted were read multiple times to identify relevant quotes that reflected respondents' conceptions, explanations, justifications, and arguments. These quotations were coded using various coding techniques in the ATLAS.ti 8 software.

By merging similar or related codes and deleting redundant ones, the initial 116 codes were reduced to 85 that represented the meanings, generated from respondents' reflections, that were relevant to the dissertation's research questions. After the researcher examined the meaning, essence, and relevance of each code, those that addressed similar issues, concepts, and ideas were grouped to form categories or themes. As to the distribution of codes within the generated themes, 27 of the 85 codes were grouped in more than two themes, making the total number of codes 116. The grouping of one code with more than two themes resulted from the perceived relationships between codes and themes. In addition, the relevance of the codes in making a theme meaningful and comprehensive led to additional groupings. Table 7 shows the generated themes, their descriptions, and the distributions of codes grouped across the various themes and categories.

Table 7.   Theme descriptions and code distribution

No	Code groups/themes	Description of themes	No of codes	% of codes
1	Participants' demographic characteristics	Study participants' background information	6	5.2
2	Academic engagement	The extent to which teaching, learning, and assessment policies, strategies, and practices emphasized enhancing SE in active construction of KSAs.	10	8.6
3	Community engagement	The extent to which HE and QA policies, strategies, and practices emphasized enhancing SE in community-based learning experiences.	4	3.4
4	Engagement in enriching educational experiences	The extent to which HE and QA policies, strategies, and practices emphasized enhancing SE in work-focused internship and service learning experiences.	3	2.6
5	Existing structural arrangement and support system to promote SE	The extent to which institutional arrangements, structures, processes, and systems support SE in classroom, on-campus, and off-campus learning experiences.	12	10.3
6	Improving SE and development of educational outcomes	Key activities that should be undertaken at the national, institutional, and individual levels to improve HE and QA policies, strategies, and guidelines and students' educational experiences and outcomes.	5	4.4
7	SE in HE education policy and strategy	Assumptions, expectations, and orientation of HE policies and strategies on the role of students in developing their academic, social, and work-related skills and competencies.	5	4.4
8	SE in undergraduate program curricula	Assumptions, expectations, and orientation of undergraduate curricula regarding the role of students in developing their academic, social, and work-related skills and competencies.	7	6
9	SE in national and institutional QA policies, strategies, and guidelines	Assumptions, expectations. and goals of national and university-, college-, and department-level QA policies, strategies, structures, and practices on the role of students in developing their academic, social, and work-related skills and competencies.	14	12
10	Student achievements and outcomes in national and institutional QA policies, strategies, and practices	The extent to which existing national and institutional QA policies, strategies, and practices actually emphasized transforming students' learning achievements, and student outcomes.	13	11.2
11	Policy-, strategy-, and curriculum-related factors affecting SE in HEIs	Policy-, strategy-, curriculum-, and structure-related factors affecting SE in on- and off-campus learning experiences, learning achievements, and outcomes.	11	9.5
12	Institutional factors affecting SE and improvement of outcomes	Institutional factors affecting SE in on- and off-campus learning experiences, learning achievements, and student outcomes.	13	11.2
13	Student-related factors affecting SE and improvement of outcomes	Student-related factors affecting SE in on- and off-campus learning experiences, learning achievements, and student outcomes.	4	3.4
14	Teacher-related factors affecting SE and improvement of outcomes	Teacher-related factors affecting SE in on- and off-campus learning experiences, learning achievements, and student outcomes.	4	3.4
15	SE during crises	Challenges posed by COVID-19, political instability, and student strikes on engagement, achievements, and outcomes of students.	2	1.7
16	Variations in SE in public and private HEIs	Contextual variations and factors affecting SE in public and private HEIs.	2	1.7
17	Rural-urban disparities in students' learning experiences and achievements	Observed differences between rural and urban settings in students' learning experiences and achievements	1	0.9
Total			**116**	**100 %**

Table 7 shows that the percentages of code distributions varied across the themes generated. The SE in national and institutional QA policies, strategies, and guidelines, student achievements and outcomes in national and institutional QA policies, strategies, and practices, and institutional factors affecting engagement and development of outcomes themes had the highest number of codes. Behind that group, the themes existing structural arrangements and support system to promote SE, policy-, strategy-, and curriculum-related factors affecting SE in HEIs, and academic engagement had a relatively high number of codes grouped.

The observed code distribution across themes indicates that the reflection of respondents focused more on the emphasis placed on improving students' on- and off-campus educational experiences, engagement, and achievement of outcomes under existing HE and QA policies, strategies, and structures. In addition, their discussions revolved around the factors affecting SE and the development of academic, social, and work-related outcomes. Compared to other forms of SE, students' academic engagement dominated the respondents' reflections, with less emphasis on teacher- and student-related factors. Finally, the inclusion of more codes in national and institutional QA policies, strategies, and practices reflect the greater importance respondents attached to the role of QA systems, processes, and practices in promoting SE and students' achievement of desired learning outcomes.

5.1.3   Code co-occurrence frequency

To gain insight into the generated codes (N = 85), the frequency of code co-occurrence and the strength of their relationships were examined using a code co-occurrence analysis table. Conducting this analysis was essential to systematically grouping the codes or variables that were interrelated and to generate the analytical themes that were used to develop SE concepts, dimensions, typologies, and

measures grounded in the data. A digest of the code co-occurrence table containing codes with a C-index greater than 0.10 is presented in Table 8.

Table 8.　　Code frequency and relationships (academic engagement)

Group Code		Codes	No	Coefficient
Academic engagement	Active construction of knowledge and experience **Gr = 22**	Teaching and learning environment **Gr = 44**	14	0.27
		Engaging assessment and feedback **Gr = 22**	4	0.10
		Engaging and experience-centered curriculum design and development **Gr = 39**	6	0.11
	Collaborative learning strategies **Gr = 30**	Quality of interaction between students and teachers **Gr = 23**	10	0.23
		Importance of SE in HEIs **Gr = 46**	8	0.12
		Importance placed on SE in HE policies and practices **Gr = 62**	8	0.10
	Engaging and experience-centered curriculum design and development **Gr = 39**	Teaching and learning environment **Gr = 44**	11	0.15
		Importance of SE in HEIs **Gr = 46**	8	0.10
	Importance placed on SE in policies and practices **Gr = 62**	Teaching and learning environment **Gr = 44**	13	0.14
		Importance of SE in HEIs **Gr = 46**	12	0.13

Gr　The density of co-occurrences between the variables

As Table 8 shows, the codes differed in their degrees of relationships with and frequency of co-occurrences. The C-index for all codes ranged from ~0.00 to 0.49, and all observed relationships were positive for the variables examined. The C-coefficient (ATLAS.ti 8 Windows-User Manual, 2020) reveals the existence of a positive relationship between codes, although the strength of those relationships varied from virtually no relationship to a moderate relationship. For instance, for the academic engagement theme, the code (in this case, the variable) active construction of knowledge and experience had a more positive relationship with the teaching and learning environment variable than with the engaging assessment and feedback and engaging and experience-centered curriculum design and development variables. Still, there was a positive relationship between all four variables, which indicates that respondents attempted to associate SE in the active construction of knowledge and experience with the way curricula were designed and with teaching, learning, assessment, and feedback provision mechanisms.

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Therefore, engaging students in active construction of knowledge and experience appears to be intertwined with the design and implementation of a challenging and stimulating teaching and learning environment, the quality of assessment and feedback provision procedures, and the development of engaging and experience-centered academic curricula in HEIs.

The collaborative learning strategies variable was positively related with the quality of interaction between students and teachers, the importance of SE in HEIs, and the importance placed on SE in HE policies and practices variables, although the relationship was greater between collaborative learning strategies and quality of interaction between students and teachers. It is notable that the design and implementation of a challenging and stimulating teaching and learning environment are related to the importance attached to SE in HE policies, strategies, and practices.

Respondents' reflections tended to reiterate the idea that strategies used to motivate students to engage in collaborative learning were closely tied with placing SE at the center of education policy and strategic agendas and making it the responsibility of all involved in the education system. In addition, respondents' reflections argued for the idea that SE in collaborative learning episodes is associated with the development and implementation of policies and strategies aimed at enhancing SE in classrooms and in on- and off-campus educational experiences. Hence, the successful implementation of collaborative learning strategies is related to the extent to which HEIs integrate SE into their mission statements and in their effort to improve the quality of student learning outcomes.

In Table 9, the correlation coefficients of variables under three themes or categories are presented. In the community engagement theme, the community and workplace engagement was positively correlated variable with the effective partnership of stakeholders variable, while the effective partnership of stakeholders

variable was positively related with the importance placed on SE in HE policies and practices variable.

Table 9.   Code frequency and relationships

Group Code	Codes		No	Coefficient
Community engagement	Community and workplace engagement **Gr = 35**	Effective partnership of stakeholders **Gr = 39**	17	0.30
	Importance placed on SE in policy and practice **Gr = 62**	Effective partnership of stakeholders **Gr = 39**	10	0.11
Structural arrangements and support systems to promote SE in HEIs	Emphasis on establishing a quality culture **Gr = 15**	Committed, enthusiastic, and motivated staff **Gr = 30**	5	0.13
		Ensuring accountability and responsibility **Gr = 39**	8	0.17
	The role of universities in improving student outcomes **Gr = 36**	Enabling learning resources **Gr = 36**	7	0.11
	Engagement in decision making **Gr = 23**	Ensuring accountability and responsibility **Gr = 39**	6	0.11
		Existing structural arrangements to promote SE **Gr = 35**	8	0.16
		Importance placed on SE in policy and practice **Gr = 62**	9	0.12
	Ensuring accountability and responsibility **Gr = 39**	Existing structural arrangements to promote SE **Gr = 35**	9	0.14
		Follow-up, monitoring, and evaluation procedures **Gr = 40**	18	0.30
		Importance of SE in HEIs **Gr = 46**	8	0.10
	Existing structural arrangements to promote SE **Gr = 35**	Follow-up, monitoring, and evaluation procedures **Gr = 40**	7	0.10
		Importance of SE in HEIs **Gr = 46**	8	0.11
	Importance placed on SE in policy and practice **Gr = 62**	Importance of SE in HEIs **Gr = 46**	12	0.13
Improving SE and development of educational outcomes	The role of universities in developing student outcomes **Gr = 36**	Effective partnership of stakeholders **Gr = 39**	7	0.10
		Governing body's role **Gr = 28**	6	0.10
	Recommendations for improving existing practices **Gr = 22**	Governing body's role **Gr = 28**	9	0.22

Gr	The density of co-occurrences between the variables

These relationships indicate that respondents' reflections suggested that integrating community and work-based learning opportunities and experiences is linked with the partnerships between government, industry, media, and the community. Placing SE at the center of the HE policy and strategic agenda is essential to promoting SE in the community. Hence, the importance of stakeholders' involvement and their role in promoting the quality of off-campus educational experiences and student outcomes is, for the respondents, of paramount importance in enhancing students' community and workplace engagement.

Under the structural arrangements and support systems that promote SE in HEIs theme, the emphasis on establishing a quality culture variable was positively correlated with the committed, enthusiastic, and motivated staff and ensuring accountability and responsibility variables. In this regard, respondents pinpointed the importance of having competent, formally qualified, enthusiastic, and responsible academic and leadership staff who can build a quality culture in HEIs. In addition, their reflections suggest that accountability and responsibility measures and procedures used at all levels are of paramount importance in changing the values and belief systems of teachers and students, which in turn is essential in establishing a quality culture. Therefore, the successful implementation of the existing QA structures, processes, and practices is associated with the value and belief system of teachers, leaders, and students on QA and its role in improving students' educational experiences and outcomes.

In addition, the role of universities in improving student outcomes variable was positively related with the enabling learning resources variable. This suggests that, for respondents, the role of universities in improving students' educational experiences and learning outcomes is associated with creating essential structures and infrastructures and enabling learning resources. Accordingly, the improvement

of students' academic, social, and work-related outcomes is related to the extent that universities create enabling learning resources and support infrastructures. The ensuring accountability and responsibility variable was positively correlated with the existing structural arrangements to promote SE, follow-up, monitoring, and evaluation procedures, and importance of SE in HEIs variables, although the relationship was greatest for the follow-up, monitoring, and evaluation procedures, variable. These observed relationships indicate that the successful implementation of accountability and responsibility measures and procedures at all levels is related with the structural arrangements, support systems, and follow-up, monitoring, and evaluation procedures in place. Compared to individual-level measures, institutional measures were considered to play a salient role in ensuring accountability and responsibility in HEIs.

The SE in decision making variable was correlated with the ensuring accountability and responsibility, existing structural arrangements to promote SE, and importance of SE in HEIs variables. This observed relationship emphasizes the idea that the degree of student participation in the decision-making process is associated with leadership and management systems and structures. The observed relationships also indicate the importance of engaging students in the decision-making process for the successful implementation of accountability and responsibility measures and procedures at all levels of the education system.

For the improving SE and development of educational outcomes theme, the role of universities in improving students' outcomes variable was correlated with the effective partnership of stakeholders and governing body role variables. From the respondents' point of view, the institutional capacity to establish responsive structures and infrastructures is related to the level of partnerships between government, industry, media, and the community. In addition, respondents' reflections indicated that improvement in students' academic, social, and work-related outcomes is related with the role and mandates of MOSHE, HESC, and

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HERQA. Therefore, improvement in SE, quality of learning, and student outcomes are linked with the roles played by governing bodies, stakeholders, and other key actors. This observed relationship further indicates that structural problems and overlapping roles influence the quality of students' educational experiences and outcomes.

Table 10. Code frequency and relationships

Group Code	Codes		No	Coefficient
SE in HE policies and strategies	Assumptions and expectations of policy and strategy on students' role in HEIs **Gr = 68**	Importance of student-centered policy **Gr = 62**	15	0.13
SE in undergraduate curricula	Active construction of knowledge and experience **Gr = 22**	Curriculum design and development **Gr = 39**	6	0.11
		Teaching and learning environment **Gr = 44**	14	0.27
	Curriculum design and development **Gr = 39**	Importance of relevant curriculum **Gr = 23**	7	0.13
		Teaching and learning environment **Gr = 44**	11	0.15
	Lack of emphasis on local and indigenous KSA **Gr = 7**	Limitations of existing undergraduate curricula **Gr = 14**	3	0.17
SE in national and institutional QA policies, strategies, and guidelines	Core missions and goals of universities **Gr = 28**	The role of universities in improving student outcomes **Gr = 36**	9	0.16
	Emphasis in QA policies and practices on the improvement of students' academic, social, and employment skills **Gr = 79**	Existing structural arrangements to promote SE **Gr = 35**	12	0.12
		External institutional audit and its role **Gr = 41**	19	0.19
		Internal institutional QA policies and guidelines **Gr = 76**	27	0.21
	Emphasis on establishing a quality culture **Gr = 15**	Governing body role **Gr = 28**	4	0.10
	Structural arrangements to promote SE **Gr = 35**	Internal QA policies and guidelines **Gr = 76**	11	0.11
	External institutional audit and its role **Gr = 41**	Internal QA policies and guidelines **Gr = 76**	20	0.21
	Governing body role **Gr = 28**	The role of universities in improving student outcomes **Gr = 36**	6	0.10

Gr The density of co-occurrences between the variables

Table 10 presents the co-occurrences and relationships among variables categorized under three themes. Under the SE in existing HE policy and strategy theme, the assumptions and expectations of policy and strategy on students' role in HEIs variable was positively related with the importance of student-centered policy variable. Thus, respondents linked the expectations and assumptions outlined regarding the role of students in HEIs with the importance universities attach to SE in their mission and their efforts to improve the quality of students' learning.

Similarly, under the SE in undergraduate curricula theme, the active construction of knowledge and experience variable was positively correlated with the teaching and learning environment and engaging and experience-centered curriculum design and development variables. This observed relationship strengthens respondents' claims that SE in the active construction of knowledge and experience is associated with the way curricula are designed and the teaching and learning environment created for students. In addition, the engaging and experience-centered curriculum design and development variable was positively correlated with the importance of relevant curriculum and teaching and learning environment variables. This relationship indicates that the emphasis placed on the design and implementation of a challenging and stimulating teaching and learning environment is associated with the importance assigned to the development of relevant and engaging HE curricula. Respondents also link the role of devising relevant curricula to addressing national and institutional needs, interests, and priorities. Meanwhile, the lack of emphasis on local and indigenous KSAs variable was positively correlated with the limitations of existing undergraduate curricula variable. For the respondents, the failure to incorporate local and Indigenous knowledge, skills, values, and attitudes in existing undergraduate curricula was considered a limitation of those curricula. This is related to the lack of relevance of undergraduate curricula to existing market structures and the day-to-day lived experience of students (MOE, 2018; MOSHE, 2020).

A number of variables were clustered under the SE in national and institutional QA policies, strategies, and guidelines theme. As Table 10 shows, the core missions and goals of universities variable was positively related with the role of universities in improving student outcomes variable. This relationship suggests that the improvement of students' academic, social, and work-related outcomes is associated with the core missions and goals of both public and private HEIs and with the role they play in creating essential structures and infrastructures. In addition, the emphasis given in QA policies and practices to the development of students' academic, social and employment skills variable was correlated with the existing structural arrangements to promote SE, internal QA policies and guidelines, and external institutional audit and its role variables. The correlation coefficient was higher for the internal QA policies and guidelines variable. The respondents' reflections make clear the emphasis placed on the improvement of students' outcomes in internal and external QA policies, strategies, and practices is associated with the structural arrangement and support systems in place. Accordingly, the key tasks carried out by HERQA and HEIs to enhance the quality of education and student outcomes needs to be intertwined with improving SE levels and the attainment of academic, social, and employment skills. It is also notable that there was a positive relationship between the external institutional audit process and internal institutional QA policies and guidelines variables. This indicates that what institutions do to assure and enhance the quality of education is associated with the external audit process. Accordingly, the focus areas of the external audit process appear to have a bearing on internal QA processes.

Table 11 presents the code co-occurrence frequency and correlation coefficients for variables under the Student achievement and graduate outcomes theme. It shows that the emphasis placed in QA policies and practices on the improvement of students' academic, social, and employment skills variable was

positively correlated with the variables emphasis of HE policy and strategy on student outcomes and the role of QA policies and practices in promoting SE and student outcomes variables. For respondents, the emphasis placed on ensuring the relevance and quality of existing academic programs and the development of higher-order learning outcomes is associated with improving students' academic, social, and work-related competencies and outcomes.

Table 11.   Code frequency and relationships

Group Code		Codes	No	Coefficient
Student achievements and outcomes	Emphasis in QA policies and practices on the improvement of students' academic, social, and employment skills **Gr = 79**	Emphasis of HE policy and strategy on student outcomes **Gr = 28**	15	0.16
		The role of QA policies and practices in promoting SE and outcomes **Gr = 24**	10	0.11
	Emphasis of HE policy and strategy on student outcomes **Gr = 28**	Students' learning, achievements, and outcomes **Gr = 25**	6	0.13
		The relationship of student performance measures **Gr = 14**	4	0.11
		The role of QA policies and practices in promoting SE and outcomes **Gr = 24**	6	0.13
	Existing employment opportunities **Gr = 24**	Students' outcome measures **Gr = 34**	6	0.12
	Students' outcome measures **Gr = 34**	Students' learning achievements and outcomes **Gr = 25**	8	0.16
		The relationship of student performance measures **Gr = 14**	8	0.20
	Impact of political instability on SE in HEIs **Gr = 18**	Lack of addressing SE in HE policy and practice **Gr = 29**	8	0.21
	The relationship of student performance measures **Gr = 14**	The role of QA policies and practices in promoting SE and outcome **Gr = 24**	5	0.15
	Students' learning achievements and outcomes **Gr = 25**	The relationship of student performance measures **Gr = 14**	11	0.39
		The role of QA policies and practices in promoting SE and outcomes **Gr = 24**	10	0.26

Gr   The density of co-occurrences between the variables

There was also a positive relationship between the emphasis of HE policy and strategy on student outcomes variable and the students' learning achievements and

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outcomes and relationship of student performance measures variables. This observed relationship shows the emphasis placed in HE and QA policy and strategic frameworks on the development of higher-order learning outcomes, which is related to transforming students' on- and off-campus educational experiences. Efforts to enhance the relevance and quality of academic programs is related to improving students' performance in department-oriented and national assessment, examination, and evaluation procedures.

Another relationship to note in Table 11 is between the existing employment opportunities and students' outcome measures variables. For the respondents, the extent to which graduates have employment opportunities or are affected by limited or unbalanced job prospects is associated with the extent to which institutions organize engaging and practice-oriented teaching and internship experiences. Furthermore, the extent to which institutions conduct tracer studies to measure graduate outcomes is interrelated with the efforts they make to transform the quality of students' educational experiences, learning achievements, and graduate outcomes. The impact of political instability on SE variable was positively correlated with the lack of addressing SE in HE policy and practice variable. This relationship indicates that politicizing education and QA interventions influences a university's capacity, staff commitment, student outputs, and outcomes. Moreover, respondents associated the political instability and unrest observed in universities with the failure to devise policies and strategies that emphasize the improvement of students' academic, social, and work-related outcomes.

In Table 12, the relationships of variables under the institutional factors affecting SE and outcomes theme are reported. The factors affecting the implementation of modular curriculum and QA tools variable was positively related with the instructors' lower motivation, commitment and academic corruption, lack of properly implementing policy and strategic intentions, and

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limitations of internal QA policies and practices variables. The correlation coefficient was higher for the variable lack of properly implementing policy and strategic intentions. The respondents' reflections show that the implementation of modular curricula and QA tools is related with the proper implementation of HE and QA policy and strategic intentions, instructors' motivation, commitment, and professional integrity, and the availability of the required educational resources.

Table 12. Code frequency and relationships

Group Code		Codes	No	Coefficient
Institutional factors affecting SE and student outcomes	Factors affecting the implementation of modular curricula and QA tools **Gr = 65**	Instructors' lower motivation, commitment, and academic corruption **Gr = 52**	21	0.22
		Lack of properly implementing policy and strategic intentions **Gr = 91**	51	0.49
		Limitations of internal QA policies and practices **Gr = 52**	16	0.16
	Follow-up, monitoring, and evaluation procedures **Gr = 40**	Instructors' lower motivation, commitment, and academic corruption **Gr = 52**	15	0.15
		Limitations of external audit process **Gr = 28**	8	0.13
		Limitations of internal QA policies and practices **Gr = 52**	8	0.10
		Top-down approach to QA policies and practices **Gr = 17**	5	0.10
	Institutional autonomy and academic freedom **Gr = 14**	Top-down approach to QA policies and practices **Gr = 17**	9	0.41
	Instructors' lower motivation, commitment, and academic corruption **Gr = 52**	Lack of properly implementing policy and strategic intentions **Gr = 91**	33	0.30
	Lack of properly implementing policy and strategic intentions **Gr = 91**	Limitations of internal QA policies and practices **Gr = 52**	24	0.20
	Limitations of external audit process **Gr = 28**	Limitations of internal QA policies and practices **Gr = 52**	21	0.36
		Top-down approach to QA policies and practices **Gr = 17**	5	0.13

Gr The density of co-occurrences between the variables

The respondents' remarks also suggest that the internal QA practice emphasizes the day-to-day routine tasks rather than focusing on achieving strategic

objectives and goals. The findings from numerous policy and strategic documents (e.g., MOE, 2018; MOE, 2015a; MOSHE, 2020) corroborate this association. In these documents, a lack of properly implementing existing education and QA policies, strategies and guidelines, low instructor motivation and commitment and a lack of professional integrity, large class size, lower incentives and lack of adequate educational resources and facilities were all cited as important institutional factors affecting the implementation of HE policy and strategic intentions and curricular reforms.

The follow-up, monitoring and evaluation procedures variable was correlated with the instructors' lower motivation, commitment and academic corruption, limitations of external audit process, limitations of internal QA policies and practices, and top-down approach to QA policies and practices variables. Looking at these relationships shows that the follow-up, monitoring, and evaluation procedures used at the national, institutional, university, college and department levels were influenced by the limitations of existing external audit process and internal QA practices. In addition, instructor- and working environment-related factors appear to have affected the implementation of a stimulating and challenging teaching and learning process. The top-down approach used to initiate change and the university's limited role in making decisions pertaining to QA and resource allocation was instrumental to the observed lack of properly implementing existing HE and QA policies, strategies, and reform initiatives. The greater positive correlation between the top-down approach to QA policies and practices and institutional autonomy and academic freedom variables and the limitations of external audit process and limitations of internal QA policies and practices variables reinforce this reflection.

Table 13 presents the correlation coefficients of variables under the policy-, strategy-, and curriculum-related factors affecting SE in HEIs theme. As the table

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shows, the impact of political instability on SE variable was positively correlated with the policy, strategy, curriculum, and institutional factors variable.

Table 13. Code frequency and relationships

Group Code		Codes	No	Coefficient
Policy-, strategy-, and curriculum-related factors affecting SE in HEIs	impact of political instability on SE **Gr = 18**	Lack of addressing SE in HE policy and practice **Gr = 29**	8	0.21
		Policy, strategy, curricular, and institutional factors **Gr = 23**	4	0.11
	Lack of addressing SE in HE policy and practice **Gr = 29**	Lack of properly implementing policy and strategic intentions **Gr = 91**	14	0.13
		Orientation of existing policy on public universities **Gr = 12**	4	0.11
	Lack of developing relevant QA policies, strategies, and guidelines **Gr = 20**	Lack of emphasis on local and Indigenous KSAs **Gr = 7**	6	0.29
		Limitations of existing undergraduate curricula **Gr = 14**	6	0.21
	Lack of effective internship opportunities **Gr = 22**	Lack of properly implementing policy and strategic intentions **Gr = 91**	10	0.10
		Limitations of education policies and strategies **Gr = 45**	6	0.10
	Lack of emphasis on local and Indigenous KSAs **Gr = 7**	Limitations of existing undergraduate curricula **Gr = 14**	3	0.17
	Lack of properly implementing policy and strategic intentions **Gr = 91**	Limitations of education policy and strategy **Gr = 45**	19	0.16
		Policy, strategy, curricular, and institutional factors **Gr = 23**	16	0.16
	Limitations of education policy and strategy **Gr = 45**	Orientation of existing policy on public universities **Gr = 12**	5	0.10
		Policy, strategy, curricular, and institutional factors **Gr = 23**	8	0.13

Gr The density of co-occurrences between the variables

Table 11 shows that impact of political instability on SE was positively correlated with the lack of addressing SE in HE policies and practices variable. From the respondents' viewpoints, politicizing education and QA interventions appears to influence the improvement of students' academic, social, and work-related competencies. In addition, the political instability, insecurity, and student continued strikes observed in various parts of the country are related to institutional

inefficiency, limited staff commitment, and deteriorating student enthusiasm for learning and their achievement of expected outcomes.

The lack of developing relevant QA policies, strategies, and guidelines variable was positively correlated with the "lack of emphasis to local and Indigenous KSAs and limitations of undergraduate curricular variables. The respondents' reflections indicate that the observed limitation of undergraduate academic programs in preparing graduates for the market and in incorporating the local and Indigenous KSAs results from a failure to develop HE and QA policies, strategies, and guidelines that consider the actual social, economic, political, and cultural contexts of the country.

On the other hand, the lack of effective internship opportunities variable was associated with the lack of properly implementing policy and strategic intentions and limitations of education policy and strategy variables. These relationships show that the absence of clear policies, strategies, and guidelines that specifically address the role of the government, industry, and universities in promoting university–industry linkages and internship practices influences the rate of SE in off-campus internships and a range of enriching educational experiences.

Apart from this, the limitations of education policy and strategy variable was positively correlated with the orientation of existing policy on public universities and "policy, strategy, curricular, and institutional factors variables, which shows that public and private HEIs do not go through similar quality audit and quality control processes, with more scrutiny and tighter control procedures imposed on private HEIs. HE policy and strategic provisions place more emphasis on the leadership, management, and support of public universities than ones. This difference appears to be associated with the variations in the entry behavior of enrolled students, the quality of educational experiences, and the improvement of student outcomes.

Table 14.   Code frequency and relationships

Group Code	Codes		No	Coefficient
Teacher-related factors affecting engagement and development of outcomes	Factors affecting the instructional process **Gr = 33**	Instructors' lower motivation, commitment, and academic corruption **Gr = 52**	14	0.20
		Teacher- and student-related problems affecting assessment **Gr = 28**	15	0.33
		Teachers' perception of students **Gr = 6**	5	0.15
	Instructors' lower motivation, commitment, and academic corruption **Gr = 52**	Teacher- and student-related problems affecting assessment **Gr = 28**	19	0.31
	Teacher- and student-related problems affecting assessment **Gr = 28**	Teachers' perception of students **Gr = 6**	4	0.13
Student-related factors affecting engagement and development of outcomes	Student factors affecting engagement and achievement **Gr = 42**	SE in non-academic activities **Gr = 8**	6	0.14
		Students' goals, aspirations, and backgrounds **Gr = 30**	18	0.33
		Teacher- and student-related problems affecting assessment **Gr = 28**	10	0.17
	SE in non-academic activities **Gr = 8**	Students' goals, aspirations, and backgrounds **Gr = 30**	5	0.15

Gr The density of co-occurrences between the variables

Table 14 presents the relationship of variables categorized under the teacher and student related factors affecting SE and improvement in of outcomes theme. In teacher-related factors, the factors affecting the instructional process variable was positively correlated with the instructors' lower motivation, commitment, and academic corruption, teacher-and student-related problems affecting assessment, and teachers' perception of their students' variables. For respondents, students' limited roles, poor engagement, and lower achievement of expected outcomes are associated with the quality of teachers' instructional processes. In addition, the way teachers perceive their students is related to the selection of teaching and assessment methods, which in turn is connected to students' role in the instructional process. The prevalence of teacher-centered pedagogy, a lack of practice-oriented teaching, and teachers' and students' tendency to participate in

unethical practices, favoritism, and nepotism all influence students' level of engagement in the instructional process and thus their learning achievements. Moreover, the poor working environment, instructors' lack of professional integrity, teaching competence, and lower incentives affect the implementation of a stimulating and challenging teaching and learning process.

On the other hand, the instructors' lower motivation, commitment, and academic corruption variable was positively correlated with the teacher- and student-related problems affecting assessment variable. This relationship suggests that teachers' and students' tendency to participate in unethical assessment and evaluation practices negatively influences students' performance and the successful implementation of CA policies and strategies in HEIs. The prevalence of such malpractice is related to the poor working environment, lower incentives, and instructors limited professional pedagogical competencies.

Considering student-related factors affecting engagement and improvement of outcomes, the "student factors affecting their engagement and achievement was variable positively correlated with the SE in non-academic activities, students' goals, aspirations, and backgrounds, and teacher- and student-related problems affecting assessment variables. There was also a positive relationship between the SE in non-academic activities and students' goals, aspirations, and backgrounds variable. This relationship suggests that students' lack of motivation, interest, and commitment to invest time and effort in their studies is related to a lack of implementing student-centered teaching and learning process. Students' preoccupation with activities that have little to do with improving their academic, social, and work-related competencies also appears to influence their engagement and learning outcomes. Furthermore, students' background challenges, such as poor basic communication skills and lower performance in the General Education Leaving Certificate Examinations or University Entrance Examination, are

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associated with lower achievement of required competencies and graduate outcomes. The respondent reflections indicate that existing student enrollment policies and strategies do not consider students' goals, aspirations, enrollment preferences, and previous educational backgrounds. A failure to properly consider students' entry behavior thus is a key factor affecting the implementation of student-centered teaching and learning processes and the improvement of student outcomes.

5.1.4   Code–document relationships

In order to examine the relationship between code groups and the various groups of respondents, a code–document table was analyzed. This analysis helped explore the existing differences between and/or within respondent groups as to certain concepts of interest. Since the documents were of unequal length and the number of participants in each comparison group varied, the count was normalized to make the distribution of codes between and within groups meaningful (ATLAS.ti 8 Windows-User Manual, 2020). Tables 15–17 show the normalized counts of the cross-tabulation results.

As Table 15 shows, the students' academic engagement and students' achievement and outcomes codes were more frequently mentioned and thus considered important by all respondent groups. In addition, the community engagement code was more frequently mentioned than the engagement in enriching educational experiences code. This allows for the inference that there were within-group variations that yielded differences in the distribution of codes. However, respondents in various the categories did not differ in the type of codes that they mentioned most often. This result reveals the importance respondents attached to enhancing SE in active construction of KSAs and placing community-

based learning experiences and enhancing students' learning outcomes at the center of national and institutional HE and QA policies and practices.

Table 15.   Within-group comparisons

Group of respondents	CQA Heads Gr = 194 GS = 5		HESC, HERQA, and MOSHE Gr = 187 GS = 3		TQADs Gr = 132 GS = 3		School and Department Heads Gr = 176 GS = 5		Totals
Code groups	Ab sol	Colu mn	Ab sol	Colu mn	Ab sol	Colu mn	Ab sol	Colu mn	Absol
Participant background Gr = 96 GS = 6	30	14.2%	21	9.9%	24	11.2%	33	15.7%	108
Academic engagement Gr = 233 GS = 10	64	30.2%	64	30.2%	70	32.9%	68	31.9%	266
Community engagement Gr = 129 GS = 4	34	16.1%	42	19.8%	38	18%	33	15.7%	147
Engagement in enriching educational experiences Gr = 74 GS = 3	17	8%	19	8.8%	22	10.6%	27	12.6%	85
Students' achievement and outcomes Gr = 214 GS = 13	67	31.6%	66	31.3%	58	27.3%	51	24.1%	242
Totals	212	100 %	212	100%	212	100%	212	100%	848
GR **GS**	The number of quotations in grouped documents or grouped codes. The number of documents or codes in grouped documents or codes.								

The cross tabulation for across-group comparisons was examined[4] for similar code distribution. The results indicated that compared to policy experts and CQA heads, university-level TQADs and department heads frequently mentioned the students' academic engagement code, while the students' achievement and outcomes code was more frequently mentioned and thus considered important by CQA heads and policy experts. While all respondents mentioned the community engagement code with some frequency, department heads mentioned the engagement in enriching educational experiences code more often. From this result, it can be deduced that there were across-group variations in the number of

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[4] The across-group comparison tables are omitted, as their inclusion would be redundant.

times a certain code was mentioned or considered more important. Overall, the results indicate that irrespective of differences in respondents' characteristics, enhancing SE in the active construction of KSAs, providing community-based learning experiences, improving students' achievements and outcomes were valued, though the magnitude of that importance varied.

Similarly, Table 16 shows within-group differences in the distribution of codes. College-level QA heads place greater importance on the existing structural arrangement and support system to promote SE and SE in national and institutional QA policies, strategies, and guidelines codes. A similar distribution of codes can be observed for public and private university TQADs and department heads. On the other hand, HE policy experts often mention the SE in national and institutional QA policies, strategies, and guidelines, SE in existing HE education policy and strategy, and structural arrangements and support systems to promote SE codes. This result suggests that the development of students' academic, social. and work-related competencies relies heavily on HE and QA policies and strategies and the institutional arrangements, structures, processes, and systems that are designed to promote and support SE in classroom, on-campus, and off-campus learning experiences.

Table 16.   Within-group comparisons

Group of respondents	CQA Heads Gr = 194 GS = 5		HESC, HERQA, and MOSHE Gr = 187 GS = 3		TQADs Gr=132 GS=3		School and Department Heads Gr=176 GS=5		Totals
Code groups	Ab sol	Colu mn	Ab sol	Colu mn	Ab sol	Colu mn	Ab sol	Colu mn	Absol
Participant background Gr = 96 GS = 6	30	11.2%	23	8.6%	21	7.9%	33	12.5%	107
Structural arrangements and support systems to promote SE Gr = 244 GS = 12	74	27.7%	56	21.1%	70	26.3%	73	27.4%	274
Improving SE and student outcomes Gr = 100 GS = 5	22	8.2%	26	9.6%	40	14.9%	27	9.9%	114
SE in existing HE policies and strategies Gr = 152 GS = 5	34	12.7%	63	23.4%	41	15.4%	38	14.1%	175
SE in undergraduate program curricula Gr = 111 GS = 7	34	12.7%	29	11%	33	12.3%	29	10.8%	125
SE in national and institutional QA policies, strategies, and guidelines Gr = 242 GS = 14	73	27.3%	70	26.3%	62	23.3%	68	25.3%	273
Totals	267	100%	267	100%	267	100%	267	100%	1068
GR	The number of quotations in grouped documents or grouped codes.								
GS	The number of documents or codes in grouped documents or codes.								

When the cross tabulation for across-group comparisons was made, the results indicated that—other than policy experts—CQA heads, university TQADs, and department heads place greater importance on the existing structural arrangement and support system to promote SE code. Compared to other groups of respondents, university TQADs frequently mention the Improving SE and outcomes code. Similarly, policy experts consider the code SE in existing HE policies and strategies to be important. Apart from this, the code SE in existing undergraduate curriculum was moderately mentioned by CQA heads and University TQADs. However, compared to other codes, all groups of respondents

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frequently mentioned and thus considered important the SE in national and institutional QA policies, strategies, and guidelines code. This result indicates across-group differences in the distribution of codes. However, irrespective of differences in respondent backgrounds, SE in national and institutional QA policies, strategies, and guidelines was considered more important than student involvement in the design and development of undergraduate program curricula and broader HE policy and strategic frameworks. This result strengthens the perceived importance attached to the role of institutional arrangements, structures, processes, and systems in promoting SE in classroom, on-campus, and off-campus learning experiences. Again, this was considered essential in supporting the development of students' academic, social, and work-related skills.

Table 17 also presents the distribution of a group of codes among various groups of respondents. CQA and department heads most often mentioned the institutional factors affecting engagement and improvement of outcomes and policy-, strategy-, and curriculum-related factors affecting SE in HEIs codes. Though small in number, these respondents frequently mentioned the teacher- and student-related factors affecting engagement and development of outcomes codes. On the other hand, policy experts and university TQADs emphasized the institutional factors affecting engagement and development of outcomes and policy- strategy-, and curriculum-related factors affecting SE in HEIs codes.

The distribution of these codes varied for respondents within the same group, indicating that, irrespective of group differences, codes emphasizing institutional-, policy-, and curriculum-related factors and students' educational experiences and achievements were frequently mentioned by all respondents. However, CQA heads and department heads added codes that emphasized teacher- and student-related factors. Therefore, the development of students' academic, social, and work-related skills and competencies appeared to be more powerfully affected more by

institutional, policy, strategy, and curricular factors than teacher- or student-related problems.

Table 17.   Within-group comparisons

Group of respondents	CQA Heads Gr=194 GS=5		HESC, HERQA and MOSHE Gr=187 GS=3		TQADs Gr=132 GS=3		School/Dep artment Heads Gr=176 GS=5		Totals
Code groups	Ab sol	Colu mn	Ab sol	Colu mn	Ab sol	Colu mn	Ab sol	Colu mn	Absol
Participant background Gr=96 GS=6	30	14.3%	26	12.2%	32	15.4%	30	14.2%	118
Institutional factors affecting engagement and improvement of outcomes Gr=217 GS=13	63	30%	67	31.8%	67	31.6%	70	33.2%	267
Policy-, strategy-, and curriculum-related factors affecting SE in HEIs Gr=181 GS=11	56	26.7%	67	31.8%	49	23.1%	51	24.2%	223
Rural-urban disparities in SE and student achievement Gr=4 GS=1	1	0.5%	3	1.4%	0	0.00%	1	0.5%	5
SE during crises Gr=23 GS=2	7	3.3%	11	5.4%	11	5.1%	2	0.9%	31
Student-related factors affecting engagement and improvement of outcomes Gr=73 GS=4	24	11.4%	14	6.8%	20	9.4%	28	13.3%	86
Teacher-related factors affecting engagement and improvement of outcomes Gr=77 GS=4	28	13.3%	9	4.1%	29	13.7%	27	12.8%	93
Variations in SE between public and private HEIs Gr=15 GS=2	1	0.5%	14	6.8%	4	1.7%	2	0.9%	21
Totals	211	100%	211	100%	211	100%	211	100%	844
GR GS	The number of quotations in grouped documents or grouped codes. The number of documents or codes in grouped documents or codes.								

The across-group comparisons indicate variations in the distribution of codes. For instance, though small in magnitude, all groups except policymakers repeatedly

mentioned the teacher- and student-related factors affecting engagement and development of outcomes codes. Compared to other groups of respondents, policy experts and university TQADs cited the SE during crises and variations in SE between public and private HEIs codes. However, there were occasions on which the distribution of codes varied slightly across groups of respondents. For instance, all groups of respondents frequently mentioned "institutional factors affecting engagement and improvement of outcomes and policy-, strategy-, and curriculum-related factors affecting SE in HEIs codes, indicating that respondents considered these issues to most significantly impede SE in academic, social, and work-related learning environments. In addition, compared to teacher- and student-related factors, institutional-, policy-, and curriculum-related factors were considered influential in affecting SE and the improvement of educational outcomes. Moreover, compared to lower-level leaders, top-level policymakers were more concerned about variations in students' learning experiences, achievements, and outcomes between private and public HEIs. The same holds true for the impact of political instability and COVID-19 on SE in on- and off-campus educational experiences and the achievement of expected outcomes. Therefore, policy implementers consider institutional, policy, strategy, and curricular factors to be the most crucial in affecting the development of students' academic, social, and work-related skills and competencies.

5.1.5 Summary of findings

The exploratory analysis of the qualitative interviews and document data revealed a number of important findings. For instance, the initial word count and word cloud analysis results indicated that the various groups of respondents most commonly discussed words and phrases associated with students' role, involvement, engagement, educational experiences, and learning outcomes. The assessment of

the number of words frequently cited by respondents and the careful synthesis of respondents' quotations enabled the generation of codes that captured the meanings, explanations, and arguments that respondents made with regard to existing HE and QA policies, strategies, systems, and practices. In addition, the examination of the nature and meanings of and relationships among the generated codes enabled the creation of code groups that were instrumental in constructing broader themes. These inductively generated themes represent the dominant conceptions, perceptions, and assumptions regarding existing HE and QA policies, strategies, structures, processes, and practices. They also reflect the conceptions of and perceptions and assumptions about students' roles, educational experiences, and expected outcomes in undergraduate curricular, teaching, learning, and assessment processes and practices.

The code-co-occurrence and code–document relationship analysis indicated that there were variations among respondents in rating the relative importance of a given code to a particular theme. The observed degree of relationships among the codes indicated the extent to which each is associated with the various themes generated. This analysis was essential to identify the variables and measures that are most important in explaining SE concepts, dimensions, and typologies. Besides, it enabled identifying factors related to policy, strategy, structure, curriculum, teaching, learning, and assessment that respondents considered important in influencing SE in classroom, on-campus, and off-campus educational experiences and the development of students' academic, social, and work-related outcomes.

The results obtained from the exploratory analysis were instrumental in enabling the researcher to achieve the following aims:

i)   Determine the conceptual organizers of SE in Ethiopian HEIs.

ii) Explicate three broader SE types (academic, community, enriching educational experiences).

iii) Determine the perceived relationships between SE and student outcomes as measured by academic, social, and work-related skills.

iv) Determine the nature of educational experiences and student outcomes emphasized in HE and QA policies, strategies, structures, processes, and practices.

v) Identify broader policy, strategy, curriculum, and QA factors that affect SE and the quality of student learning and achievement.

vi) Detect instructor- and student-related factors affecting the improvement of on- and off-campus educational experiences and student outcomes.

These initial findings were crucial in providing direction for the data collection, analysis, and interpretation processes in the second, quantitative phase. In addition, they show the significance of applied thematic analysis techniques in providing context-based SE concepts, dimensions, and typologies grounded in the analysis of existing perceptions, conceptions, and assumptions. The findings were also linked with broader conceptual or theoretical models that were then used to locate and adapt an appropriate SE survey instrument.

5.2   In-depth analysis and querying the broader themes

Based on the three research questions, various queries were made in the data using relevant set operators in ATLAS.ti 8. The results of that analysis were organized based on the dominant themes generated and the subthemes that were developed to answer the aims of the study. To supplement the reflections, explanations, and arguments made, quotations from interviews and the HE and QA policy, strategy,

and regulatory frameworks and guidelines and undergraduate curricula were integrated into the reporting.

5.2.1   SE in national HE policies, structures, and processes

In order to assess the existing conceptions of SE, respondents from MOSHE, HESC, and HERQA were asked to describe the expectations and assumptions of educational policy and strategic provisions on the role of students in improving their academic, social, and work-related competencies. Similarly, university-level respondents such as TQADs, CQA heads, and department heads were asked to reflect on the expected roles of students in existing institutional QA policies, strategies, processes, and practices. For HE policy experts, the education policies, strategies, and regulatory frameworks clearly stated the role of students. In fact, the existing HE policy and strategic intentions consider students as actively involved in teaching and learning processes, as Respondent A indicated:

> The existing educational policies, strategies, and guidelines clearly outlined the expectations and role of students in universities. These policy and strategic provisions state the role of HE students as active participants in the teaching and learning process, who are responsible for their own learning and must exert efforts to address local problems. (Interview, July 15, 2020)

For respondent A, the policy and strategic frameworks not only expect students to be active but also encourage them to take responsibility for their own learning and do their part to address societal problems. Similarly, Respondent C argued that education policies and strategies require HEIs to consider their students customers; HEIs' principal role is serving the needs and interests of students and the community:

> HEIs are mandated with three core missions and their very existence depends largely on their students. Their main customers are students. Therefore, existing policies and strategies encourage HEIs to engage their students in teaching and learning, research, and community service endeavors. (Interview, July 23, 2020)

From this policy expert's reflection, it can be deduced that the existing HE policy and strategic frameworks place students at the very center of the education system. The emphasis placed on student-centered teaching, learning, and assessment and a decentralized decision-making process in the 1994 ETP supports this claim. The 1994 ETP explicitly describes the presumed role of students:

> The policy envisages bringing up citizens countrywide endowed with a humane outlook, responsibility, and democratic values who have developed the necessary productive, cognitive, creative, and appreciative capacity in order to participate fruitfully in the development and use of resources and the environment at large. (ETP, 1994, p. 6)

This policy intention reveals the importance attached to the improvement of students' academic, social, and work-related skills and competencies. In addition, the policy statement acknowledges the importance of designing an educational environment that fosters the development of KSAs that are indispensable to enhancing the student role in the overall development and democratization of the country.

Similarly, ESDPs I–V (MOE, 1998, 2003, 2005, 2010a, 2015a) seek to address students' roles in a number of ways. Each of these documents discusses the student role in HE governance and management, curricular development, and teaching and learning processes. For instance, ESDP III (MOE, 2005) underscores the importance of making the curriculum relevant by connecting new learning to the learner's previous experience and environment (p. 35). On the other hand, ESDP IV (MOE, 2010a) stresses improving the quality of HE by enhancing the quality of the teaching-learning process, students' interpersonal growth, and their employability skills (p. 64). Similarly, in ESDP V (MOE, 2015a), the development, delivery, and assessment of relevant and quality academic programs are emphasized. To achieve these aims, the implementation of student-centered active learning strategies at all levels of the education system is considered pivotal (p. 22).

The Ethiopia Education Development Roadmap 2030 (MOE, 2018) discusses the achievements and pitfalls of education policies, ESDPs, and other interventions implemented over the previous 25 years. This document enumerates policy-, strategy- and practice-related factors that have affected the growth of students' academic, social, and work-related skills and competencies in Ethiopian HEIs. Based on the findings of empirical research and benchmarking relevant international experiences, the Ethiopia Education Development Roadmap 2030 puts forward a number of policy- and strategy-related recommendations that are intended to improve students' educational experiences and learning outcomes and the quality of HE in the country. From those recommendations, the following is particularly worth noting:

> There is a need to produce university graduates with balanced cognitive and non-cognitive skills and higher-order thinking skills such as critical, creative, and problem-solving thinking, along with a high degree of computer literacy. To achieve this, co-curricular activities should be given due attention. Accordingly, learning beyond the classroom (from peers, industrial placements, apprenticeships, and projects) should be strengthened. (MOE, 2018, p. 53)

The recommendations stipulated in the roadmap stress the importance of developing graduates' academic, social, and work-related competencies by designing and implementing diverse classroom, on-campus, and off-campus educational experiences.

In addition, the 2003, 2009, and 2019 HE proclamations clearly specify the role of students in the teaching, learning, assessment, QA, and governance structures of HEIs. Stressing the importance of transforming the student experience and SE in teaching and learning processes, the Article 13 of the 2003 proclamation states the following:

> Higher education or training offered at any institution shall be that which focuses on experience and student participation, that is practice-oriented, that takes the objective situation of the country into consideration; encourages independent

thinking, reflects modern views, and focuses on problem solving. (Federal Democratic Republic of Ethiopia, 2003, p. 2238)

The 2009 proclamation attempts to address students' role from the broader curricular design, delivery, and assessment perspectives. Article 21.1 of the proclamation states the following:

> Curricular design, delivery, and assessment of learning outcomes in any institution shall aim at enabling the learner to acquire pertinent scientific knowledge, independent thinking skills, communication skills, and professional values that together prepare him or her to become a competent professional. (Federal Democratic Republic of Ethiopia, 2009, p. 4988)

The recently revised HE proclamation goes further in expanding students' roles and rights in HEIs. The proclamation details that students in HEIs have the right to "enjoy the freedom to learn with appropriate opportunities and conditions in the classrooms, campuses, and the larger community" (Federal Democratic Republic of Ethiopia, 2019, No. 1152, 12th, Article 38, p. 11474). These proclamations clearly provide students with the legal rights to actively engage in curricular design, QA and governance systems, practice-oriented teaching, and learning and assessment processes; equally indisputably, they mandate institutions to facilitate the provision of those rights.

However, the implementation of the intended policy, strategic, and regulatory frameworks appear to have been overshadowed by other strategic priorities. Regarding this, Respondent B was quoted as follows:

> Existing educational policies and strategic documents placed various priorities at different point in time. Initially, the expansion and massification of HE took central stage while improving the quality of input, process, and output aspects received greater attention in later policy and strategic discourses. Now, there is a shift to placing more emphasis on enhancing the quality of education and student outcomes at all levels. (Interview, July 16, 2020)

The emphasis placed on the expansion of HE and the provision of inputs (teaching and administrative staff, libraries, laboratories, ICT, and dormitories) to newly established HEIs contributed to the lower emphasis given to processes

(teaching, learning, assessment, and evaluation) and student outcomes (learning achievement and graduate outcomes). It is argued that "through improving the quality of inputs (e.g., availability of qualified and competent teachers, libraries, etc.) student outcomes improve" (Respondent A, Interview, July 15, 2020). However, the implementation of these policies placed little emphasis on enhancing students' roles and learning outcomes and the actual quality of education in Ethiopian HEIs. The growing concern over the deterioration of the quality of HE and students' outcomes appears to have contributed to the emphasis on advancing SE in diverse on- and off-campus educational experiences, learning gains, graduate outcomes, and the overall quality of HE in Ethiopia (MOSHE, 2020).

5.2.2 SE in national and institutional QA policies, strategies, and practices

Examining the role of QA and QE policies and practices in transforming students' educational experiences and outcomes was one of the primary intentions of the present study. Accordingly, HERQA experts, public and private university TQADs, and CQA and department heads were asked to comment on the expected role of students in national and institutional QA policies, strategies, and practices. Their responses make clear that existing QA policies, strategies, and guidelines encourage universities to create a conducive environment that promotes SE at all levels. In this instance, Respondent B was quoted as follows while explaining the expectations of HERQA in conducting IQAs:

> In conducting IQAs, emphasis is given to auditing the extent to which universities actively engage students in developing their academic, social, and work-related competencies. We audit whether departments, in accordance with the nature of the disciplines they teach, have created a conducive teaching and learning environment that facilitates the engagement of students. This includes equipping laboratories, providing simulated experiences, implementing student-centered teaching and learning, and organizing internships and field experiences. Apart from this, we investigate whether teachers are teaching in accordance with the

curricula and if departments create in- and out-of-class experiences for their students. Moreover, universities are asked to engage their students in various extra-curricular activities (clubs) to enable them develop their academic, social, and work-related competencies. (Interview, July 16, 2020)

Respondent B's reflection clearly indicates the extent to which the IQA process expects public and private universities to create an enabling classroom, on-campus, and off campus teaching and learning environment that promotes the quality of students' learning experiences and outcomes. Supporting this view, Respondent D stated, "the existing QA policies and guidelines emphasize improving students' engagement and achievement of learning outcomes and graduate competencies" (Interview, August 5, 2020). Focusing on the provisions in HE proclamations and university senate legislation, Respondent C stated the following:

> The HE proclamation and university legislation clearly stipulated the roles, duties, rights, and responsibilities of students in developing their academic, social, and work-related competencies. The student is mandated with the right to learn, think freely, have access to essential learning resources, and to respect and uphold existing national and institutional laws and regulations. In addition, students are expected to engage in research activities and innovative and creative practices. Moreover, students are expected to apply the knowledge, skills, and competencies gained through their engagement in teaching, learning, and research endeavors to address societal and community problems. (Interview, July 23, 2020)

From Respondent C's point of view, it is crystal clear that the existing regulatory and legislative frameworks detail the expected roles and responsibilities of students. Similar reflections were also offered by Respondent K, who emphasized the roles and responsibilities of students in existing university- and college-level QA guidelines:

> The existing QA documents expect students to meet set program and curriculum objectives by using all the necessary instructional resources at their disposal. They also encourage students to own and be responsible for their own learning. In addition, these documents consider students to be an important part of the effort to ensure the quality of learning and [improve] student outcomes. (Interview, August 5, 2020)

The national and institutional QA policies, strategies, regulatory, and legislative provisions thus consider students' active engagement, sense of ownership, and responsibility as essential elements of improving students' educational experiences and learning outcomes. Realizing these expectations entails the active involvement of students in classroom, on-campus, and off-campus educational experiences.

In order to cross-examine respondents' reflections with the national and institutional QA policy, strategy, and regulatory frameworks, HERQA's quality audit focus areas and program level quality audit manual, the sampled university senate legislation and QA policies and guidelines were reviewed. The documents largely corroborate the claims made by respondents. For instance, the IQA focus areas developed by HERQA incorporate assessing the quality and relevance of teaching, learning. and assessment in HEIs into the audit process (HERQA, 2006, 2013). This area encompasses a number of reference points, many of which address the role expected of students in teaching, learning, and assessment processes and procedures.

In addition, the QA policies and guidelines developed by the sampled universities address the roles and responsibilities of students in governance, curricular development, and teaching, learning, and assessment processes and procedures. For instance, the JU QA policy (2020) underscores the importance of providing quality teaching, learning, and research to the accomplishment of the university's mission and strategic goals. It also states the role of students, along with academic, administrative staff, and other stakeholders, in ensuring the quality of the university's teaching, learning, and outreach services (JU-QA policy, 2020, pp. 5–8). JU has also developed a guideline for the implementation of team work, with the intention of helping the university realize its 2025 vision, which is to become a premier world-class university. More specifically, the guideline was devised to improve students' learning and the productivity and creativity of staff to

deepen students' understanding of subject matter content and achieve the intended learning outcomes. Moreover, the guidelines were developed to assist students develop lifelong learning capabilities and other employability skills that are in high demand in the 21st century (JU's Guideline for Team Work Implementation, 2017, p. 2).

Similarly, the QA experiences from AdU illustrate the importance attached to enhancing the student's role in QA processes. Reports available from AdU document the importance of student involvement in decision making, evaluation of the quality of teaching and learning process, and provision of feedback in tracer studies and customer satisfaction surveys to improve the overall quality of the services delivered (Minda, 2017, p. 3). AdU's Active Learning Implementation Guide clearly makes the engagement of students in active teaching and learning approaches mandatory to realize institutional goals (Yimulaw, 2011, p. 1).

In addition., the QA policies of MU and the University of Gondor were examined. The MU QA policy states that the teaching and learning process should reflect learner-centered and outcome-based teaching and learning practices. It also clearly indicates that teaching and learning processes should maintain a proper balance between teaching theory and providing practical experiences. It highlights the importance of implementing appropriate, varied, and innovative instructional strategies that inculcate the idea that students are primarily responsible for their learning (MU-QA Policy, 2018, p. 18). The QA policy of the University of Gondor, meanwhile, emphasizes improving the quality of academic programs, teaching, learning, and assessment practices and thus student outcomes. The policy clearly details the importance of student involvement in governance and QA procedures. It also advocates the implementation of instructional methodologies that enable the learner to develop their cognitive, social, and emotional capabilities. In addition, the policy emphasizes the overall development of students' personalities

by promoting their engagement in co-curricular activities (University of Gondor QA Policy, 2018, pp. 13–21).

Therefore, institutional QA policy and guidelines also consider SE in diverse classroom, on-, and off-campus educational experiences as a vehicle to enhance the quality of students' learning and their achievement of expected outcomes. However, the recent nature of the policy documents suggests that the active engagement of students in QA, governance, teaching, learning, and assessment processes is a fairly new development in Ethiopian HE QA discourses.

It is also worth noting that not all respondents shared the same opinion regarding the emphasis given to the role of students in existing QA policies and practices. Respondents raised various reasons. For instance, Respondent D criticized IQA processes for their limitations in promoting the development of students' social and work-related skills in private universities:

> The existing national QA polices, strategies, and guidelines usually emphasize students' academic achievement. They give little emphasis to improving students' social and work-related skills and competencies. Graduates often lack essential social skills such as the ability to work collaboratively, adjust to the work environment, and establish smooth relations with others. (Interview, August 5, 2020)

When asked to amplify those remarks, Respondent D stated the following:

> QA discourses from private university perspectives are mainly related to ensuring the fulfillment of educational resources and facilities. Accordingly, the availability of competent and qualified academic and technical staff and the provision of adequate library, laboratory, and workshop services are emphasized in auditing private HEIs. Therefore, HERQA's audit, follow-up, and accreditation process gives less priority to what institutions are doing to improve SE, learning achievement, and graduate outcomes. (Interview, August 5, 2020)

Emphasizing the adequate provision of resources is also reflected in the QA practices of public universities, as the following remarks from Respondent N make clear:

> To some extent, the existing QA guidelines and standards encourage departments to enhance the development of students' academic, social, and work-related experiences. However, the QA standards set by the university ask departments to employ ample qualified staff and equip libraries and laboratories with required learning resources. (Interview, August 4, 2020)

Respondent N questioned the way that QA policies, strategies, and guidelines were being implemented, arguing that there is a mismatch between policy intentions and the actual practices:

> Though the existing QA policies and guidelines state the role of students in developing their academic, social, and work-related competencies, the way we are teaching our students is not derived from existing national- and university-level QA policies and guidelines. (Interview, August 4, 2020)

By contrast, Respondent K views the diminishing role played by students as a key factor impeding SE and the achievement of expected outcomes:

> Even if the expectations are there, I don't think students are playing their roles as expected. Students' roles are deteriorating compared to when we were students and when we assumed teaching positions. Student motivation to learn, put in effort, and invest their time in learning hard disciplines is very low. They only seek shortcuts to pass examinations or complete courses rather than focusing on improving their knowledge, skill, and competency outcomes. (Interview, August 5, 2020)

Similarly, Respondent E maintained that "students' mentality about the roles and responsibilities they are supposed to play to improve their learning and achievement needs to be changed if we intend to transform the quality of students' academic, social, and work-related outcomes" (Interview, August 3, 2020)

To sum up, existing national and institutional QA policies, strategies, and guidelines stress the importance of students' active engagement in HE governance, curriculum development, and teaching, learning, and assessment processes and procedures. Creating a supportive platform that enhances students' involvement in classroom, on-campus, and off-campus educational experiences was viewed as contributing to the enhancement of students' academic, social, and work-related skills and competencies. However, there appears to be a major mismatch between

policy and strategic intentions and actual practices. For instance, the existing IQA process was reported to emphasize the fulfillment of educational inputs rather than evaluating the quality of the processes that are ultimately related to SE, the achievement of learning, and graduate outcomes. In addition, the audit process was criticized for its emphasis on students' academic engagement, with social and workplace engagement receiving much less attention. Moreover, the implementation of national and institutional QA policies, strategies, and guidelines suffers from a lack of clarity, a top-down mentality, and a failure to consider the actual contexts in which Ethiopian HEIs operate.

5.2.3   SE in undergraduate program curricula

The design, development, implementation, and evaluation of program curricula plays a central role in determining the role of students and the nature of their outcome measures. Curriculum documents are expected to clearly define the expected role of students in programs' rationale statements, objectives and learning outcomes, graduate profiles, and teaching, learning, and assessment processes and procedures. The HERQA's IQA focus areas required universities to develop robust procedures for the design, approval, and review of any academic curriculum (HERQA, 2006). Therefore, assessing the extent to which existing undergraduate curricula emphasize the promotion of SE in diverse classroom, on-campus, and off-campus educational experiences was found to be imperative. Examining the nature of learning outcomes and the types of instructional approaches and methods designed to facilitate the achievement of the expected learning outcomes was instrumental to assess the relevance of the curriculum to students' needs, interests, and priorities.

To achieve this, HERQA's IQA Policy and Program Level Audit Manual, university QA policies and guidelines and, selected nationally harmonized undergraduate curriculum documents from major disciplinary areas were evaluated. In addition, quotations from respondent's reflections on the expected role of students in undergraduate curricula were used to assess the extent to which the curriculum design and development process centered on transforming students' on- and off-campus educational experience and outcomes.

As to respondents' reflections, there were variations in how they perceived the role of the existing curricula in promoting a transformation of SE and students' educational experiences and learning outcomes. Some respondents claimed that the curricula require institutions to create classroom, on-campus, and off-campus educational opportunities. They also encourage teachers to use student-centered teaching and learning approaches with the aim of enhancing students' roles, sense of ownership, and achievement of the desired learning outcomes. Others, however, disagree with such claims; they criticized the curricula for their lack of relevance and placing a heavy emphasis on content and theory teaching rather than providing hands-on, practical, and experience-centered learning opportunities for students. Very few indicated that recently implemented curricular reforms have addressed most of the limitations and concerns raised about previous undergraduate curricula.

To offer in-depth insights into the respondents' reflections, the following quotations from two opposing sides are presented. Reflecting on the IQA's expectations, Respondent B stated the following:

> The engagement of students starts with the curriculum. We audit the amount of instructional time allotted to practice-oriented teaching and learning. For instance, the health science curriculum has a delineated time that needs to be spent in clinical practices. When a program-level audit is carried out, subject specific experts are asked to examine the extent to which the designed curriculum is engaging and centered on experience. (Interview, July 16, 2020)

Respondent B's remarks make clear that the IQA process examines the extent to which existing undergraduate curricula emphasize promoting SE in practice-oriented instructional process. Focusing on private HEIs, Respondent D reflected that "with the intention to enhance SE, our undergraduate program curriculum incorporated various active teaching and learning processes. Besides, it clearly states the role of students and teachers in developing KSAs" (Interview, August 5, 2020).

One respondent, whose code is withheld because of his or her role in a given initiative, pinpointed the strengths of the curriculum in clearly indicating the expected role of students in the teaching and learning process:

> In every curriculum, the mode of teaching, learning, and assessment is clearly stated. It encourages SE in the instructional process. It supports a problem- and enquiry-based learning approach. It solicits students' participation, exploration, and experimentation. It calls for implementing educational experiences that promote the ability to analyze, synthesize, and evaluate. (Interview, August 13, 2020).

Similarly, Respondent M argued that the undergraduate social science curriculum was designed based on the experience of students:

> We examine the extent to which the curriculum is in line with current national interests and students' backgrounds, needs, and aspirations. I do not think the curriculum document has problems since it was devised based on a comprehensive market, institutional, and stakeholder need analysis. (Interview, August 9, 2020)

The reflections made suggest the current undergraduate curricula do address the student's role in the teaching, learning, and assessment process. The design and development of these curricula considered the experience of students with the intention of promoting SE and a sense of ownership in the teaching and learning processes.

There were, however, respondents who identified limitations in the existing undergraduate curricula in transforming students' educational experiences and learning outcomes. For instance, Respondent A discussed the failure of the undergraduate curricula to address students' prior experiences (Interview, July 15, 2020). By "experience," the respondent meant students' previous educational background, learning capabilities, and interests. Supporting this claim, Respondent G discussed the observed limitations of the existing curriculum:

> The existing QA policies and guidelines do not promote the development of a curriculum that is engaging and experience-centered. For instance, the undergraduate curriculum in Governance and Development Studies assumes that students enrolled in the program have achieved the competencies expected. It does not look into students' backgrounds, which may have implications in influencing student learning and achievement. (Interview, August 6, 2020)

Respondent H shared similar opinion. However, this respondent detailed broader policymaking process problems affecting the design and development of the undergraduate Law school curriculum:

> Some of the content seems to be detached from the lived experience of students and from the past and future legal, economic, and political context of the country. In addition, some of the courses were influenced by the former political policies of the country. Priorities were given to some issues over others. These gaps are observed in the existing curriculum. (Interview, August 6, 2020)

In a related explanation, Respondent C stated that the existing curriculum lacks relevance to the actual context of the country and offers limited opportunities for students to actively engage in the teaching and learning process:

> The strength and limitations of the existing curriculum were examined. It was concluded that the existing curriculum has limitations in making university students understand and appreciate their country's historic, artistic, cultural, linguistic, and geographic foundations. In addition, the curriculum is limited in providing practice-oriented and engaging teaching and learning opportunities for students. (Interview, July 23, 2020)

Focusing on the limitation of the curriculum in bringing about attitudinal changes, Respondent E reflected as follows:

> Though the existing curriculum included various forms of active learning modalities, the constituents of the curriculum place little emphasis on the development of attitudinal skills (habits and values). Furthermore, the curriculum was not designed in consideration of the experience of students, as it is content-heavy and theoretical in nature. (Interview, August 3, 2020)

Focusing on health science curricula, Respondents I and J raised similar concerns. Respondent J indicated that "because the health science curricula (Nursing, Medicine, etc.) were adopted from international curricula, the integration of local medical practices and students' prior learning experience is often missing" (Interview, August 5, 2020).

The various discussions and reflections make clear that the existing undergraduate curricula have a number of limitations, including a lack of relevance to Ethiopia's broader sociocultural and economic landscape, a lack of considering students' backgrounds and experiences, and limited opportunities for practice-oriented teaching and learning.

Various factors contribute to the observed limitations of the curriculum in transforming students' educational experiences and learning outcomes. For instance, Respondent N identified problems associated with the way the curriculum was designed:

> It is known that the design and development process for undergraduate curricula is centralized. Universities participate in providing comments and suggestions to improve the curricular framework developed by MOSHE. What is alarming is that previously existing curricula were copied directly without critically examining current trends and developments. This limited the consideration of students' prior knowledge, skills, and experiences. (Interview, August 10, 2020)

Respondent F, meanwhile, cited a lack of student involvement in the design, development, and evaluation of courses and curricula as the principal reason for their failure to improve SE and student outcomes:

> I have the experience of making my students evaluate and comment on the course I teach. I enquire about what went right, what went wrong, and what should be improved after completing each unit of study. Welcoming students to evaluate

courses enables the instructor to be reflective and improve the quality of the instructional process. Therefore, much needs to be done to enhance SE in designing, implementing, and evaluating the academic curriculum. (Interview, August 13, 2020)

Taking a different perspective, Respondent B questioned the role that universities played in raising the awareness of students about their expected roles and responsibilities. This respondent also claimed that students are not exerting the effort expected:

Students are not critically made aware about the roles and responsibilities stipulated in the student handbook and curriculum. Besides, students are not expending their efforts and spending their time on matters that directly influence their academic achievement and development of social and work-related competencies. (Interview, July 16, 2020)

Respondents K and L took a different stance, arguing that previously implemented undergraduate curricula had several limitations. However, recent curricular reforms have addressed most of those concerns. In reflecting on the changes made to the revised Natural Science curriculum, Respondent K stated the following:

Previously, the design and implementation of program curricula did not address the engagement and experiences of students. Recent curriculum design processes, however, *have* considered the knowledge and skills students developed in secondary schools. In addition, the teaching methods are designed in a way that fosters students' experiences, learning, and achievement. (Interview, August 5, 2020)

Respondent L reflected on recent curriculum harmonization efforts:

Emerging QA initiatives called for curricular revision and harmonization. In this effort, the development of social and work-related skills were heavily emphasized. The curriculum design process attempted to address the challenges and problems students face at work and in life. (Interview, August 7, 2020)

Sharing this point of view, Respondent N added that "current efforts to revise the existing curricula are expected to emphasize integrating students' prior knowledge, skills, and experiences" (Interview, August 10, 2020).

A centralized undergraduate curricular development process, limited instructor and student involvement in that process, and students' lack of motivation,

enthusiasm, and interest in learning have thus been identified as the major factors affecting the quality, relevance, and appropriateness of the existing undergraduate curriculum.

To corroborate or refute existing claims and points of view, selected undergraduate curriculum documents from six disciplines (Social Sciences, Natural Sciences, Business and Economics, Law, Nursing, and Engineering) were reviewed. Though the review encompassed Bachelor of Arts (BA) and Bachelor of Science (BSc) programs offered at the sampled universities, the review of the Social Sciences and Natural Sciences curricula also featured Bachelor of Education (BEd) curriculum documents. The documents consulted were nationally harmonized and designed using a modular curricular design and development process. The review guidelines emphasized examining each curriculum's rationale, program objectives, graduate profiles, expected teacher and student roles, teaching, learning, and assessment methods, and the amount of instructional time allotted to classroom, on-campus, and off campus educational experiences. A summary of the review results is presented below.

5.2.3.1 Curricula rationales and purpose statements

The rationale statements in curriculum documents provide justifications for developing academic programs. They delineate the broader philosophical assumptions, the purposes of the program, and the degree of contribution to local and global market needs and development strategies. In addition, they demonstrate the consistency of the given curriculum with the vision, mission. and goals of universities and the national and global human resource development policies. Moreover, each such document is expected to map the relationships between the proposed curriculum, the result of the needs and market analysis, and the gap it

intends to fill. Noting this, HERQA's IQA focus areas require universities to justify the relevance of the curriculum by providing evidence collected from various stakeholders (HERQA, 2006).

The review of these documents revealed that different rationales were provided for the design and development of academic curricula. The rationales discussed, though varying with the nature and orientation of the discipline, attempted to associate the purposes of the curriculum with solving social, political, economic, technological, environmental, and institutional problems in Ethiopia. In addition, the rationale statement discussed the significance of the curriculum in minimizing the shortage of skilled labor by aligning the curriculum with national human resource development policies. An example of this rationale is reflected in the Natural Science curriculum, where the 70:30 (70% of students from Natural Science and 30% from Social Science Stream) enrollment policy was cited as a significant reason for the development of a modular curriculum. Moreover, the rationale statement attempted to incorporate the knowledge, skills, and attitudinal gaps the program intends to fill. There were also a few curricula (e.g., Engineering) whose rationale was to help students realize their full potential by developing their entrepreneurial and work-related skills.

The rationale statements in the reviewed curricula adopt a combination of curricular ideologies. Ideas from the scholar academic, social efficiency, and learner-centered philosophies influenced the rationales in the various curricula. For instance, the emphasis of the curriculum on teaching academic disciplines is centered in the scholar academic ideology. The adoption of "clustering" courses based on their inherent resemblance rather than "integrating" courses around the major professional competencies identified indicated the importance attached to subjects and disciplines.

On the other hand, the emphasis placed on determining the needs of society and preparing students to address society's current and future problems is rooted

in social efficiency ideologies (Alanazi, 2016; Schiro, 2012). For instance, HERQA's Program Level Quality Audit Manual (2013) indicated that conducting a needs analysis by collecting feedback from external sources—the market, students, alumni, peers, and international experts—is mandatory (p. 19). In addition, respondents claimed that "efforts to develop a new curriculum or revise an existing one takes place after collecting and analyzing existing needs, including those of employers, stakeholders, public and private institutions, and alumni" (Interview, 2020). Moreover, the emphasis placed on nurturing students' innate capabilities and potential reflects the core notion of the learner-centered ideology (Alanazi, 2016; Schiro, 2012).

The rationale statements thus seem to be limited in mapping the relationships between the proposed curricula, the results of the needs and market analyses, and the generic and specific competencies identified. Moreover, limitations were observed in providing empirical evidence that strongly justified the need for the proposed revision or the development of a new academic program. Respondent F's reflection supports this view: "Ensuring relevance starts from examining whether or not the curriculum design process was based on assessed current and future national interests and market needs, identified knowledge and skills and job opportunities. The existing curriculum was not developed by going through such rigorous analysis" (Interview, August 13, 2020).

5.2.3.2 Graduate profiles

An academic curriculum is expected to clearly define graduate profiles based on the demands of an academic degree and the current and future labor market needs relevant to the program. In addition, it should incorporate the expected level of graduates' performance behaviors, which are translated in terms of knowledge,

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skills, and values. The graduate profile should also include the generic and subject specific sets of competencies that graduates are expected to have achieved before receiving their degree.

In the curricula reviewed, the graduate profiles attempted to incorporate the subject-specific and generic competencies that students are expected to master after completing the programs. The graduate profiles also covered a wide range of KSAs that graduates are expected to develop. The KSA areas largely revolve around addressing the social, political, economic, technological, environmental, and institutional problems that the program was designed to help address. In addition to dealing with local problems, the profiles also emphasized equipping students with competencies that would enable them to function and compete in the global market.

Overall, the graduate profiles emphasized acquainting students with the essential KSAs relevant to addressing urgent social problems by adopting a learner centered-teaching and learning approach. However, compared to the attention paid to the development of disciplinary knowledge and skills, the emphasis placed on the development of transferable skills, entrepreneurship, and participation in global society was found to be lower in most curricula.

5.2.3.3   Program objectives and learning outcomes

A curriculum is expected to clearly define the objectives and learning outcomes students are expected to achieve. They should be stated so that they reflect and match the market analysis and professional and program profiles previously identified. They are described in terms of competencies (KSAs) to be attained by the students. In addition, they are expected to emphasize the achievement of the highest outcome thresholds, such as the development of analytical, critical, and

creative thinking skills, communicative, collaborative, problem-solving, and entrepreneurial skills, and real-world and work-related competencies.

The general and specific objectives stated in the academic curricula reviewed were examined; both general and specific program objectives were stated clearly. The predetermined set of objectives emphasize the acquisition of discipline-oriented knowledge and skills. In addition, the objective statements incorporate the development of scientific research, enquiry, and problem-solving skills and the cultivation and development of positive attitudes and desired character traits. However, the emphasis placed on the development of cognitive, psychomotor, and affective domains was not even, as more objectives are clustered around the cognitive domains, with comparatively minor emphasis on the psychomotor and affective domain objectives. There were also a limited number of higher-order learning outcomes and objectives. This showed that learning outcomes requiring students to invest much of their time and energy in classroom, on-campus, and off-campus learning experiences appear to receive less emphasis. Finally, disciplinary orientations appear to be disregarded in stating program objectives and learning outcomes.

5.2.3.4 Teaching, learning, and assessment methods

The broader assumptions that guided the development of the curricula influence the nature of teaching, learning, and assessment strategies incorporated into those documents. The results of a review of that topic are presented below.

5.2.3.4.1 Teaching and learning process

A curriculum document is expected to delineate the teaching and learning processes, procedures, and methods best suited to achieving the formulated

learning outcomes and competencies. It should emphasize the implementation of teaching and learning processes that provide broad educational opportunities for diverse students. It should also incorporate a variety of active and deep learning strategies that enhance students' behavioral, cognitive, affective, and community engagement.

In the reviewed curricula, the implementation of student-centered teaching and learning process is often advocated. In most documents, various teacher- and learner-centered strategies were incorporated with the intention of enabling learners to achieve the desired program learning outcomes. The implementation of a combination of interactive lecture and different types of collaborative and independent learning strategies supports the argument made. In addition, field visits, lab activities, clinical practice, workshops, community-based training programs (CBTPs) and practical attachments and internships are formulated to advance SE in in classroom, on-campus, and off-campus learning experiences. This indicates that the teaching and learning processes reflected in the curriculum documents tend toward adopting a combination of methods and processes derived from different educational philosophies and learning theories. The teaching methodologies and learning strategies that are cited in the curricula are derived from both traditional educational philosophies like perennialism and essentialism and more modern approaches like progressivism and reconstructionism. Ethiopia's recent HE policy and strategy initiatives have endorsed a shift from perennialism and essentialism to progressivism and existentialism (MOSHE, 2020). In addition, the central notions of psychological learning theories (e.g., behaviorism, social learning, cognitivism, and constructivism) appear to have influenced the selection of teaching and learning methods and processes.

The observed limitations are related to a failure to adopt differentiated teaching and learning methods that match the nature and orientation of both the different disciplines and learners' varied characteristics. For instance, similar teaching and

learning methods and procedures are included for courses that significantly varied in purpose, emphasis, and structure. Moreover, the design and implementation of teaching and learning episodes that integrate relevant instructional technologies are underemphasized.

5.2.3.4.2 Assessment and feedback provision process

Any curriculum should detail the assessment and evaluation processes, methods, and procedures relevant to measuring the achievement of set learning outcomes and competencies. Moreover, it is expected to detail the feedback provision strategies used to comment on students' performance. In general, various forms of diagnostic, formative, and summative assessment techniques should be incorporated in a curriculum.

In the observed curricula, various forms of continuous and summative assessment methods and techniques are cited to assess students' achievements of expected learning outcomes. Assessment practices are considered to play a salient role in motivating students to learn, to create learning opportunities, to give feedback to students and teachers, to grade student performance, and to ensure quality. Though the methodologies listed for both assessment forms vary across disciplines; tests, quizzes, group and individual assignments, lab and field reports, oral presentations, and final examinations dominated the assessment and evaluation methods and procedures across disciplines. In the Health Science curriculum, seminars, weekly reports, structured feedback, logbooks, and portfolio assessments are also included. In some disciplines (e.g., Governance and Development Studies and Physics) students' active participation and class attendance are considered an important part of the evaluation process.

However, except for a few academic program curricula, the issue of feedback and feedback provision mechanisms was left undiscussed. In addition, the

assessment—rather, the evaluation—mechanism in most curricula emphasized continuous testing more than CA, a form of assessment in which students receive continual feedback on their performance, progress made, and gaps that need to be improved. Moreover, clear feedback provision mechanisms are not properly addressed in most of the curricula reviewed for the present study. This suggests that limited attention is paid to promoting assessment for learning.

5.2.3.4.3   The amount of instructional time allotted

The amount of time students spend in instructional processes helps determine their level of engagement. A curriculum is expected to provide a well-balanced division of workload between students and instructors. In addition, the calculated workload per program component must correspond with the time that a typical student needs to achieve the required learning outcomes. Moreover, a curriculum should clearly indicate student workloads, divided into proportions involved with attending lectures, lab activities, field experiences, home study, collaborative work, project preparation, distance learning, and community-based and co-curricular activities.

The review results indicate that the amount of instructional time allotted for the different teaching and assessment activities varied from course to course. The allocation of time was partly dependent on the number of credit hours, using the European Credit Transfer and Accumulation System (ECTS), assigned for the course and on the mode of course delivery (block or parallel). However, in most courses, the average amount of time allotted for lecture and home study was found to be higher, followed by group work, individual activity, and tutorial classes. Practical attachments in some fields (e.g., Education, Engineering, Health Sciences) and engagement in CBTP courses across all undergraduate programs were allotted their own allotted times. The limitation observed in this regard is the lack of

monitoring and evaluation mechanisms. There is no clear strategy to monitor the effective used of allotted instructional time by either teachers or students.

5.2.3.5   Expected teachers and students' roles

The curriculum should detail the roles and responsibilities of course instructors, tutors, and students in designing, developing, implementing, and evaluating instructional processes. This helps determine the extent to which the curriculum emphasizes the promotion of student experiences, SE, and improvement of student outcomes.

In this regard, there are variations in the way the curricula reviewed described the roles and responsibilities of teachers and students. For instance, the Operational Theatre Nurse Curriculum clearly states the roles and responsibilities of students. The curriculum underscores the importance of giving students greater responsibility by enhancing their sense of ownership and motivation and preparing them to become lifelong learners. It advocates the implementation of learner-centered teaching, learning, and assessment methods. On the other hand, a few curricula (e.g., Governance and Development Studies) approach the expected roles of students in terms of classroom attendance, participation, contributions to group work and class discussions, submitting assignments on time, and abstaining from cheating. In still others, (e.g., Physics) teachers' and students' roles and responsibilities are stated in line with instructional processes such as attending lectures, working in group activities, and engaging in experimentation and problem-solving exercises.

It is worth noting that all undergraduate programs at JU integrate CBTP courses. These courses require students to be placed in nearby community centers (health centers, public offices, schools, etc.) to identify pressing community

problems, develop plans, mobilize resources, and address the problems in teams. The integration of this aspect is aimed at enhancing SE in community affairs.

5.2.4   SE in HE teaching, learning, assessment policies, and practices

One core mission of HEIs is promoting quality teaching, learning, and assessment. Among others, the successful implementation of curricular intentions relies heavily on the design, development, and implementation of effective teaching, learning, assessment, and evaluation processes and procedures (HERQA, 2006, 2013). In addition, the dominant conceptions held and the philosophical assumptions adhered to regarding teaching, learning, and assessment influence the determination of the role of students in the instructional process and the development of academic, social, and work-related skills and competencies. To shed light on the extent to which teaching, learning, assessment, and evaluation processes are actually transforming students' experience and outcomes, the existing QA policy and guidelines and regulatory provisions were examined. In addition, respondents were also asked to reflect on those practices and processes.

As to regulatory provisions, the three HE proclamations extensively address the issues of teaching, learning, and assessment. It is crucial to note that the proclamations urged universities to design, develop, and implement student-centered teaching, learning, and assessment processes. For instance, Article 41 of the 2009 HE proclamation states the following:

> The teaching and learning process in any institution shall be, whatever the methods of delivery employed, interactively student centered and shall promote active learning. The teaching and learning conditions in any institution shall, as far as practicable, create an in-class and on-campus enabling environment and encouraging atmosphere for students to learn. In addition, the design of courses and their delivery shall be such that the courses shall add to the knowledge and skills students already have and cultivate constructive professional values. (Federal Democratic Republic of Ethiopia, 2009, p. 5006)

Regarding assessment, the proclamation states that "students shall be assessed properly and fairly on the basis of their learning experience; the marking system shall be reflective of the competences achieved by students" (Federal Democratic Republic of Ethiopia, 2009, p. 5006). These excerpts make clear that the teaching and learning process implemented should aim at enhancing students' role and involvement in the instructional process. In addition, universities are required to create a conducive teaching and learning environment that considers students' previous knowledge and experiences and promotes learning beyond the classroom. Moreover, the proclamations stress the design and implementation of competency-based assessment and evaluation procedures.

The GTPs, meanwhile, pinpoint the need to focus on "enhancing student-centered teaching and learning in HEIs through designing and implementing competency-based curriculum and fostering peer learning and support systems (MOE, 2015c, p. 28). HERQA's IQA and Program Level Quality Audit Manual clearly state the need to design and implement appropriate, varied, and innovative teaching, learning, and assessment methods and procedures that are aimed at enhancing students' role in the instructional process, the achievement of required outcomes, and the development of competencies (HERQA, 2006, 2013).

Respondents' perceptions of the teaching, learning, and assessment practices vary with position held and level of engagement in the day-to-day operation of universities. Respondents with the highest positions and vested with the responsibility of making policy and strategic decisions focus more on what the teaching, learning, assessment, and evaluation practices should look like in both public and private universities rather than describing the actual practices observed. For instance, Respondent C stated, "One of the central tasks of students in HEIs is to engage themselves in their learning" (Interview, July 23, 2020). In addition, Respondent A argued that "the government invested a lot to expand HE, ICT

infrastructures, and capacity development programs for teachers, leaders, and student services. This was done to enable universities to create a learning environment where students are challenged and engaged and learn with inside and outside the campus learning environment" (Interview, July 15, 2020), while Respondent B stated that "from the quality audit report, it might be difficult to suggest a challenging and stimulating teaching and learning environment is implemented across all academic curricula" (Interview, July 16, 2020).

Respondents vested with the responsibility of putting the high-level policies into practice at various levels focused more on what institutions are doing or expected to do to make the teaching and learning process engaging and experience-centered. For instance, Respondent D said the following:

> To encourage classroom engagement, the university provides continues pedagogical skills training for teachers. Accordingly, teachers are required to use active teaching and learning methods appropriate to their disciplines. The assessment methods used by teachers are expected to reflect students' involvement and engagement in individual and group works tasks. (Interview, August 5, 2020)

Similarly, Respondent E indicated that the teaching and learning process needs to emphasize the overall development of students and creating diverse learning opportunities:

> Teaching and learning should address the development of cognitive, psychomotor, and affective domains in a balanced manner. In addition, the teaching and learning process should be practice-oriented and aimed at enhancing SE. All these attributes of good teaching practices are essential to improving the engagement of students. We suggested in our QA guidelines that the curriculum should adopt an active teaching and learning strategy. If you examine the modularized curriculum, all the courses included various forms of active learning modalities. (Interview, August 3, 2020)

On the other hand, respondents who were engaged in close supervision of the everyday routines of colleges, schools, or departments tried to critically reflect on the existing teaching, learning, assessment, and evaluation practices. Some argued that the policy intentions and curriculum frameworks clearly stipulated the nature

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of the teaching, learning, assessment, and evaluation processes that was supposed to be implemented across all academic programs. For these respondents, the problem rests in the proper implementation, as with Respondent H:

> Considering university- or national-level QA policies and guidelines, their overall perception of the student's role is as an agent in the teaching and learning process. They intended to promote student-centered teaching so that students would have more engagement in the teaching and learning process. The institutional QA guidelines and policy documents consider students as a key element and the center of every activity. Therefore, the teacher should engage students so that they can contribute to the teaching and learning process. (Interview, August 6, 2020)

Focusing on the existing curricula, Respondent F indicated the following:

> In every curriculum, the mode of teaching, learning, and assessment is stated clearly. It encourages SE in the instructional process. It supports a problem- and enquiry-based learning approach. It asks for students' participation, exploration, and experimentation. It calls for implementing educational experiences that promote the ability to analyze, synthesize, and evaluate. (Interview, August 13, 2020)

A similar reflection was offered by Respondent M, who argued that the university had done significant work to make the teaching and learning process student-centered. For this respondent, peer and collaborative learning modalities and smart classrooms were introduced to improve the teaching, learning, and assessment environment" (Interview, August 9, 2020).

The reflections above indicate that the existing regulatory frameworks, national and institutional QA policies, and curriculum frameworks place students at the center of the instructional processes. To achieve this aim, various forms of student-centered and active learning and assessment strategies were suggested. However, the actual teaching, learning, and assessment practices fail to stimulate and challenge students in developing their academic, social, and work-related skills. There are noticeable implementation gaps, which can be attributed to several factors. For instance, the careful synthesis of respondent reflections reveals the limitations associated with the implementation of active teaching and learning

strategies as intended. Focusing on the context of private HEIs, Respondent D stated the following:

> The teaching and learning process is not active. In an active teaching and learning environment, the student is expected to have greater participation and involvement in individual and group work. Involvement in individual tasks enables students to explore their potential while working in groups helps students understand and respect others' points of view, learn how to work with others, and appreciate diversity. However, the teaching and learning process implemented across many institutions does not give students on- and off-campus educational experiences that enable them to actively engage in collaborative and cooperative instructional process. (Interview, August 5, 2020)

Similarly, Respondent E noted that the gaps indicated a failure to create diverse and practice-oriented teaching and learning opportunities for students:

> We suggested in our QA guideline that the curriculum should adopt an active teaching and learning strategies. If you examine the modularized curriculum, all the courses include various forms of active learning modalities. However, if you observe what is happening in the actual classroom, the lecture method dominates the teaching and learning practice. Students have little opportunity to engage. Suggesting different active learning methods does not enhance SE unless it is implemented properly. (Interview, August 3, 2020)

For respondent F, the problem runs deep and is urgent, as it is related to instructor commitment and motivation and the prevalence of corrupted practices. The commitment and motivation of teachers to properly use allotted instructional time, implement student-centered teaching and learning strategies, and ensure timely provision of feedback have deteriorated in recent years. This seems to contribute to the prevalence of academic corruption in Ethiopian HEIs. Reflecting on the situation, Respondent F stated the following:

> Academic corruption is everywhere in universities. Teachers perceive that dumping everything on students is what makes teaching student-centered and engaging. Heavy teaching loads, seeking part-time jobs, and a lack of satisfaction characterize today's HE instructors. The lower pay and poor economic conditions of instructors explains their lower motivation and commitment. (Interview, August 13, 2020)

Similarly, Respondent O reiterated that—although various student-centered methodologies were incorporated into undergraduate curricula— practice shows

that students are not actively constructing their knowledge and experiences (Interview, August 12, 2020). This is related to the dominance of teacher-centered teaching and learning.

On the other hand, Respondent L cited student-related challenges in the failure to put curriculum intentions into practice:

> The teaching and learning methods stated in the curriculum call for the implementation of a challenging teaching and learning environment. However, creating a stimulating learning environment became difficult since most of the students joined the program without interest. Most of them simply want to graduate rather than strive to earn better grades and achieve more. (Interview, August 7, 2020)

A similar reflection is also observed in Respondent D's remarks, which referred to students' growing involvement in non-academic issues as a pivotal reason:

> SE is one of the problems our education system is facing. It is in great danger throughout the country. This arose because students do not consider learning to be their own business but rather the business of the university or teachers or parents. Even though there are efforts to create different platforms by teachers and others to enhance the level of SE, their actual level of engagement in academic matters is deteriorating over time. However, students are actively engaged in political matters and issues circulating on social media rather than on their learning and developing competencies that will enable them to succeed in life and in the world of work. (Interview, August 5, 2020)

In related reflections, Respondent J also cited students' lack of a sense of ownership and responsibility, coupled with a number of instructor-related factors, in regard to the difficulties in implementing a challenging and stimulating teaching and learning environment:

> I don't think the existing teaching and learning environment is challenging and stimulating. From lower to higher levels, teacher-dominated teaching and learning characterizes our education system. Students feel it is the responsibility of the teacher to promote their learning. Therefore, it is assumed that teachers are providers of knowledge and skills, while students are regarded as passive recipients. In addition, the teaching episodes do not provide hands-on activities, and the clinical teaching experiences are not often audited and controlled. Though there are teachers who attempt to create a teaching and learning environment that

is challenging, there are also others who resist engaging students. (Interview, August 5, 2020)

Reflecting on Law School practices, Respondent H indicated that external political instability and upheaval challenged the school to implement a challenging and stimulating teaching, learning, and assessment process:

> Previously, the teaching and learning environment was challenging and stimulating. The curriculum requires the creation and implementation of a challenging and stimulating teaching and learning environment. Now, I feel that the climate has changed to some extent. For instance, when I was a law student, I remember students used to organize debate forums to enable students to engage in open, rational dialogues on various legal issues in the country. Now, due to the ongoing political instability, such platforms are few, and students do not speak their mind out of fear it might make other students hold a grudge against them. This situation discourages the school from organizing such open discussion forums. In a classroom setting, however, students do engage in hot discussions and debates, which sometimes lead to extending the debate beyond the classroom. Instructors use various methodologies to engage students in the teaching and learning process. However, the tradition of the law school organizing various forums has declined at JU. (Interview, August 6, 2020)

Related reflections were made by Respondent, who stressed the role of external factors in affecting the internal teaching and learning environment: "The last two or three years, there was a turbulent internal environment dictated by the external political upheaval" (Interview, August 5, 2020).

These remarks demonstrate that, while the teaching, learning, and assessment policies and regulatory frameworks mandated implementation of a challenging and stimulating teaching and learning environment in Ethiopian HEIs, instructor-, student-, and institution-related factors hamper the effective implementation of the policy intentions and regulatory provisions. Accordingly, teachers' lack of motivation, commitment, and persistence in using teacher-centered teaching and learning methods have affected the implementation of challenging and stimulating teaching, learning, and assessment policies and practices. In addition, students' lack of interest and motivation to spend their time and energy on matters that directly contribute to their development and achievement of academic, social, and work-

related skills and competencies undermine the realization of the established policy, curriculum, and regulatory priorities. In addition, external factors like political instability, unrest, security concerns, and the impact of social media pose challenges to the teaching, learning, and assessment practices of HEIs in Ethiopia.

5.2.5 Public and private HEIs' emphasis on students' educational experiences, learning achievements, and outcomes

The quality of educational experiences provided to students contributes to their learning achievements and their development of academic, social, and work-related skills and competencies. Accordingly, the emphasis given to the design, development, and implementation of diverse classroom, on-campus, and off-campus educational experiences and their role in transforming the quality of students' learning outcomes were explored. The following sections are organized by the findings obtained from the in-depth document review and quotations from participant interviews.

5.2.5.1 SE in on- and off-campus educational experiences

One of the central components of SE in HE is engagement in on- and off-campus educational experiences. The provision of such experiences offers students the opportunity to engage in enriching and practice-oriented educational activities that can be essential to transforming their academic, social, and work-related skills and competencies. In the context of the research questions in the present study, the national and institutional HE and QA policies, strategies, and proclamations and undergraduate curricular frameworks were examined to identify the strategies proposed to promote student learning beyond the classroom. In addition,

respondents' reflections were assessed to examine the extent to which policy and curricular intentions were actually implemented.

As far as the ETP is concerned, organizing practice-oriented teaching was considered essential to promote the development of students' professional skills and their participation in the development and use of resources and the environment at large (ETP, 1994, p. 6). In addition, the strategic programs (ESDPs) emphasize making the curriculum relevant through by connecting learning and teaching to the learners' experience and environment (e.g., MOE, 2005, p. 35). They also advocate equipping graduates with relevant industry knowledge, up-to-date specialized skills, and work-ready attitudes to succeed in the world of work (MOE, 2015a, p. 110). The strategic provisions encourage institutions to create closer links with industries and other social sectors to boost cooperation, collaboration, partnership, and exchange (MOE, 2015a, p. 113).

More specifically, the 2009 proclamation clearly states that "the teaching and learning conditions in any institution shall, as far as practicable, create an enabling in-class and on-campus environment and encouraging atmosphere for students to learn" (Federal Democratic Republic of Ethiopia, No. 64, Article 41:1–4, p. 5006). The 2019 Proclamation requires HEIs to establish a collaborative relationship with industries and other institutions in pursuit of their mission (Article 9, No. 8, p. 11452). The recently adopted Ethiopia Education Development Roadmap 2030 also stresses the importance of organizing co-curricular activities and a practice-oriented teaching and learning environment (e.g., collaborative learning, placements, and internships) to promote learning beyond the classroom (MOE, 2018, p. 53). The 2020 HE policy and strategy documents clearly favor the design and implementation of diverse extra- and co-curricular activities. Under this framework, improving students' educational experiences and learning outcomes is considered essential to enhancing the quality and relevance of HE. Therefore, the policy, strategy, and regulatory frameworks give prominence to the organization,

integration, and delivery of on- and off-campus learning opportunities for students. It is crucial to note that engaging students in such learning experiences is considered essential to enhancing students' employability and life skills, industrial competencies, and work-ready attitudes.

As to existing academic programs, the undergraduate curricula reviewed in this chapter seek to integrate various forms of on- and off-campus educational experiences relevant to assisting in the development of academic, social, and work-related skills and competencies. However, the degree of emphasis varies from discipline to discipline. In addition, compared to behavioral and cognitive engagement, the development of students' emotional engagement (e.g., feelings of belongingness, excitement, and cohesion) is detached from academic curricula. The development of these characteristics was to be achieved through the advancement of SE in on-campus extra-curricular activities (e.g., participation in orientation programs, clubs, unions, and study circles).

The curricula also seek to integrate a number of off-campus learning experiences. Thus, various placement and apprenticeship programs, expressed in the form of SE in practical attachments and internships at public and private institutions, industries, schools, health centers, and other community centers are included in the curriculum. A statement from the curriculum for the B.Ed. in Physics captures the purpose of placing students in schools:

> The school experience refers to a situation where theory and practice are exercised concurrently. The trainees' learning in the classroom will be concurrently supplemented with practical experiences as they make visits to schools and observe traits in the whole system of learning and teaching. As a result, they will be expected to find out if there exists congruence between the theory and practice and attempt to identify and fill the gaps (BEd Physics Curriculum, 2019, pp. 12–13).

In the Physics curriculum, it is argued that competent teachers are created by their engagement in quality teaching placement or practicums. It also advocates the

organization of experiential learning that helps students prove consistency between theory and real-life practices. To this end, the curriculum calls for closer links and strong partnerships between universities and schools and between teacher educators in universities and expert teachers (mentors) in schools (p. 13).

Similarly, the BSc in Geography and Environment Studies curriculum (2013b) incorporates a range of field visits to enhance SE in off-campus learning experiences, while the BSc in Nursing curriculum (2014) calls for the implementation of a problem-based learning environment, which has direct application to the problems faced in real-life situations, whether in a hospital or in community nursing practice (p. 4). The BSc in Operating Theatre Nursing curriculum (2016) argues for the importance of creating various on- and off-campus learning experiences. The curriculum reasons that engaging students in off-campus learning experiences at, for example, health care service centers and community centers is essential to providing a community orientation in the curriculum. In addition, that approach offers useful learning experiences for the development of competencies that may not be adequately developed in a hospital setting, paves the way for the use of untapped resources, encourages active learning, and exposes students to patients who have not been seen by healthcare providers and to the broader healthcare system (Operating Theatre Nursing curriculum, 2016).

Respondents' reflections revealed a range of viewpoints. According to Respondent A, "universities are requested to engage their students in various extra-curricular activities (e.g., clubs) to enable them to develop their academic, social, and work-related competencies. Furthermore, the curriculum documents suggest the provision of various forms of enriching educational experiences" (Interview, July 16, 2020). Respondent C discussed the expectations placed on HEI to facilitate SE in on- and off-campus educational experiences:

Universities are expected to work closely with industry, technical and vocational colleges, research institutes, incubation centers, and the community at large to boost the development of work-related competencies and enhance students' employment opportunities. Universities are also expected to engage in innovative and creative teaching and learning practices. Part of this effort is placing students in industries and other practice-oriented teaching centers. Such learning experiences are considered imperative to make students familiar with the available technologies and to provide them with opportunities to apply the knowledge and skills gained in the classroom. (Interview, July 23, 2020)

Reflecting on AdU's practices, Respondent D indicates that both national and institutional QA policies and guidelines require all academic programs to engage students in enriching educational experiences. Accordingly, the university has devised various mechanisms to promote SE in on- and off-campus learning experiences:

AdU enrolls students from diverse social, cultural, linguistic, and religious backgrounds. In order to improve their social skills, the university heavily stresses the implementation of active teaching methods in classrooms and the provision of college-wide experiences that promote collaborative and cooperative learning. In addition, the university invests vast amounts to create a conducive environment for students to engage in university affairs. This includes launching indoor games and organizing recreational, competitive, and extra-curricular activities to encourage students to spend their time socializing with other students on campus. Moreover, the university organizes job-hunting schemes, internships, and practical attachments to promote SE in off-campus experiential learning opportunities and to students assess the employment opportunities in industry, banks, and the private and public sectors. (Interview, August 5, 2020)

According to this respondent, the university implemented separate strategies to address SE in on- and off-campus learning experiences, but both strands involved using a number of different mechanisms to advance students' classroom, college, and community engagement.

In engaging students in on- and off-campus educational experiences, the JU experience is exemplary compared to other HEIs. In an effort to boost societal engagement and its role in addressing wider community problems, the university made a strong commitment to CBE. To ensure the success of CBE, it introduced

CBTPs in all undergraduate and most graduate academic programs[5]. Though these programs were designed to enhance the visibility, sensitivity, and collaborative and partnership efforts of the university, the program was also considered a key strategy to promote SE in problem-centered off-campus educational experiences. To promote the effective implementation of CBTP, the university developed a comprehensive guideline that outlines the roles and responsibilities of students, teachers, university leaders, industry, and local community members (JU Guideline for Team Work Implementation, 2017). The key tasks involved in CBTP are identifying existing societal problems, prioritizing those problems, discussions with societal actors about the importance and ways of addressing the problem, and mobilizing resources to solve the problem in collaboration with the community. It is believed that such collaborative efforts will enable students to learn from the community and in the classroom.

It is essential to note the importance that the JU respondents attached to the impact of CBTP. They almost all discussed the role of CBTPs in improving SE and the development of specified academic, social, and work-related skills. For instance, Respondent E offered an extensive explanation on the what, why, and how of CBE and CBTP:

> To realize its core mission, JU designed an innovative way of integrating teaching, learning, research, and community services called CBE. To implement this, the university introduced CBTPs for undergraduate students on the principle of P−1. These programs are intended to integrate classroom teaching and learning with the actual problems of the community or with actual situations in the work environment. CBE is designed to give students the opportunity to practice the theories learned and to address societal problems. Apart from this, in undergraduate health science programs, there is a team training program designed to bring health professionals with different expertise to certain health centers and collaboratively address health-related problems. Moreover, there is a

[5] All undergraduate academic curricula at JU are required to integrate CBTP elements using the P−1 formula, where P stands for the duration of the academic programs in years. Consequently, an academic program with a duration of four years is required to include three CBTP courses (JU Senate Legislation, 2018).

developmental team training program designed for postgraduate students. This program is mandatory for all master's students enrolled in all disciplines. (Interview, August 3, 2020)

The reflections obtained from most respondents suggest that the implementation of CBE provided students with the opportunity to engage with a community-oriented teaching and learning environment.

However, a considerable number of respondents shared their concerns about a mismatch between the intentions (policies, proclamations, and curricula) and the actual practices observed. For instance, Respondent A stated that a "lack of properly engaging students in enriching educational activities contributed to the deterioration of learning outcomes and the quality of education in Ethiopian HEIs" (Interview, July 15, 2020). In explaining this claim, the respondent stated the following:

Students do not have sufficient opportunities to engage in enriching educational experiences. Courses offer limited opportunities for students to engage in service learning, internship, field experience, and participation in the learning community. Never mind creating such direct experience opportunities; courses do not even offer simulated experiences in teaching episodes when the necessary resources are unavailable or difficult to access. (Interview, July 15, 2020)

Respondent A also noted that there are observable institutional and disciplinary variations in the level of SE in on- and off-campus educational experiences:

Compared to other generations, first-generation universities attempt to provide first-hand learning experiences by strengthening their laboratories, workshops, and simulated environments. A few universities also attempt to use locally available resources to promote SE in enriching educational activities. The nature of the discipline also matters. For instance, a computer science student can install applications and programs on various devices that will enable him or her to actively engage in developing, modifying, and improving software, programs, and applications. However, engaging Electrical, Civil, or Mechanical Engineering students in first-hand experiences might not be easy due to the limitations of workshops in the most recently established universities. (Interview, July 15, 2020)

Even when universities attempt to develop different forms of on- and off-campus learning experiences (e.g., practical attachments, internships, and placement

opportunities), a lack of essential educational resources and facilities hinders the effective implementation of even the best intentions. In addition, various institution-, student-, and instructor-related factors contribute to the limitations observed. In support of this view, Respondent A noted the following institution- and student-related challenges:

> Even if university students are placed in industry to undertake internships or apprenticeships, they are not working as intended. Companies do not allow students to work with the machines for fear the machinery will be damaged. Furthermore, students go to industry only to sign an attendance sheet rather than spending a significant amount of time engaging in practical learning and developing the required competencies. (Interview, July 15, 2020)

Similarly, Respondent C shed light on the existing practices by comparing them with experiences observed elsewhere:

> In Ethiopia, when students are placed in industry, companies do not provide many opportunities for students to engage with the machinery out of fear that the machines might be broken. Their insurance will not cover the damages caused by university students. Hence, graduate students should not be blamed for lacking practical knowledge and skills. (Interview, July 23, 2020)

For Respondents E and K, the problem emanates from a shortage of financial resources allotted to facilitating SE in off-campus educational experiences. Compared to other disciplines, Engineering and a few hard science disciplines take the lion's share of the funding allotted to field experiences and other forms of placement opportunities. Accordingly, not all students have the chance to engage in off-campus educational experiences. Respondent E discussed this imbalance as follows:

> In the former curriculum, SE through internships and field experiences was common in many undergraduate programs. Recently, however, a direction from MOSHE has limited the budget allotted to social sciences, natural sciences, and humanities students' placement in internships and field visits. This forced departments to use simulated experiences, video presentations, and other technology-assisted presentations as an alternative to engaging students in real-world off-campus experiences. (Interview, August 3, 2020)

Sharing this view, Respondent K stated the following:

> In previous times, practicum courses were offered to help students gain school-based teaching experiences. In addition, applied science students used to engage in internship programs. Recently, however budget shortages and security concerns have limited the effective implementation of internship programs, which is leading departments to stop engaging students in such learning platforms. (Interview, August 5, 2020)

These remarks reveal that the integration of on- and off-campus educational experiences is considered to play a salient role in assisting the development of students' academic, social, and work-related competencies. The integration of such enriching educational experiences enables students to test the theories they have learned in real-life practical situations. Moreover, promoting students' community engagement is viewed as offering students a unique educational experience that allows them to learn from the community. This enables students to value and appreciate the richness of local and Indigenous knowledge and experience. However, several institution-, instructors-, and student-related factors are undermining the organization and provision of effective placement, internship, and apprenticeship experiences. As a result, the experience students receive from their engagement in such practical episodes is not enabling them to develop the skills and competencies they will need in the world of work. Moreover, students in the social sciences and humanities have few off-campus learning opportunities because of financial constraints. This limits SE in hands-on educational experiences and thus students' development of work-related skills and competencies.

5.2.5.2   The role of SE in enhancing student achievements and outcomes

The emphasis placed on students' achievement of desired learning outcomes plays an important role in promoting the development of students' academic, social, and work-related skills and competencies. Promoting students' learning outcomes needs to be prioritized when setting the mission, goals, and objectives of HEIs. SE

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research has suggested a number of proximal and distal consequences of actively engaging students in decision-making, teaching, learning, and assessment processes. SE can increase students' learning gains and CGPAs and bolster their achievement of higher-order thinking skills (e.g., Coates, 2005; Kahu, 2013; Kahu & Nelson, 2018; NSSE, 2020). Based on this premise, the present study explores the emphasis in HE and QA policies, processes, and practices on improving the quality of students' learning outcomes.

From the document review and interview transcripts, it is clear that enhancing students' learning achievements and outcomes has long been emphasized, especially in recent policy and strategy recommendations (MOE, 2018; MOSHE, 2020). It appears that the wider national level HE policy, strategy, and regulatory frameworks emphasizes the achievement of broader results such as the development of academic, economic, sociocultural, political, environmental, and scientific outcomes (e.g., ETP, 1994; HE Proclamation, 2009, 2019; MOE, 2015a, 2018, MOSHE, 2020). At the same time, institutional-level QA policies, strategies, undergraduate curriculum documents, and legislative frameworks detail the generic and specific KSAs students are expected to develop and set performance standards that students are expected to meet. To advance the quality of student learning and their achievement of the expected competencies and the predetermined educational outcomes, the successful implementation of active, experience-centered and outcome-based teaching, learning, and assessment processes is considered invaluable.

Respondents were also asked to reflect on the extent to which the existing structures and teaching, learning, and assessment environment emphasized enhancing the quality of student learning and achievement. Though all respondents suggested that students' achievement of expected competencies and outcomes is a focus of national and institutional QA policies, curriculum frameworks, and teaching, learning, and assessment practices, they also pinpointed a number of

factors affecting those goals. For instance, Respondent M indicated, "the existing QA policy and guidelines emphasize producing high-achieving, competent, entrepreneurial, and socially responsible graduates. In addition, the curriculum and course objectives incorporate a mix of higher- and lower-order learning outcomes" (Interview, August 9, 2020). Respondent O argued that much has been done to improve the quality of instructional processes, student achievement, and graduate outcomes in Engineering:

> The implementation of QA guidelines and procedures has tremendously improved the quality of instructional processes, which has contributed to the development of students' academic, social, and work-related experiences and competencies. Our graduates are in demand by the world of work; they have succeeded in establishing better social interactions and innovating technologies. The previous tracer study conducted by the university and the institute revealed that 70%–75% of our institute's graduates were employed and that their employers praised their competence. In addition, they have competed in and won several national and international competitions. They demonstrate their competence at work place by creating effective ways of doing things and designing and producing new technologies that help meet the health and agricultural needs of the community. (Interview, August 13, 2020)

Focusing on the learning outcomes stated in health sciences curricula, Respondent I stated, "I can say that the learning outcomes in the existing curriculum are balanced. It incorporates low-, medium-, and high-level objectives. It also ranges from the simple level to analytical, creative, and critical thinking objectives" (Interview, August 5, 2020). These reflections indicate that the HE and QA policies, strategies, and proclamations, including curricula, emphasize supporting students' achievement of higher-order learning outcomes and general learning achievement, along with the attainment of graduate outcomes.

A few respondents stressed the role of students' enrollment characteristics and the integration of CBE into academic programs as the key elements for advancing the achievement of students' learning outcomes and the development of academic, social, and work-related skills and competencies. For instance, Respondent N

outlined the importance of a student's academic background in bolstering his or her achievement of expected learning outcomes:

> So far, students with relatively better scores on university entrance examinations choose to enroll in the Geography Department. Therefore, the graduation rate, performance, and achievement level of students in our department is very good. For instance, over the last three years, the CGPAs of our graduates were 2.5 and above. Moreover, their employment opportunities are relatively good. The department conducts needs assessments to open new graduate programs in various areas of specialization. One analysis revealed that most of our top performing graduates are employed in universities as graduate assistants, as secondary school teachers, and as experts in different organizations. (Interview, August 10, 2020)

On the other hand, Respondent E argued that the design and integration of practical and problem-centered educational experiences played a significant role in promoting student achievement and graduate outcomes:

> The result of the tracer study we conducted indicated that the integration of CBE into teaching, learning, and assessment practices has played a tremendous role in developing our graduates' academic, social, and work-related competencies. In addition, our graduates were found to perform well in their work areas when compared to graduates from other universities because of their engagement in CBE experiences. (Interview, August 3, 2020)

Respondent F reiterated the claim that the successful implementation of practical and community-oriented educational experiences was essential in assisting students to meet the established curriculum, professional, and graduate benchmarks:

> The philosophy we follow really helps us a lot in producing competent graduates. Their engagement in CBE enable them to develop competencies essential to succeed at work and in society. Therefore, the CBE opportunities we created for our students are considered the main factor that enable the university to promote the development of students' academic, social, and work-related skills and competencies. (Interview, August 13, 2020)

Focusing on students' achievements in national and school-level examinations, Respondent G argued that the university's graduates outperform others in terms of CGPAs and qualification examination scores. It is interesting to note that the

respondent tended to associate this performance difference to the integration and provision of effective CBE programs:

> The performance of our college students, as measured by CGPAs and national-level exit examination passing rates, is greater than students who graduated from other universities. Law school graduates continuously outperformed other students on the national exit examination. As to the achievement of higher-order learning outcomes, it differs from department to department. For instance, law school students are exposed to various practical teaching experiences that enable them to develop the required professional competencies. Meanwhile, students from Development Studies and Governance usually deal with conceptual and theoretical information, which enables them to develop higher-order critical thinking skills. However, when we assess their senior projects and culminating experiences, we can only say that they are doing okay. (Interview, August 6, 2020)

Apart from promoting students' academic performance, Respondent G also noted the importance of SE in enriching and practical educational experiences in promoting the achievement of higher-order learning outcomes. Sharing this point of view, Respondent H stated the following:

> Compared to graduates from other law schools, our graduates seem to perform well on national examinations. Though there is no formal evaluation as to the achievement of higher-order learning outcomes, we observe students in the classroom and their performance on various analytical and evaluative questions. Most courses require students to engage in solving cases and the application of the different knowledge and skills they have gained. They are eloquent in their speech, well organized in their arguments, and confident in their appeals. (Interview, August 6, 2020)

Respondent H's reflection indicates that the courses offered and classroom teaching practices encourage students to engage in deep learning. However, the assessment of the achievement of higher-order learning outcomes relies only on indirect and anecdotal evidence.

Not all respondents shared these views. Although improving student achievement and graduate outcomes is frequently cited in various institutional HE and QA policies, strategies, and curricular frameworks, several factors are undermining the successful implementation of these aims, which in turn hinders

the achievement of the desired educational outcomes. Reflecting on nursing students' achievement, Respondent J stated the following:

> Our assessment indicated that students' performance level can be said to be average. The exit examination results indicate that some students failed, while most received an average score. Students' performances on the license examination was lower three years ago but is now improving. (Interview, August 5, 2020)

When asked to justify this claim, the respondent cited the following curriculum-, assessment-, and teacher-related reasons:

> The curriculum objectives do not emphasize the achievement of higher-order learning outcomes. The emphasis given to the development of higher-order thinking levels such as analysis, evaluation, and creativity is low. The exit examinations also stress the assessment of lower-level thinking objectives such as remembering, understanding, and applying. Teachers also lack the required competencies to assist students in attaining higher-order learning outcomes. (Interview, August 5, 2020)

Respondent K questioned the teacher recruitment policy, which relies heavily on CGPAs rather than mastery of subject matter knowledge and communication and didactic skills and competencies:

> When we recruit teachers for the college, it is common to find a student with a CGPA of more than 3.8 but who is unable to communicate effectively when asked subject matter-related interview questions. The CGPAs earned by students do not match the knowledge, skills, and competencies they demonstrate. This was not common a decade ago. This issue has to be carefully investigated. (Interview, August 5, 2020)

Citing the reasons for the incompetence observed, Respondent K added:

> The assessment and evaluation procedures do not examine the achievement of higher-order learning outcomes. There is a tendency to measure simple factual knowledge and understanding. In the hard science undergraduate programs, the evaluation might include application-level questions with little attention given to analysis, evaluative, and creative questions. Teachers' lack of competence and expertise in designing teaching methods, constructing examinations, and applying assessment procedures that consider thinking levels is also a key reason. Therefore, students graduate without meeting the expected goals. (Interview, August 5, 2020)

Similarly, Respondent M argued that "the students' academic and job-related performance is not encouraging and is deteriorating over time. Generally, the overall CGPAs students get do not reflect their overall competencies" (Interview, August 9, 2020). Taking an opposite position, Respondent L stressed student-related problems, with the major problem related to the lower enthusiasm, commitment, and motivation demonstrated by the majority of students:

> The learning outcomes stated in the program curriculum include higher-order learning objectives across all three domains of learning outcomes. However, enabling students to achieve these outcomes is often neglected. Teachers attempt to create a learning environment where students can perform tasks in groups and in laboratories. However, efforts to stimulate students to expand their learning horizons beyond the classroom, the lab, and the campus are limited. A few students, however, do take the initiative to enhance their achievement and take the initiative to support other students and schools. (Interview, August 7, 2020)

Rather than identifying a specific problem, Respondent N referred to a number of factors that are affecting the achievement of higher-order learning and graduate outcomes:

> It is difficult to suggest that we are producing analytical, critical, and creative graduates. Various factors influenced students' achievement of higher-order learning outcomes. The existence of a content-loaded curriculum, intensive block delivery, teacher-centered teaching. and learning and limited practical sessions have all contributed to the observed limitations. (Interview, August 10, 2020)

Similarly, Respondent O raised the limitations observed in the adequacy of instructional resources provided to promote effective teaching and learning processes:

> The achievement of higher-order learning outcomes depends on the existence of essential learning resources and the implementation of student-centered and practice-oriented teaching and learning process. Currently, the university is improving the teaching labs and workshops to promote practice-oriented teaching and students' achievement of higher-order learning outcomes. However, much needs to be done to reach the quality standards set by the institute. (Interview, August 13, 2020)

The respondent's reflection suggests that the failure to properly implement engaging and enriching instructional processes and a shortage of required instructional resources have affected the university's effort to promote the achievement of higher-order learning outcomes and the development of social and work-related competencies.

These reflections show that the HE and QA policies, strategies, proclamations, and curricular intentions envision producing graduates with the essential cognitive, emotional, social, and job-related skills and competencies. However, the achievement of these goals has been negatively affected by curriculum-, teacher-, student-, and resource-related problems. Specifically, a lack of emphasis on the achievement of higher-order learning outcomes, the failure to implement effective assessment and evaluation processes, and teachers' poor pedagogical skills all hamper the development of competencies essential to succeed in the world of work and society.

5.2.5.3   Emphasis on enhancing students' employment opportunities

One of the objectives of HE is to supply a skilled labor force for the market. To achieve this, universities are mandated to align their academic programs with current and foreseeable employment opportunities. They are expected to promote the development of job-specific skills and competencies by devising strategies that enable students to engage in seeking, accessing, and obtaining employment opportunities. Based on this line of argument, the existing national and institutional HE and QA policy, strategy, and curriculum documents were examined to assess the extent to which creating employment opportunities was emphasized. In addition, respondents were asked to reflect on the extent to which work-focused experiences are integrated into the actual curricular, teaching, and learning environments.

As to the policy and strategic provisions, the overall conclusion is that there are limitations in fostering the development of students' work-related skills. The problem emanates from a lack of properly implementing previous policy intentions (MOE, 2018; MOSHE, 2020). For instance, ESDP III noted the importance of making the curriculum relevant by connecting learning to the learner's experience and work environment (MOE, 2005, p. 35). ESDP IV suggests improving the teaching and learning process, increasing students' interpersonal growth, and improving their employability through providing a quality education (MOE, 2010a, p. 64). ESDP V gives unparalleled importance to equipping graduates with relevant industry knowledge, up-to-date specialized competencies, and work-ready attitudes that will enable them to succeed in the world of work, industry, and research. In addition, creating closer slink with industry and other social sectors to boost cooperation, collaboration, partnership, and exchange is emphasized (MOE, 2015a, pp. 110–113).

Despite these grand visions, the Ethiopia Education Development Roadmap 2030 (MOE, 2018) raised the issue of the failure to develop life skills and entrepreneurial capabilities as one of the major factors affecting the quality of students' learning and the development of work-related competencies (p. 52). To address this problem, the roadmap recommends, among other initiatives, the implementation of co-curricular activities, collaborative projects, and workplace learning initiatives (MOE, 2018, p. 53). The 2020 HE policy and strategy prioritizes making curricula and academic programs responsive to social and national demands founded on development and labor market needs and the aspirations of the country. To this end, the design and implementation of HE curricula and academic programs are required to produce graduates equipped with theoretical knowledge, practical skills, psychological maturity, social responsibility, and economic self-reliance. In addition, HEIs are expected to produce graduates who

are intellectually competent and can effectively communicate, rationally debate, and live in a morally and ethically upright manner (pp. 18–20). From a policy and strategy point of view, then, HEIs are lagging in enabling students to develop the skills and competencies relevant to succeed in seeking, accessing, and obtaining employment. The policy and strategic discourses question the role that HEIs are playing in devising and implementing effective strategies to foster the development of work-related skills.

The respondents' reflections largely accord with that conclusion. However, they also indicate that the problem is not as simple as it may appear. They touch on the potential of the economy, the relevance of the curriculum, and disciplinary variations in terms of creating employment opportunities. For instance, Respondent C argued that "there is variation between available job opportunities and the number of graduates produced from HEIs. Besides, the economy's ability to create more jobs and the existing institutional capabilities to foster students' entrepreneurial capabilities are limited" (Interview, July 23, 2020). On the other hand, Respondent E raised the issue of launching academic programs without carefully examining the existing market for employment opportunities: "Most of the existing undergraduate curricula lack relevance and their launches did not consider the existing job opportunities for graduates" (Interview, August 3, 2020).

A few respondents suggested that differences in disciplines and students' performance in exit examinations contributed to the observed differences in graduates' employability. In this regard, Respondent J said, "students who performed well on the Certificate of Competence and exit examinations were employed immediately. Furthermore, the Nursing and Midwifery programs have wider employment opportunities" (Interview, August 5, 2020). Respondent K noted that "access to jobs and employment opportunities is limited compared to the number of graduates we are producing every year. This is affecting the quality

of the student experience, graduate outcomes, and the quality of education" (Interview, August 5, 2020).

The failure to effectively implement previous HE policy and strategic intentions, the failure to design relevant curricula, and limitations in creating diverse off-campus work-related educational experiences all negatively influence graduates' employability rates. More broadly, the limited number of employment opportunities for graduates is connected to an underdeveloped economy and low private sector investment, the failure to design curricula that consider current and foreseeable skilled labor demands, and the failure to develop students' entrepreneurial capabilities and work-ready attitudes all affect the employment opportunities available to graduates. This in turn influences the quality of educational experiences provided for students, limiting their motivation to perform well and achieve the expected learning outcomes. This again influences the efforts made to transform SE and the development of students' academic, social, and work-related skills.

5.3   Enabling conditions to enhance SE in Ethiopian HEIs

Engaging students in the teaching and learning process requires the establishment of the necessary structures, support systems, resources, and infrastructures. The creation of such enabling conditions relies heavily on the commitment of both university leadership and the teaching force. To assess the extent to which HEIs have attempted to create a conducive environment for students to engage in the teaching, learning, and decision-making process, existing HE and QA policies, strategies, and practices were examined. In addition, respondents' reflections on actual practices were explored. The following sections detail the results of that review.

5.3.1   Existing structural arrangements and student support systems

Following the introduction of decentralized management systems and a shift from largely teacher-dominated instruction to student-centered pedagogy in Ethiopian education policy and strategic discourses (MOE, 1994), HEIs were expected to establish relevant structures to promote and support SE in the decision-making process and in on- and off-campus educational experiences. Accordingly, national and institutional HE and QA policy, strategy, and regulatory frameworks mandated universities to establish student unions, involve student representatives from the department-level through top-level management decision-making echelons, engage students in extra-curricular activities by establishing clubs (e.g., science, environment, culture, music) and organize collaborative learning platforms (e.g., student networking and study groups with one to five members). Institutions were also required to design effective student support systems (e.g., guidance and counselling, tutorial classes). The establishment of these support structures was considered essential for providing students with diverse and enriching academic, social, and off-campus experiences. In addition, the design of these platforms was aimed at fostering students' interaction, cohesion, and belongingness and their development of work-related skills and competencies.

To explore the extent to which these policies and strategic intentions were actually implemented, respondents were asked to reflect on the existing practices in their universities. Their reflections suggest that universities are doing their best to create the necessary structures and support systems to advance SE in decision-making processes, in the teaching and learning process, and in on- and off-campus educational experiences. The similarities of the discussants' reflections across colleges and departments indicates that the case Universities are at least trying to implement the uniform strategies mandated by MOSHE and HERQA. Part of the

reason is related to the changing expectations, roles, and responsibilities of stakeholders, teachers, and students in HEIs, as Respondent E stated:

> Enhancing SE is not the responsibility of the students alone but the responsibility of the government, the ministry, stakeholders, the university board and management, the teachers, and the community at large. The importance of engagement needs to be internalized throughout the system. To promote engagement, therefore, much has to be done to improve the awareness and competence of all involved in teaching, learning, research, and administrative services. To achieve this, gradual transfer of responsibilities from the teacher to the student in the teaching and learning process is essential. Various trainings should be provided to both teachers and students on the changing expectations, roles, and responsibilities, the shift in learning paradigms, and the changes in teaching, learning, and assessment methodologies. (Interview, August 3, 2020)

This paradigm shift reinforced the need to devise support systems and structures aimed at fostering SE in the teaching, learning, and administration of HEIs.

Examining existing practices shows that colleges, schools, and departments have devised and implemented a number of strategies. For instance, Respondent G offered a broader explanation of the structures designed to enable the engagement of College of Law and Governance students:

> Students are engaged in their learning through established structures. One female and one male student is chosen from each cohort to engage in major decisions made at the department, college, and university levels. A number of student organizations also exist. For example, the Student Union plays a salient role in representing students' concerns and views in the University Senate. At the classroom level, teachers are encouraged to implement active, participatory teaching and learning strategies. The implementation of these approaches is assessed continuously. At the community level, CBE is playing a tremendously important role in promoting SE in society. (Interview, August 6, 2020)

Similarly, Respondent M stated the following:

> Structurally, students are represented from the University Senate to the department level. Using these platforms, they engage in administrative issues and academic matters. In addition, there are student representatives selected from every classroom. They engage in auditing class progress and present their concerns and problems to their department heads and college deans. The college also organizes semester-based meetings to discuss and address students' academic and non-academic concerns. Music and theatrical arts students engage in

presenting concerts and shows to the campus and surrounding community. (Interview, August 9, 2020)

Focusing on students' role in the instructional process, Respondent J stated that "student representatives engage in monitoring the teaching and learning processes (e.g., the status and progress of course delivery, completion, and coverage), in developing class schedules, and in assigning teachers" (Interview, August 5, 2020). Respondent K indicated that, through these platforms, students can "voice their concerns, challenges and problems" (Interview, August 5, 2020). Similar reflections on the support structures were offered by the other respondents.

However, College, Faculty and School level structures do not appear to value student input in making decisions. This claim was made by Respondents G and J. According to Respondent G, "few experiences exist in relation to using students' input in essential decisions of the college or department" (Interview, August 6, 2020). Similarly, Respondent J argued that "SE at the faculty and institute level structures is low. However, at the department level, student representatives play a salient role in serving as a bridge between the school and students" (Interview, August 5, 2020). In doing so, students can go to the faculty or the institute directly to present issues that they think were not properly addressed at the school or department levels. Colleges and departments engage student representatives or the entire class in times of crisis and students' unrest.

Universities also provide a range of support aimed at enhancing students' academic performance, learning achievement, and outcomes. Regarding this, Respondent F stated, "part of the QA process, poorly performing students, female students, students with various forms of disabilities, and students coming from emerging regions are supported by organizing additional tutorial classes and providing essential educational resources" (Interview, August 13, 2020). In addition, universities have created awards (e.g., scholarships, other financial support) for their high-performing, innovative, and creative students. They have

also established structures aimed at fostering students' classroom, on-campus, and off-campus engagement and academic performance. This structure was intended to create a collaborative learning environment for both teachers and students. The respondents' remarks clearly elaborate the intent of the support structure. For instance, Respondent K stated the following:

> Structure-wise, one–five student networking was established to promote students' academic engagement inside and outside the classroom. This platform was created to enable students to support each other and to improve their academic performance and social skills. (Interview, August 5, 2020)

Similarly, Respondent L stated the following:

> The department attempts to enhance students' academic performance by identifying low-performing students every semester, organizing special tutorial classes, and providing material supports. In addition, the department motivates innovative and creative students to engage in space science initiatives. It also creates a platform to present their senior project work and compete for college- and university-level awards. (Interview, August 7, 2020)

Reflecting on AdU practices, Respondent D indicated that, apart from engaging students in decision making at all levels, AdU "has established guidance and counselling services to help students adapt to the campus environment and cope with personal and academic related challenges" (Interview, August 5, 2020).

However, respondents also noted limitations associated with existing student support structures. Perception, skill gaps, and implementation-related challenges are affecting the achievement of expected outcomes. For instance, Respondent K reflected that "the negative political connotation attached to one–five student networking affected its successful implementation. A lack of proper monitoring and evaluation resulted in students' overdependence on better-performing students for assignment and project work" (Interview, August 5, 2020). Respondent E argued that a failure to internalize current trends and developments in student support and changing expectations, roles, and responsibilities in regard to

leadership, teaching, and learning have all negatively influenced the effective implementation of the various support schemes (Interview, August 3, 2020).

Overall, there is overwhelming empirical evidence that establishing student support structures aimed at advancing SE in HEIs is essential to bolstering the development of students' academic, social, and work-related skills and competencies. As the preceding discussions indicate, the case public and private universities were all attempting to implement strategies intended to boost SE in decision making and the management of teaching and learning process. In addition, various schemes were implemented to enhance SE in academic and non-academic activities. Still, several factors challenged the successful implementation of these strategies.

5.3.2   The role of governance, leadership competence, and commitment

Effective and efficient governance and leadership environment plays a vital role in improving students' outcomes and the quality of HE. The 1994 ETP clearly stipulates the role of governance and management in improving the quality of education at all levels (MOE, 1994, pp. 29–30). In addition, the 2020 Higher Education Policy and Strategy closely ties the effectiveness of HE leadership with improved performance in teaching and learning, student outcomes, and research project outcomes (MOSHE, 2020, pp. 30–31). Centering on this point, the implementation of a decentralized governance system and democratic leadership style was suggested as a means to enhance institutional autonomy and academic freedom in HEIs. In addition, the realization of these policy and strategic premises relied on the existence of qualified and committed leaders.

The respondents' reflections on the role of governance and leadership in promoting SE, improving the quality of students' learning, and student outcomes covered a wide range of views. Some respondents criticized the existing

governance and leadership environment by pinpointing senior management's lack of leadership competence and commitment in affecting the quality of student learning and outcomes. Others focused on detailing the nature of the HE governance and leadership environment required to promote SE, learning achievement, and graduate outcomes. These two opposing views are presented below.

In the first category, Respondent I reflected on the challenges facing the leadership environment and their impact on efforts to enhance student outcomes and the quality of learning experiences:

> The leadership environment really matters in improving the efficiency and effectiveness of teaching hospitals. I feel that the deterioration of the quality and competence of our graduates might be related to a change in leadership structure. Formerly, all health science colleges were managed and led by the Ministry of Health. That enabled students to obtain quality practical teaching experience supported by professional workers in the health sector. MOSHE is reconsidering its change in leadership structure to promote a sense of ownership and improve leadership practices. (Interview, August 5, 2020)

It is essential to note that the existing structural problems—directing health education from two ministries—contributed to the inefficient and ineffective leadership practices observed in health science education. Respondent I also extended the challenges facing the leadership, this time by reflecting on managerial competence, motivation, and commitment and their impact on student outcomes:

> At the national level, the commitment and motivation of leadership is low. The leadership environment is not yet ready to make decisions and take actions based on available empirical evidence. The effective implementation of policies and guidelines requires an integrated effort by the vertical and horizontal leadership at all levels. For me, leadership is the key. As to the deterioration in the quality of education, leadership's role is significant. The knowledge, skills, experience, and commitment of leaders are essential to improving the efficiency and effectiveness of health education. (Interview, August 5, 2020)

The above reflection makes clear that a lack of effective and efficient governance and leadership influences the effort universities have made to improve the quality

of student learning and outcomes. In addition, a lack of leadership competence, motivation, and commitment has impeded the successful implementation of HE and QA policies and guidelines.

The second group of respondents highlighted the observed limitations in HE governance and leadership practices and detailed what should be done to improve the governance and leadership environment. For instance, Respondent E noted the failure to make the issue of SE the responsibility of all and have it take center stage in HE governance and leadership discourses: "Enhancing SE is not the responsibility of the students alone but the responsibility of the government, the ministry, stakeholders, the university board and management, the teachers, and the community at large. The importance of engagement needs to be internalized throughout the system" (Interview, August 3, 2020). In addition, noting a lack of emphasis on the issue of student achievement and SE in on- and off-campus learning experiences, Respondent D suggested the need to place SE and achievement at the heart of HE leadership policies and practices:

> Everything we do and the service we provide should focus on our students. We should always ask ourselves, "Do our students achieve the intended outcomes?" Their engagement in on- and off-campus experiences should be given priority. Creating conducive a teaching and learning environment and providing qualified and motivated staff should be given proper attention in policy and strategic discourses. (Interview, August 5, 2020)

Taking a broader perspective, Respondent N attributed the observed gaps in governance and leadership to a lack of considering diverse views and opinions in formulating and implementing governance and leadership policies and strategies:

> The policymaking environment should actively involve essential stakeholders and listen to different voices. The policy framework can be drafted centrally; however, the detail work should involve universities, colleges, and departments at all levels. This will improve the sense of ownership of and commitment to policy implementation, and ultimately its success. In addition, departmental responsibilities should emphasize working on achieving their targets and objectives. (Interview, August 10, 2020)

Similarly, Respondent I discussed the impact of centralizing HE and QA policy and strategic formulation process on the sense of ownership and commitment among key actors:

> There is a centralized and top-down policy-making environment. This has hindered the active participation of all stakeholders, affecting their sense of ownership and their commitment to implement the policy as intended. In addition, universities consider departments to be the sole implementing bodies. Therefore, they attempt to force departments to implement policy intentions without question. This leads to a lack of enthusiasm and commitment to implement the intended policy objectives. In addition, departments are already busy with handling daily routines rather than focusing on achieving strategic objectives. This influences the development of students' academic, social, and work-related competencies and outcomes. (Interview, August 5, 2020)

Focusing on the nature of the HE and QA policymaking approach, Respondent F indicated the challenges posed by centrally promulgated laws and regulations:

> I don't think we are working towards establishing structures and capacities that lead universities to achieve their goals effectively. Rather than waiting for guidelines from the ministry, universities need to come up with QA policies, strategies, and guidelines that lead them toward excellence. The role of the government should be ensuring that universities are accountable for their performances rather than focusing on regulatory schemes. Universities should be allowed to initiate and develop structures relevant to their circumstances. Therefore, existing structures do not fully involve or engage students at all levels. (Interview, August 13, 2020)

The centralized policymaking environment and the observed tendency to shift the burden to departments is affecting the effort departments make to improve student learning and achievement. In addition, Respondent G claimed that lower-level management, such as departments, lack the "capacity to cascade the strategic plan in detail and to implement goals and objectives effectively and efficiently" (Interview, August 6, 2020).

Respondents A, C, and others all discussed the limitations of existing governance and leadership structures and processes in addressing SE issues. Respondent C argued that "governing bodies such as MOSHE and the parliament

emphasize allocating human, material, financial, and infrastructural resources" (Interview, July 23, 2020). Respondent A stated the following:

> HESC, a policymaking and strategy-crafting entity, emphasizes developing the capacity of HE leaders and identifying problems in the education system, studying these problems, and suggesting policy and strategy interventions that regulatory bodies and implementing institutions could use to improve current practices. In addition, the agency organizes several capacity development trainings for HE leaders. (Interview, July 15, 2020)

Respondents also claimed that the existing HE governance and leadership does not promote cooperation and mutual benefits for industry, agencies, and organizations that support the implementation of internships and practical attachments. In this regard, Respondent C's reflection is especially quotable:

> Our policy should address the counter-benefits and supports industry receives for letting university students access their resources and for successfully engaging students in practice-oriented teaching. Such benefits may include tax deductions and free short- and long-term training for employees. Moreover, universities should also develop a mechanism through which they employ professionals and practitioners from industry to support the teaching and learning process in universities. (Interview, July 23, 2020)

The university–industry linkage and HE governance and leadership system appear to be unidirectional. The centralized leadership and policymaking process greatly hampers institutional autonomy, staff commitment, and the sense of ownership needed to realize the goals and objectives that have been established. In addition, the limited role that industry plays and the absence of measures that promote mutual benefits have a downside effect on the quality of work-related experiences developed by students. This contributes to their lower mastery of the skills and competencies essential for succeeding in the world of work. Moreover, it leads to the inefficient and ineffective use of resources.

The recent policy changes in HE governance, leadership, and structures and undergraduate curricula reflect the efforts made to address the limitations of

previous policies, strategies, and practices. Respondent C's reflection summarized the changes:

> In order to enable students to successfully complete the qualification and accreditation standards, the number of years to complete a bachelor's degree in all disciplines was changed from three to four years, from four to five years (Engineering and Law), and from six to seven years (Medicine). In addition, the content, learning experiences, and amount of instructional time built into undergraduate curricula were evaluated for relevance, appropriateness, and quality. Based on the suggestions for improvement, every undergraduate curriculum is now undergoing revision. (Interview, July 23, 2020)

Taking a different stance, Respondent M proposed broader policy, curriculum, governance, and societal changes that are considered essential to producing competent graduates:

> Producing competent graduates requires effective policies, strategies, and systems. It requires the efficient use of existing human, financial, and material resources. Accordingly, the QA policymaking and strategy-crafting environment, the structural arrangements, and the institutional processes all need to find ways to enhance students' motivation for and interest in learning and exerting the effort to achieve more. In addition, the curriculum-making environment should value, respect, and integrate existing Indigenous knowledge and practices to enhance the relevance of education to students' actual, real-life experiences and contexts. This will improve students' sense of ownership and responsibilities for themselves and their society. Moreover, the value given to education, hard work, and respect for ethical morality and civic principles should be enhanced. To this end, MOSHE, universities, other stakeholders, the media, and society at large need to work collaboratively. (Interview, August 9, 2020)

As discussed above, the 2020 HE policy and strategy closely tied the effectiveness of HE leadership to performance in teaching and learning, improvement in student learning outcomes, and improved research project outcomes. To address the limitations observed in HE leadership and governance, the implementation of a decentralized governance system and democratic leadership style needs to be strengthened. The strengthening of this system can enhance institutional autonomy and academic freedom. In addition, the realization of these policy and strategic premises depends on the existence of qualified and committed leaders.

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Accordingly, the observed gaps in leadership competencies need to be addressed to improve the efficiency and effectiveness of putting the mandated strategic priorities into effect. The ongoing curricular reforms and efforts to strengthen the role of industry and other private and public institutions indicate a commitment to promoting mutual cooperation in the effort to produce competent graduates. Overall, improved leadership and governance contributes to better accountability and responsibility, which play a crucial role in improving the quality of students' experiences and achievements.

5.3.3   Instructors' commitment and teaching competence

Numerous studies have revealed the importance of instructors' teaching competence and commitment in promoting SE and the achievement of desired learning outcomes. The professional knowledge, skills, and values instructors demonstrate and the amount of time and effort they expend to improve students' learning, achievement, and graduate outcomes all play an important role in enhancing the quality of education at all levels. Noting such importance, national HE and QA policies have proposed and implemented various human resource development strategies, aimed at enhancing staff qualifications and pedagogical and linguistic competences. Consequently, the number of academic staff holding doctorates and master's degrees has increased tremendously, leading to an increased number and diversity in academic programs, improved instructor–student ratios, and improved research supervision in HEIs.

Nevertheless, the poor teaching competence of HE instructors and researchers is still cited as one reason for the declining quality of students' learning and their achievement of the desired outcomes in Ethiopian HEIs (MOE, 2018; MOSHE, 2020). As this is a major policy priority area, the present study examines the extent to which instructors' commitment and teaching competence have contributed—or

failed to contribute—to SE and achievement of outcomes. Accordingly, the following reflections and observations were made from documents and participant interviews.

All respondents acknowledged the importance of instructors' commitment and competence to enhancing teaching, learning, and assessment practices. For instance, Respondent I argued that "the quality of assessment and feedback practice is dependent on the skill and attitude of instructors" (Interview, August 05, 2020). Similarly, Respondent G stated the following:

> The motivation, commitment, and capacity of teachers, staff-university relationships, academic freedom, and institutional autonomy are all critical to influencing the quality of teaching, research, and community service provisions. (Interview, August 6, 2020)

The importance of competent and committed instructors was discussed by most respondents, and most of their reflections suggested that most instructors lack the zeal, commitment, and competencies required to deliver quality instruction. Respondent I claimed that "at the national level, the commitment and motivation of leadership and academic staff is low" (Interview, August 5, 2020). Supporting this, Respondent J reflected that "instructors lack the required competencies to assist students achieve higher-order learning outcomes" (Interview, August 5, 2020). Focusing on instructors' level of commitment and motivation to implement departmental plans, Respondent G stated the following:

> We observe academic staff's lack of motivation and commitment to put plans into practice. A motivated workforce is critical in the workplace. But teachers tend to conduct business as usual rather than engaging in innovative tasks and carrying out their jobs with ambition. (Interview, August 6, 2020)

Similarly, Respondent E argued that the number of academic staff with the required mindset and competencies to effectively engage students in the teaching and learning process is very low:

The problem is not about a lack of structure but working on the actual problems of students and trying to change the mindset of both teachers and students. Before engaging our students, teachers need to engage themselves in activities that help them design effective ways of engaging their students. Instructors needs to develop a sound understanding of engagement and the appropriate mechanisms of engaging students inside and outside the classroom. (Interview, August 3, 2020)

Respondent F detailed the lack of instructor and student competence and commitment as one factor affecting the successful implementation of CBE at JU:

Though CBE has been implemented, that does not mean that all students actually gain academic, social, and work-related skills from their engagement in CBE. A considerable number of students and instructors were able to develop the essential competencies, creative skills, and passion needed to bring change to the community because of their engagement in CBE. A few of them devalue the experiences gained, while others simply go into the community for fun and entertainment, and still others do not exert the effort to gain much from CBE. This might be related to differences in instructors' and students' levels of commitment, motivation, and passion. (Interview, August 13, 2020)

Respondent H was more specific in discussing the problem faced in hiring competent and committed law instructors: "we are really facing challenges to recruit teachers from the market. They do not satisfy the minimum requirement to teach law. Therefore, we opted to hire graduates of our own so that the school is staffed with qualified teachers. (Interview, August 6, 2020)

It is interesting to observe that instructors' lack of teaching competence and the commitment to put in the time and effort to actively engage students is paving the way for a growing tendency to academic corruption in HEIs. This is observed in Respondent F's reflection: "Academic corruption is everywhere in universities. Teachers perceive that dumping everything on students is what makes teaching student-centered and engaging" (Interview, August 13, 2020). A number of factors were responsible for instructors' limited teaching competence, commitment, and motivation to engage actively students in on- and off-campus educational experiences. In this regard, Respondent F pinpointed the following:

Heavy teaching loads, lower pay, poor economic condition, seeking part-time jobs, and a lack of satisfaction characterize todays' teachers and seems to explain

their lower motivation and commitment. Apart from this, the follow-up on what is happening in the classroom is weak. (Interview, August 13, 2020)

Respondent E argued that "the systemic academic, political, and economic corruption in the country, coupled with the poor economic conditions for instructors, have forced them to look for shortcuts to earn more income. This diminishes the effort instructors exert and the energy they put in to help students achieve the desired goals. (Interview, August 13, 2020)

Though a number of factors were cited for instructors' lower commitment and motivation to engage students and improve their learning outcomes, the deteriorating economic and living conditions of instructors was the most important. Instructors' lower salaries, the rising cost of living, and the rampant corruption in the country are forcing many instructors to leave their teaching posts and enter other sectors such as business, trade, and agriculture. Those who remain on the job tend to look for additional part-time teaching jobs in private colleges. This limited their commitment to fully use the allotted instructional time and to engage students in the teaching and learning process.

To address these challenges, the respondents identified several recommendations and suggestions. For instance, focusing on HE policy and strategic interventions, Respondent D recommended the following:

Creating a conducive teaching and learning environment and providing qualified and motivated staff should be given proper attention in policy and strategic discourses. (Interview, August 5, 2020)

On the other hand, Respondent F cautioned that there is no easy solution to address the challenges related to instructors' lower commitment and motivation and declining student achievement. However, changing the existing mindsets and beliefs of both instructors and students would play a major part in creating genuine systemic overhaul:

> We have to develop a hard-working culture and instill value and passion into our students and teachers. If teachers' and students' commitment and motivation is improved, students' achievement of academic, social, and work-related competencies will follow. The existing political, economic, and social problems of Ethiopia can be changed if the passion, honesty, and commitment of students, teachers, and leaders are changed. Hence, the successful implementation of policies, strategies, and guidelines aimed at improving the quality of education requires moving out of the comfort zone and enduring the pains, difficulties, and challenges that effort brings. Unless we change the existing mindsets and beliefs, implementing curricular intentions and changing existing practices will be difficult. Bringing overall change, therefore, requires changing existing value systems and practices. (Interview, August 13, 2020)

According to Respondent G, leadership matters most in bringing these much-needed changes. The respondent argued that even if the causes of instructors' lower motivation and commitment were investigated time and time again, universities would not change the way they do things:

> Universities merely emphasize establishing so-called centers of excellence. The question remains whether we are doing things in an excellent manner. Every effort should be made to enhance instructors' teaching competence, motivation, and commitment at all times through channeling the required resources. For this to happen, leadership really matters. (Interview, August 6, 2020)

Therefore, addressing instructors' lack of teaching competence, workplace commitment, and motivation requires the design and implementation of strategies aimed at changing their mindsets and belief systems and providing the necessary resources to enhance instructors' teaching competence and living conditions. The new HE policy and strategy also recommends the establishment of a system of continuous self- and professional development to enable instructors to strengthen their professional qualifications and competence. In addition, the policy emphasizes developing instructors' professional ethics and ensuring an appropriate mix of academic qualifications and ranks (master's, doctorates, professorships) for teaching and research activities. In addition, the policy framework calls for the design and implementation of incentive strategies aimed at improving the living

conditions of instructors in terms of housing, health, and education (MOSHE, 2020, p. 33).

5.3.4   Accessible educational and learning resources

By its very nature, promoting SE is resource-intensive. It requires the provision of adequate educational and learning resources and facilities. The existence of resources such as ICT, libraries, and laboratory services and infrastructure are essential to assisting teachers to design and implement quality on- and off-campus educational experiences. The available HE and QA policy documents emphasize the provision of essential educational resources and facilities. In fact, the effective provision of these resources is considered to be a necessary precursor in the effort to enhance the quality of education at all levels. For instance, the ESDPs (MOE, 1997, 2005, 2010a, 2015a), the Ethiopia Education Development Roadmap 2030 (MOE, 2018), and the HE Policy and Strategy (MOSHE, 2020) all place greater emphasis on the provision of educational facilities for students and teachers to create the best possible learning and teaching experience. Supporting this view, Respondent A stated, "the existing policies and strategies focused heavily on the provision of inputs such as laboratories, libraries, workshops, and smart classrooms. This was aimed to promote students learning" (Interview, July 15, 2020).

The present study also explores the extent to which HEIs have created enabling learning resources (e.g., ICT, libraries, and laboratories) to support SE during the learning process. The respondents' remarks show that over the years, universities have invested millions to improve educational resources and infrastructures. They have established state-of-the-art ICT and well-organized libraries, laboratories, and workshops. Beyond that, most first-generation

universities have established "Learning Resource Centers", which are designed to manage, use, and evaluate learning resources efficiently and effectively. When asked about the extent to which existing educational resources and facilities supported SE and the achievement of the mandated outcomes, Respondent B stated the following:

> While it is still not up to the required standard, our IQA indicates that compared to previous years, there is tremendous improvement in ICT infrastructure in both public and private universities. The library collection and catalogue system have also improved. Moreover, the number and types of laboratories and workshops have shown greater improvement over the last five years. (Interview, July 16, 2020)

Corroborating this, Respondent C stated, "I do not think Ethiopian universities face a shortage of the necessary learning resources and facilities. More than in previous times, technologies have improved classroom, laboratory, and library services and facilities" (Interview, July 23, 2020). Similarly, Respondent E described the context of educational resources at JU as follows:

> Existing educational resources are designed to enable students to engage in learning. Every college has a well-organized and technologically supported library filled with hardcover volumes and eBooks, journals, and articles. The university has a relatively advanced ICT infrastructure. Students have access to Wi-Fi services in their dormitories and cafeterias. In addition, there are well-established and standardized rooms and halls devoted to promoting discussion, research, and other educational endeavors. (Interview, August 3, 2020)

Similarly, Respondent D described the state of educational resources at AdU as follows:

> At each campus, there is a well-organized library service designed to enable students use available books in hard and soft copies. In addition, eBook collections are organized on each campus to support the teaching and learning process. There is a library club established to communicate new arrivals and encourage the use of library services. In addition, the university management conducts follow-ups to make sure that the library hall is conducive (e.g., well ventilated, sufficiently well lit, not crowded) to spending time reading and sharing knowledge and experiences. We have workshops and simulation rooms (e.g., bank, moot court) designed to create hands-on work-related experiences for students. (Interview, August 5, 2020)

CQA and department heads offered similar reflections regarding the access and use of ICT, library, laboratory, and workshop services and infrastructures. Some explicitly noted the role of QA guidelines and set standards in encouraging colleges or departments to ensure the provision of educational resources. For instance, Respondent K described the role played by the QA office as follows:

> The QA office requests all departments to identify required ICT, library, and laboratory resources and submit those needs for timely procurement. They are also requested to appropriately organize existing resources to ensure their effective use. Students are informed about the existing library resources in their field of study, internet centers, and laboratories to ensure access and efficient use. (Interview, August 5, 2020)

Respondents considered the provision of necessary educational resources and infrastructures (e.g., qualified and competent staff, libraries, laboratories, and workshops) as an engine to drive the development of students' academic, social, and work-related experiences. This was reflected by Respondent O:

> The achievement of higher-order learning outcomes depends on the existence of essential learning resources and the implementation of student-centered and practice-oriented teaching and learning processes. The university is improving existing teaching labs and workshops to promote practice-oriented teaching and the achievement of the desired learning outcomes. (Interview, August 13, 2020)

University management was observed to closely monitor and audit the quality and efficiency of the services delivered. Regarding this, Respondent F stated the following:

> Within two weeks, we were auditing the existing libraries, laboratories, and workshops. The audit was intended to assess the role of these facilities in supporting undergraduate and postgraduate teaching and learning. It was also intended to identify the challenges and problems facing service delivery. Honestly, speaking, the existing library, laboratory and workshop facilities do create an enabling environment. Compared to other schools, I can say JU is in a good position with regard to the services delivered. Conventional and digital arrangements are in place to provide students with the required learning resources. But this does not mean that everything is perfect. We are not satisfied with what we have. Much remains to be done in terms of structure, chemical provision, waste disposal, machinery maintenance, staff and student competence, and the overall work environment. (Interview, August 13, 2020)

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Along with stating the existing strengths, respondents also addressed the limitations observed in the provision of educational resources and facilities and the quality of those services that are delivered. It appears that, given the potential, the overall ICT, library, laboratory, and workshop services and infrastructures are underused in most first-generation universities. Reflecting on the reasons for this, Respondent C highlighted the following:

> I do not think Ethiopian universities face a shortage of the necessary learning resources and facilities. The problem lies in the efficient use of the existing resources and facilities. For example, JU has a sophisticated and high-tech information and communications technology infrastructure. However, studies report that it is underused. This arises from the fact that teachers, students, and researchers lack sufficient information about the availability of such services. (Interview, July 23, 2020)

Supporting the above claim, Respondent A argued that "in universities where resources provisions are relatively better, efficient use of existing resources was a major challenge. Much expensively purchased lab equipment and machinery was left unused due to teachers' and students' lack of practical knowledge" (Interview, July 15, 2020). On the other hand, Respondent J did raise the failure to providing adequate educational resources and infrastructures as a major factor negatively impacting the effort to improve learning outcomes:

> The existing problems associated with inadequate resources often challenge our efforts to help our students achieve more. Our university emphasizes building essential infrastructures, while SE in the -to-day teaching and the provision of learning resources receives little attention. Health science is a resource-intensive field of study. It also requires the continuous improvement of teachers' professional capacity. (Interview, August 5, 2020)

Similarly, Respondent A argued that there is mismatch between the number of students and the amount of resources provided, due to limited investments:

> Existing libraries, laboratories, workshops, and other relevant university infrastructures were heavily loaded. This limited the frequency of use of learning resources by students. For instance, a computer lab with 40 computers is expected to serve more than 600 students in a single department. Often, the number of students enrolled and the capacity of the university to provide the required library,

laboratory, workshop, and other relevant resources were not balanced. This limited the capacity of universities to create an enabling environment where students could actively engage in using learning resources. (Interview, July 15, 2020)

The respondent added that this scenario is posing a tremendous challenge for HEIs to design and implement strategies that "encourage students to use conventional and online libraries, traditional and digital classrooms, laboratories and workshops and other relevant university resources anywhere and anytime" (Interview, July 15, 2020). Respondent K raised the issue of recent political upheaval in most of the country as the most important reason for the inefficient use of existing learning resources:

> The university ensured the availability of essential resources for learning and provided better internet, café, library, and other facilities. Recent developments indicate that external factors are very important factors in affecting the internal teaching and learning environment. Over the last two or three years, there was a turbulent internal environment caused by external political upheaval. (Interview, August 5, 2020)

In addition, in a few departments (e.g., language, music, theatrical arts, and folklore), the installation of lab software, programs, workshop materials, and equipment was hampered due to a lack of professional expertise.

By contrast, second-, third-, and fourth-generation universities have launch undergraduate and postgraduate programs without having the required educational resources and infrastructures. A few respondents criticized these newly established universities for their failure to consider the resource context in launching academic programs:

> What is surprising is to observe newly established universities rushing to open academic programs that are resource intensive in nature. For instance, rather than starting fields of study that require lower investment on laboratory, workshop and other learning infrastructures, they open engineering, computer, health and natural science fields. In addition, student related problems are also observed in using these essential learning resources. Students do not properly use existing resources. Often, students break lab and workshop materials and machineries available in

their universities and industries. This proven costly both for universities and for industries. Therefore, industries tend to limit access and use of these machineries while students are placed for apprenticeship and practical attachment. This limits their engagement level and development of work-related competencies. To me, grass root level work needs to be done to develop institutional capacities and students' ability to use resources responsibly and efficiently (Respondent A, Interview, July 15, 2020).

The preceding discussions and reflections suggested that the failure to design and implement effective resource use strategies influenced the proper use of existing resources. In addition, compared to the number of students enrolled in universities, the quality of services offered appears to be limited. This was partly related to a mismatch between the available resources and infrastructures, the number of students, and the nature of academic programs. To make matters worse, instructors' lack of the skills needed to develop and present lessons using emerging technologies such as virtual, eLearning, and audiovisual platforms contributed to the observed limitations in using information and communications technology infrastructures.

5.4 Factors affecting SE and student outcomes in HEIs

In the preceding sections, various factors that influenced SE and the development of students' outcomes in public and private Ethiopian universities were discussed. In this section, four major factors that were identified in the participants' remarks and the review of policy, strategy, and curriculum documents are discussed in detail.

5.4.1 Policy, strategy, and curriculum-related factors

The emphasis given to SE and the development of student achievement and outcomes in HE policy, strategy, and curriculum documents plays a salient role in

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shaping institutional QA policies, strategies, and practices. A careful analysis of recent major policy reform documents—the Ethiopia Education Development Roadmap 2030 (MOE, 2018) and the new HE Policy and Strategy (MOSHE, 2020)—indicates the policy-, strategy-, and curriculum-related factors that have affected SE, the development of student outcomes, and the quality of education provided in HEIs.

The respondents' reflections showed that the main policy-, strategy-, and curriculum-related factors revolved around a failure to implement policy and strategic intentions. For instance, Respondent A asserted that the main problem is not about creating policies and strategies but is about putting those intentions into practice (Interview, July 15, 2020). In addition, respondents raised a mismatch between policy and strategic intentions with the economic realities of the country, the failure to actively engage policy implementers in policy development, misconceptions about policy and strategic intentions, and resistance to change as some of the most important factors affecting the successful implementation of HE and QA policies, strategies, and curricular frameworks. The following reflection appears to justify those claims:

> The policies and strategies suffer from implementation problems. A number of reasons can be cited. Among others, misconceptions, resistance, and a lack of participation at all levels pose significant challenges to policy implementation. For instance, misconception among university leaders, teachers, and students made the implementation of the one–to-five student networking initiative futile. In addition, the economic conditions of the country undermined the successful implementation of the policy and strategic intentions. For instance, the 70:30 policy recommendation was the right move. However, given the country's economic situation, enrolling students in universities with sufficient educational resources and infrastructures was difficult. This affected the provision of essential learning resources such as lab equipment, machinery, chemicals, and simulated and practical educational opportunities. In addition, students were forced to enroll in programs outside their interests. This contributed to an increased number of student withdrawals, lower SE in academic and non-academic affairs, and poor academic achievement. (Respondent A, Interview, July 15, 2020)

The other limitations discussed emphasized the limitations of existing policies and strategies in improving SE and the improvement of graduate outcomes, as Respondent I put it:

> The quality of our graduates is declining due to increased enrollment, a shortage of competent teachers, the deteriorating quality of the CBE program, and poor lab facilities and resources. Above all, the existing CBE program is not as efficient as it previously was. Over time, students' ability and competence to identify critical health-related problems in society, to devise solutions to address the issue, and to mobilize and engage society in solving the problem have declined. (Interview, August 5, 2020)

Hence, the emphasis placed on HE expansion and increased enrollment appears to have contributed to the deterioration of the quality of educational experiences provided for students and their development of academic, social, and work-related skills. Furthermore, the existing HE and QA policy and strategic framework was criticized for its lack of clarity and for being overly ambitious. In particular, the match and relevance of existing QA policies, guidelines, and standards with the nature and backgrounds of students and instructors were extensively questioned. This affected the effective implementation of the educational experiences as intended. The following reflection by Respondent J explains the issue:

> We find some of the policies to be remote from our context and too ambitious, given the existing context of the departments, colleges, and universities. Sometimes, the policies do not consider the nature and educational backgrounds of students. Often, the recommendations on teaching and learning methods and approaches do not consider the characteristics and capabilities of our students. (Interview, August 5, 2020)

Moreover, instructor- and student-related factors pose significant challenges to putting the mandated policy and strategic intentions into practice. Though the relevant structures were established, respondents claimed that instructors and students lack the proper mindsets, competencies, work ethic, and overall attitudes essential to realizing the policy, strategy, and curriculum expectations. In addition, the policy and strategic framework was criticized for being too soft with regard to

students and for its lack of emphasis on developing a hard-working culture. In this regard, Respondent E noted the following:

> Much work needs to be done to change the mindsets and attitudes of students. The education system is not addressing the attitudinal development of students. Much emphasis is placed on knowledge acquisition and the development of literacy skills. Starting from the lower levels of the education system through HE, the development of values and attitudes essential to succeed in learning and the world work needs to be given equal importance. (Interview, August 3, 2020)

A similar observation was found in Respondent H's interview:

> The existing policies and practices that attempt to make things easier for students should be revisited. Students' right should not be abused, and instilling a hardworking culture should be prioritized. The same is also true for teachers. A proper balance should be kept between academic freedom and fulfilling one's responsibilities. (Interview, August 6, 2020)

From the document and interview transcript review, it appears that various policy-, strategy-, and curriculum-related factors influence SE and graduate outcomes. Some policy, strategic, and curricular intentions lack relevance to existing employment opportunities and place little emphasis on the development of hard-working attitudes essential to transforming students' educational experiences. In addition, the failure to understand students' prior knowledge and experience, instructor competence, and the availability of educational resources and facilities pose significant challenges to the implementation of existing policy, strategy, and curricular intentions and interventions. Moreover, the existing HE policy and strategic framework is limited in clearly stipulating the role of government, industry, and universities in promoting university–industry linkages and internship practices. This affects graduates' employment opportunities. The key policy, strategy, and curriculum reforms currently underway are expected to address the quality and student outcome problems facing the HE system.

5.4.2 Institutional factors

A number of institutional factors influence SE and student outcomes. The SE literature indicates that institutional factors such as autonomy, academic freedom, and leadership and management practices significantly influence SE and students' development of academic, social, and work-related skills and competencies.

Similarly, HE and QA policy and strategies have identified institutional factors affecting SE and student outcomes. For instance, ESDP III (MOE, 2005) and the Ethiopia Education Development Roadmap 2030 (MOE, 2018) discuss the lack of essential educational inputs (human, material, and facility) and the absence of student-centered service delivery, management, and evaluation processes as major factors affecting students' outcomes and the overall quality of education. In addition, HE policy and strategy (MOSHE, 2020) discusses limitations in designing and implementing a system that links the effectiveness of HE leadership with performance in teaching and learning and improvement in student learning outcomes. These policy and strategic documents address the lack of HE leadership and management autonomy in pursuit of their missions and the institution's goals as central factors affecting institutional effectiveness and efficiency.

Though respondents discussed a number of institutional factors affecting SE and student outcomes, the following institutional factors were rated most highly. For instance, Respondent G asserted that the emphasis placed on the expansion of HE undermined the autonomy of departments to design and implement relevant academic curricula and appropriate QA measures and standards. This in turn affects SE and hampers student achievement of desired learning outcomes. Respondent's G put it this way:

> In a country where resources are scarce and there is limited access to HE, we are compromising quality for quantity. The knowledge, skills, and experiences that students bring with them from their previous education and development are not considered when designing academic programs. Students' admission into certain academic programs is not carried out on a competitive basis. They are admitted on

quotas determined by the MOE. Therefore, departments are not in a position to decide on the ability, experience, aptitude, and quality of the students who enroll. (Interview, August 6, 2020)

Respondent C claimed that a lack of employment opportunities and limitations in developing graduates' entrepreneurial capabilities as key factors affecting institutions' ability to ensure a quality education:

We have to consider the potential of the country's educational, economic, social, and political environment to create more jobs and foster entrepreneurial abilities. For instance, cities, towns, and universities are not creating the science parks and technology and incubation centers essential to developing students' entrepreneurial capabilities. Students may graduate and not have employment opportunities. However, this does not mean that they did not possess the required knowledge and competencies. I think we have to find a comprehensive definition of "quality" that is appropriate to Ethiopian context. (Interview, July 23, 2020)

Respondent E, meanwhile, focused on the external factors that are challenging institutions' ability to transform students' college experience, educational outcomes, and quality of education:

The political scenario experienced in this country is causing tremendous problems. External factors are forcing the university to focus more on routine tasks than on activities that really matter for students. Students also listen more to outside voices [on social media] than to university management and teachers. (Interview, August 3, 2020)

Politicizing education and QA interventions poses significant challenges to a university's capacity, staff commitment, student output, and outcomes. The extent to which existing policies, strategies, and guidelines promote institutional autonomy and academic freedom determines an institution's ability to engage students and promote their achievements. Moreover, the existing accountability and responsibility measures and procedures used at national, institutional, university, college, and department levels contribute to the inefficiencies observed.

5.4.3 Instructor-related factors

Teachers play a vital role in promoting SE and the development of student outcomes. Teachers are regarded as the implementers of curricula or those who translate policy intentions into practice. As instructional designers, implementers, and evaluators, they play a pivotal role in creating a conducive teaching and learning environment. Therefore, they are instrumental in fostering the development of students' classroom, on-campus, and off-campus educational experiences, which play an important role in promoting the quality of student learning and outcomes.

The existence of competent, enthusiastic, and responsible academic staff is thus essential to implementing the HE and QA policies, strategies, and guidelines that have been formulated and promulgated. However, a number of instructor-related factors are impeding the successful implementation of the current policies and strategies and the academic curricula. The documents reviewed reveal that most instructors teaching at public and private universities lack the required pedagogical competence, subject matter knowledge, and other skills. In addition, teachers' sense of professionalism, workplace commitment, and motivation have declined due to a number of internal and external factors (MOSHE, 2020). Some factors discussed were a poor working environment, a lack of professional integrity and competence, and lower incentive schemes. This influenced their effectiveness and efficiency in teaching.

The respondents' reflections also corroborated the factors discussed in the policy and strategic documents. For instance, reflecting on the deteriorating commitment and professional integrity of teachers, Respondent E reported the following scenario:

> Most teachers did not positively perceive the introduction of a remedial policy that allows a student who has failed to pass the final examination or part of CA to sit for a remedial exam. Teachers considered this policy initiative as requiring

them to spend additional time and effort without any additional remuneration. Therefore, they opt to give a passing grade and let the student complete the course. (Interview, August 3, 2020)

On the other hand, Respondent M argued that the implementation of strict performance evaluations of teachers by students was not welcomed in Ethiopian universities. Over time, teachers have lost the professionalism, integrity, and enthusiasm for which they were once well known:

Teachers do not welcome students' critical evaluations. This has affected student–teacher interaction and the grades students receive. To resolve this issue, we introduced an online teacher evaluation system where students can engage freely in evaluating their teachers. In addition, the value teachers place on educating students, helping them to work hard to achieve goals, their hatred of corrupt practices, and feeling responsible to society and the country have all declined. (Interview, August 9, 2020)

Similarly, most respondents stated that the tendency to participate in unethical practices—dishonesty, favoritism, nepotism, and so on—in evaluating and grading teacher and student performance is growing. Some students feel that ensuring higher ratings on a teacher's performance would convince that teacher to be flexible in grading the student's work. In addition, some teachers' grade student performance based on their ethnic, gender, or religious characteristics. Apart from this, most junior and senior instructors lack the competence required to implement a stimulating and challenging teaching and learning process, as Respondent J noted:

Teacher-dominated teaching and learning characterize our education system from lower to higher levels. Students feel it is the responsibility of the teacher to promote their learning. Therefore, it is assumed that teachers are providers of knowledge and skills, while students are regarded as passive recipients. This hinders the engagement of students in the active construction of knowledge and experiences. (Interview, August 5, 2020)

The way teachers perceive their students determines the types of teaching and assessment methods they use, which influences the nature teacher-student interactions, students' role in the instructional process, and the amount of time and

effort that students invest. The prevalence of teacher-centered pedagogy undermines the implementation of engaging, practice-oriented, and challenging teaching, learning, and assessment processes. In addition, it limits students' role and their engagement in hands-on educational experiences. This limits their rate of learning, achievement of higher-order learning outcomes, and their prospects after graduation. Corroborating this claim, Respondent N said the following:

> It is difficult to suggest that we are producing analytical, critical, and creative graduates. Various factors influenced students' achievements of higher-order learning outcomes. The existence of a content-loaded curriculum, intensive block delivery, and limited practice-oriented and teacher-centered teaching have all contributed to a deterioration in the quality of student learning and outcomes. (Interview, August 10, 2020)

Similarly, Respondent O discussed the factors affecting student outcomes at JU:

> Various factors influence the development of students' academic, social, and work-related competencies and outcomes in the Institute of Technology: teachers' lack of essential pedagogical and subject matter knowledge, skills, and competences; teachers' engagement in part-time jobs and businesses due to lower salary and poor incentives; and lower motivation and commitment among both teachers and students to invest their time and effort into improving learning and achievement. (Interview, August 13, 2020)

Teachers' lack of pedagogical competence, motivation, commitment, and professional integrity dominates the teacher-related factors influencing the student role, SE, and students' development of academic, social, and work-related skills and competencies.

5.4.4   Student-related factors

Student factors also undermine the effective implementation of HE and QA policy, strategy, and curriculum intentions. The most impactful student-related factors discussed in the SE literature include a lack of motivation, commitment, and enthusiasm to engage in the teaching and learning process. Students may also

lack the ability to use effective behavioral, cognitive, and affective strategies and the tools essential to accomplish the set learning outcomes.

The existing policy and strategy documents (e.g., MOE, 2018; MOSHE, 2020) discuss a number of student-related factors that are impeding the development of academic, social, and work-related skills and competencies. The dominant factors stipulated in these documents include poor student entry behavior, the lack of commitment, motivation, and discipline needed to put in the effort and time spent on academic tasks. In addition, students' lack of aspiration to achieve more, the declining value of education due to growing graduate unemployment, active engagement in disruptive behaviors, spending time on social media, and searching for shortcuts to earn passing grades and to graduate are all noted as issues.

The respondents' views, as expressed in the interviews, support the conclusions drawn from the document review. In general, respondents raised students' lack of basic communicative and other soft skills, the lower quality of general education, and students' lack of motivation, interest, and commitment to put effort and time into their studies as key factors affecting the implementation of student-centered teaching and learning processes and students' achievement of expected outcomes. According to Respondent E, because students are preoccupied with unproductive activities, the amount of time and effort they invest in productive educational experiences is limited:

> SE is one of the problems our education system is facing. It is in great danger throughout the country. Even though there are efforts to create different platforms by teachers and institutions to enhance the level of SE, students' engagement levels in academic matters are deteriorating with time. The existing practices inside and outside the classroom indicate that much needs to be done to enhance SE in their learning. Students attend classes because the teacher is forcing them to attend or because parents put pressure on them to graduate. By contrast, SE in political matters and other issues seems to have recently increased. (Interview, August 3, 2020)

Similarly, Respondent O stated the following:

Among others, students' lower motivation and commitment to invest their time and effort into improving their learning and achievement are affecting our efforts. Most importantly, SE in destructive political, ethnic, or religion-based violence is significantly affecting the day-to-day teaching and learning process. (Interview, August 13, 2020)

Corroborating these claims, Respondent F commented on students' lack of motivation and commitment to improve their KSAs:

Students also don't appreciate and value hardworking and committed teachers. Any attempt to engage students by providing them with additional tasks and activities is not received positively. Only a few students are encouraged and motivated by such efforts. Therefore, only competent students appreciate all the efforts made to engage students; others appear to be frustrated by it. This scenario forces teachers to employ teacher-centered teaching, learning, and assessment methods. (Interview, August 13, 2020)

Respondent E extended the claims that students do not want to go through the hardship of academic tasks. Rather, they invest much of their time in non-academic activities. This is observed in the following reflection:

Students are not interested to read books and use existing libraries. They prefer soft-copied materials (e.g., PowerPoint Presentations, handouts). They do not want to invest their energy reading available books rather they prefer readymade materials in their phones or laptops. Other than this, they are using existing internet services for chatting purposes. (Respondent E, Interview, August 3, 2020)

Respondent N added that "most students do not prefer a teaching and learning environment that challenges them to engage actively and invest their time, energy, and efforts to explore topics and ideas in depth. They want to go through a relaxed, free, and easier teaching and learning episode" (Interview, August 10, 2020). Reflecting on the situations of students studying the hard sciences, Respondent K stated the following:

I don't think students are playing their expected roles. Students' motivation to learn and put effort and time into learning hard disciplines is very low. They only seek shortcuts to pass examinations or complete courses rather than focusing on improving their knowledge, skills, and competencies. It is surprising to note that these students have better access to learning technologies, materials, and resources than in previous times. This lower motivation might be related to lower employment opportunities for graduates of applied sciences. Students observe

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senior graduates who are unable to find jobs and feel that the same fate is waiting for them. This hopelessness might be responsible for the diminished role, sense of ownership, and lack of interest. (Interview, August 5, 2020)

Therefore, students' lack of motivation to commit their time, effort, and energy to tasks and activities that will improve their academic, social, and work-related skills are the dominant student-related factors influencing SE and student outcomes. The KSAs that students bring with them from their previous educational experiences are limited due to the generally poor quality of secondary education in Ethiopia. This has an impact on the quality of students' college experiences, learning achievements, and graduate outcomes. Recent policy documents (e.g., MOE, 2018; MOSHE, 2020) corroborate this line of argument. For instance, the Ethiopia Education Development Roadmap 2030 argues that SE, as gauged by motivation to learn, interest in academic activities, reading, and attendance, was observed to be very low. Among other issues, students' lack of interest, enthusiasm, and commitment to develop their knowledge and skills can be explained by the failure of the broader educational system to motivate students (MOE, 2018, p. 27).

Respondents also discussed the causes for students' lack of motivation, commitment, and enthusiasm. Respondent C argued that students enrolling in universities lack maturity and are powerfully influenced by social media and peer pressure. This creates challenges in refocusing students' attention toward improving their learning, academic, and work-related competencies (Interview, July 23, 2020). Respondent L claimed that most students enrolled in HEIs do not take academic programs that match their interests. This trend is significantly influencing SE in the hard sciences. Furthermore, the growing unemployment rate observed among hard science graduates is affecting students' motivation, commitment, and enthusiasm to exert the efforts required (Interview, August 7, 2020). In addition, respondents tried to associate the poor quality of secondary education, the lack of relevant curricula, underdeveloped student entry behaviors, and poor professional

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competence among HE teachers as key reasons for the deterioration of HE quality and student outcomes. Concerning this issue, Respondent C stated the following:

> The general education curriculum needs to be revised to ensure relevance and quality. The output from general education is considered an input for universities. When the entry behavior, knowledge, and competence of students enrolling in HE improves, so will their college experience, learning, and graduate outcomes. In order to improve the quality of general education, effectively conducting teacher development programs is essential. Improving the competence and proficiency of teachers needs to be given priority to improve the quality of general education. In addition, universities need to engage themselves in supporting nearby secondary schools. (Interview, July 23, 2020)

Similarly, Respondent G cited differences in students' enrollment characteristics, such as academic ability and socioeconomic status, as important causes of the differences observed in students' level of motivation, commitment, and enthusiasm to improve their college experience and learning achievement. The following reflection by Respondent G indicated this:

> The most important factor is the background of students enrolled in our college. The potential, educability, and learning ability of students is critical for their success. I want students to enter disciplines of their choice that fits their future aspirations. This would be a big start to improve the deteriorated quality of education and to improve graduate outcomes. It is known that not all students succeed in certain academic discipline simply because they are enrolled. A student from a well-educated family background, better economic conditions, and a big city can enter the same program as a student from a rural area, a family with little or no educational background, and lower economic conditions. (Interview, August 6, 2020)

Supporting this, Respondent K argued that "students enrolling in the college lack soft skills such as communication skills in both local and instructional languages" (Interview, August 5, 2020). On the other hand, Respondent J argued that student enrollment processes failed to consider the competencies and expectations required in the various disciplines. While reflecting on the situation of students enrolled in the health sciences, Respondent J stated the following:

> Students enrolled in HEIs differ in the way they perceive their roles, in their levels of motivation, and in their academic backgrounds. Some students joined our

programs with greater interest and motivation to learn and to engage, while others joined the program thinking only about the employment opportunities in health sciences fields. There are students who enroll in our programs with outstanding academic backgrounds and others with lesser backgrounds. There are a few things done to promote SE, but I do not think they are enough. (Interview, August 5, 2020)

On the other hand, some respondents raised major factors related to policy, structure, and the teaching and learning environment as responsible for students' problems. For instance, Respondent E argued that inadequate teachers' teaching competence, teachers' and students' lack of a proper mindset, poor work ethic, and negative attitudes as the reasons for the observed student-related problems (Interview, August 3, 2020). Similarly, Respondent L noted that departments are doing their best to ensure the effective implementation of the curriculum as intended:

> The learning outcomes stated in the program curricula include higher-order learning objectives across the three domains of learning outcomes. Teachers attempt to create a learning environment where students can perform tasks in groups and in laboratories. However, stimulating students to expand their learning horizons beyond the classroom, the laboratory, and the campus has seen only limited success. The teaching and learning methods in the curriculum call for the implementation of a challenging teaching and learning environment. However, creating a stimulating learning environment has become difficult since most students enter the program without being interested in it. Most simply want to graduate rather than striving to earn better grades and achieve more. (Interview, August 7, 2020)

The reflection by Respondent M supports the statement made by Respondent L:

> Though a number of factors influence the development of students' academic, social, and work-related competencies and outcomes in our college, I will focus on the following key factors. First, students' lower motivation for and interest in education are powerfully affecting the quality of student achievement and learning outcomes. Second, SE in social media is strongly influencing their behavior and the time and energy they invest in learning while damaging societal values. Third is the academic curriculum's lack of relevance to students' actual experiences, realities, and circumstances. The contents of the curriculum and the learning experiences organized in universities are too far from the day-to-day real lives of students and society. Fourth, the value given to education, working hard to

achieve goals, hatred of corrupt practices, and feeling responsible to society and the country have declined. (Interview, August 9, 2020)

Similarly, Respondent O argued that the greater emphasis placed on a student-centered policy has contributed to misuse of students' rights and duties:

> The problems observed in these platforms is that students only struggle to protect students' rights without considering the adverse effect on quality. For instance, if a student fails to pass a course, the policymakers urge departments to provide them with re-examinations by delivering the course in block. In addition, student representatives who are engaged in decision-making processes leak confidential decisions made at councils without using proper channels. (Interview, August 13, 2020)

It appears that providing remedial and repeat examinations has a negative effect on both teachers' and students' commitment and motivation, as Respondent E put it:

> There are teacher- and student-related problems that have affected the successful implementation of the intended policy. Because of remedial actions, students started exerting less effort and a limited amount of time in improving their learning. Their willingness to work hard and achieve more declined. They started to assume that if they failed a final examination or part of their CA, they could take remedial examinations and pass the course. Teachers also say that if a student gets an "F" or "Fx" grade, he or she is allowed to obtain remedial support and retake the examination. This requires teachers to spend additional time and effort without any additional remuneration. Therefore, they opt to give a "C" grade and let the student pass the course. (Interview, August 3, 2020)

Respondent H noted that complacency in the emphasis in existing policies on ensuring students' rights is undermining institutional efforts to induce a sense of accountability and responsibility:

> I can understand that the dynamics of teaching and learning have changed tremendously. Teacher–student relationships became democratic. However, that should not be understood to mean an absence of responsibility and accountability. Teachers should focus on guiding students to achieve the best outcomes in their stay at the university. In addition, students have to be scrutinized very seriously and go through the most challenging teaching and learning process possible. (Interview, August 6, 2020)

A number of factors thus influence institutional effort to engage students in on- and off-campus educational experiences. First, institutions' increased

investment in ICT, including internet services, is not efficiently engaging students in academic matters. Indeed, its adverse effect on student learning and achievement is growing over time.

In addition, students' lack of motivation to commit the time, effort, and energy to tasks and activities that will lead to the improvement of their engagement and achievement is impeding the development of their academic, social, and work-related skills. Moreover, the increased importance of external factors— political turmoil, graduate unemployment, social media, and student strikes—are affecting the day-to-day operation of universities across Ethiopia. Over the last five years, establishing a peaceful teaching and learning environment has become challenging for most universities in the country. The frequent class disruptions have significantly influenced content coverage, the implementation of student-centered teaching and learning processes, and effective CA procedures. This affects the amount of effort and time students spent, their sense of ownership, and their accepting responsibility for their own learning.

In addition, existing QA policies and practices have failed to consider students' goals, aspirations, enrollment preferences, and educational backgrounds when trying to improve their engagement and learning outcomes.

6   DISCUSSION OF FIRST-PHASE, QUALITATIVE RESULTS

This part presents the discussion of the result of the first-phase, qualitative interview and document analysis data. The discussion is organized on the major research questions and supported by relevant scholarship. In addition, the discussion is framed in light of the major themes, concepts, dimensions, and theoretical underpinnings that were generated from the in-depth analysis of the first-phase, qualitative data. The discussion is framed so as to assist the development, adaptation, or choice of an appropriate survey instrument to test SE themes, concepts, dimensions, and assumptions using quantitative data.

6.1   SE concepts, typologies, dimensions, and theories from Ethiopian HE perspectives

This study was triggered by three major research questions. The questions posed were the following:

1.   To what extent do existing HE and QA policies, structures, and processes emphasize the development of students' college experience and student outcomes?

2.   In what ways do the themes generated in the qualitative phase of the study contribute to a comprehensive understanding of SE concepts, dimensions, typologies, and theories from an Ethiopian HE perspective?

3.   How does SE influence student achievement and outcomes?

The first two questions were to be addressed in the initial, qualitative phase of the study. The third question was designed to be investigated in both the qualitative and quantitative phases of the study. Accordingly, the study adopted a mixed exploratory sequential research design. The selection of this research design enabled the generation of SE concepts, typologies, dominant dimensions, and theoretical lenses by allowing for the continuous interplay, analysis, and interpretation of qualitative interviews and document analysis. In particular, the use of applied thematic analysis assisted in generating SE variables and measures that were instrumental in locating and adapting a relevant SE survey instrument. The finalization of this instrument was intended to test, using quantitative data, the observed SE concepts, dimensions, theories, and constructs from Ethiopian HE perspectives. This assisted in examining the relationship between SE, quality of students' educational experiences, and their achievement of mandated outcomes. Therefore, this chapter discusses the major findings of the first-phase, qualitative data analysis and interpretations in light of the research questions and the second phase of the overall study.

6.1.1 Conceptions of SE

Since its first appearance in educational literature (Astin, 1984), clearly defining the concept of SE has remained challenging, if not impossible. Regarding this, Steele and Fullagar (2009) state that there is still no consensus on the conceptualization and foundations of SE. A number of reasons are discussed. The concept of engagement is seen as vague (e.g., Vuori, 2014) or slippery (e.g., Gibbs, 2016; Shaw, 2016). In addition, engagement touches on a wide array of educational philosophies and theoretical underpinnings that often make finding a plausible definition challenging. The multidimensional nature of engagement constructs and

the influence of individual, institutional, and external variables on the rate and level of engagement make the precise measurement of rates and levels of SE difficult (Burch et al., 2015; Zhoc et al., 2018). Moreover, established engagement surveys have been criticized for a failure to consider contextual variations and placing greater emphasis on institutional policies and practices designed to promote SE in college activities (Steele & Fullagar, 2009). Therefore, finding a working definition that considers the context in which engagement is measured is essential.

In this study, two processes were used to generate the concept of SE: word/phrase and code frequency and relationship analysis. The word document and word cloud analysis indicated that certain words and phrases were frequently mentioned by respondents. The following word cloud was generated to show the words and phrases most frequently mentioned by respondents in all groups.

Figure 5. Word clouds generated from qualitative data analysis.

As the word cloud indicates, the words and phrases most frequently mentioned by respondents are *students, learning, experience, engagement, teaching, outcomes, competencies, academic, curriculum, policy, education, quality, resource, strategy, community*, and *university*. The frequency of these words indicates their relative importance and proximity to the issues of SE, learning experiences, and educational outcomes; they provide a foundation on which the concept of SE can be generated. Efforts to define the concept of SE need must pay attention to students' experience, students' learning, teaching methods, educational policies and resources, curriculum competencies, and student outcomes.

The findings from the code frequency and relationship analysis found positive correlations between any number of codes and variables. For instance, the code active construction of knowledge and skills code was positively correlated with the teaching and learning environment, engaging assessment and feedback, and engaging and experience-centered curriculum design and development codes. In addition, the collaborative learning strategies code was positively related to the quality of interaction between students and teachers, importance of SE in HEIs, and importance placed on SE in HE policies and practices codes. The community and workplace engagement code was positively correlated with the effective partnership of stakeholders code, and the role of universities in improving student outcomes code was positively related to the enabling learning resources variable. In addition, the ensuring accountability and responsibility variable was positively correlated with the existing structural arrangements to promote SE variable. Finally, there was a positive relationship between the existing employment opportunities and graduate outcome measures codes.

Examining the observed relationships between the codes or variables suggested the existence of various constructs embedded in the SE concept, which corroborates the arguments made about the multidimensional nature of SE

(Appleton et al., 2008; Burch et al., 2015; Zhoc et al., 2018). Among others, constructs such as active construction of knowledge, transformed experience, quality interaction, collaborative learning strategies, engaging assessment and feedback, and experience-centered curricula are inherently embedded—though to greater or lesser degrees—in the concept of SE. In addition, the relationships between the codes delineated the importance of considering HE policies and strategies, institutional goals, and structural arrangements, the teaching, learning, and assessment environment, educational resources, and accountability and responsibility measures in defining SE.

Based on the relationships between the generated variables, the following working definition of SE was articulated: the "active involvement of students in the construction of knowledge, skills, and experiences, either individually or collaboratively. It involves the development and implementation of policies, strategies, curricula, resources, and infrastructures relevant to support the engagement of students in classroom, on-campus, and off-campus educational experiences". This conception accords with earlier conceptions offered by the NSSE and AUSSE, which viewed engagement from two perspectives: the amount of time and energy students put into learning, and the policies, practices, and resources institutions deploy to facilitate SE in enriching educational experiences (Coates, 2005; Gonyea & Kuh, 2009). Though contextual variations exist, the role that institutional policies, structures and processes play in promoting the SE rates and levels and improving the college experience appear to be valued in Ethiopian HEIs.

6.1.2   Dimensions of SE

As a construct, SE comprises three dimensions: behavioral, cognitive, and affective (e.g., Appleton et al., 2008; Kahu, 2013; Zhoc et al., 2018). However, some

research has added academic engagement as a separate dimension from behavioral and cognitive engagement (e.g., Zhoc et al., 2018). Considering the growing importance of the external ecological environment in determining students' educational experiences, another dimension called community engagement is added as a dimension of SE (e.g., Kahu, 2013; Lawson & Lawson, 2013; Zhoc et al. 2018). Based on the analysis of the codes and the themes generated from them, the present study strives to explicate the dimensions of SE from Ethiopian HE perspectives. It is essential to note that the codes that were grouped to make up the themes represented respondents' conceptions, perceptions, and reflections of existing practices in observed HEIs.

The synthesis of themes generated explicitly indicated three broader dimensions of SE: *academic* (principally involving behavioral engagement), *enriching educational experiences,* and *community engagement dimensions*. Implicitly, however, the behavioral, cognitive and emotional dimensions of engagement were identified from respondents' reflections and the synthesis of HE and QA policy and strategy documents. In any case, the four dimensions of SE—behavioral, cognitive, affective, and community—that laid the foundation for the measurement of SE in the literature were observed from the Ethiopian HE perspective. However, the failure to extrapolate the psychological aspect of engagement (the cognitive and emotional dimensions) suggests that lesser emphasis is given to the development of students' thinking skills, motivation, interest, and sense of belongingness. This finding corroborates those in MOE (2018) and MOSHE (2020), which point out the limitations of HE and QA policies, strategies, and practices in stimulating students' learning interest, motivation, and commitment.

The engagement dimensions observed in the present study support the notion that the SE construct has a multifaceted nature (e.g., Kahu, 2013; Leach & Zepke, 2011). Nevertheless, the dimensions observed in this study seems to be structurally

distinct and conceptually different. For instance, the academic dimension of SE emphasizes measuring the extent to which teaching, learning, and assessment processes are student-centered and genuinely engaging. This conception integrates behavioral and cognitive engagement. Similar conceptions are also found in Zhoc et al. (2018) and NSSE (2013). For instance, in their definition of academic engagement, Zhoc et al. use class attendance, time and effort invested, and persistence in studies (2018, p. 6). Similarly, the NSSE's (2013) conceptions of engagement integrate the behavioral and perceptual dimensions. The NSSE survey instrument emphasizes measuring the amount of time and effort students invest in purposefully designed educational activities.

Similarly, in the present study, community engagement emphasizes measuring two types of SE in off-campus educational experiences: community-based learning experiences and enriching educational experiences. While the first focuses on advancing SE in addressing problems in the community, the latter emphasizes measuring SE in work-based internship, placement, and service learning experiences. However, there is a discrepancy between conceptions of community engagement in existing HE and QA policy and strategic provisions and the practices observed at public and private universities. For instance, the recent HE Policy and Strategy (MOSHE, 2020) operationalizes community engagement as engagement of the university community (academic staff and students) and the surrounding community (agencies, organizations, industry, etc.) in a range of scientific, teaching and learning, technological, and research efforts. ESDP V (MOE, 2015a) states that universities are expected to collaborate with industry and mega-project implementers to improve the relevance of research and technology development for societal and national development needs. Moreover, the implementation of CBTP in undergraduate curriculum at JU was explicitly intended to improve the vibrancy of the community and bring development to locality, region, and country at large (JU-QA Policy, 2020). The design,

implementation, and evaluation of internships, practical attachments, and placements were considered essential aspects of enriching educational experiences, while addressing community-oriented problems was regarded as one form of community-based learning experiences organized by institutions.

Interestingly, the dimensions of behavioral, cognitive, and affective engagement were not explicitly observed in the present study. Implicitly, however, the synthesis of students' role in teaching, and assessment, as indicated by respondents' reflections and stipulated in HE and QA policy and strategic documents—clearly indicates an emphasis on the behavioral, cognitive, and affective dimensions of SE. For instance, SE's behavioral dimension was observed in codes and quotations that represented respondents' statements regarding the amount of time spent by students attending lectures, their participation in group discussions and collaborative learning activities, and the efforts they expended on studying course materials, working on assignments, and carrying out lab activities. In addition, the essence of cognitive engagement was reflected in claims made regarding the emphasis on the development of students' critical, analytical, evaluative, and creative thinking skills, along with SE in the active construction of knowledge and experience. The discussions of and reflections on students' sense of motivation, commitment, and enthusiasm to engage in the teaching and learning process and participate in student unions and decision-making processes at various levels, appreciating the local community, and putting in the effort to address societal problems signify students' affective engagement.

The absence clear evidence of SE as it appears in global research could be attributed to variations in conceptualizing SE, and differences in learning contexts, structural arrangements, resource provisions, and the research design adopted. The importance of context in influencing SE has been noted by numerous engagement researchers (e.g., Hagel et al., 2012; Kahu, 2013; Picton et al., 2018). Regarding

differences in the research design adopted, SE research is dominated by surveys collected from large numbers of participants using predetermined measures of engagement. In addition, our understanding of SE concepts, indicators, and measures has largely borrowed from research on HEIs operating in different contexts. The claims made by Bond and Bedenlier (2019) on dimensions of engagement support this argument. According to Bond and Bedenlier (2019), the three dimensions of engagement are observed with the help of indicators (usually survey-oriented measurements) and are often influenced by the nature of the learning environment and broader structural and sociocultural arrangements (Kahu & Nelson, 2018).

In addition, the fragmented observation of the core dimensions of engagement from an Ethiopian HE perspective might be related to the limitations of HE and QA policy, strategy, curricular, teaching, and learning practices in fostering the development of students' behavioral, cognitive, and affective engagement. The major policy and strategic recommendations stipulated in the Ethiopia Education Development Roadmap 2030 (MOE, 2018) and the HE Policy and Strategic (MOSHE, 2020) corroborate this view. In these documents, the relevance of academic curricula, the quality of teaching, learning, and assessment practices, and the opportunities created to engage students in on- and off-campus educational experiences were cited as the most important factors affecting the development of students' academic, social, and work-related competencies.

Nevertheless, the explication of the observed dimensions of SE played a salient role in informing the second, quantitative phase of the study. It provided insights into the core engagement concepts and dimensions that need to be selected in determining the appropriate SE survey instrument. In addition, it enabled measuring SE using engagement dimensions that arose from the careful analysis of current HE policies and practices. This played a tremendously important role in drawing valid inferences from the results of the quantitative phase of the study.

6.1.3   Typologies of SE

Various typologies of SE have been discussed in the engagement literature (Ashwin & McVitty, 2015; Coates, 2007; Pike & Kuh, 2005; Zepke, 2015). Assessing the typologies of SE helps classify institutions and students based on the nature, degree, and level of educational experiences provided. In addition, discussion of SE typologies plays an important role in identifying indicators that could be used to measure SE and the types of educational experiences organized for students. Most importantly, examining SE typologies helps gain insights into the measures taken by institutions to promote SE and to identify the areas of excellence that characterize specific institutions.

Though various methods of classifying SE are available, I opted to use Pike and Kuh's (2005) measures of institutional characteristics to explicate the typology of SE in the case universities. This classification was found to be relevant as it enables measuring what institutions are doing to promote SE. The classification of SE typologies based on engagement styles by Coates (2007) and the classification of SE typologies based on the object in which students engage by Ashwin and McVitty (2015) focus on differentiating students based on their level of involvement and style of engagement. Since the first phase of this study relied on examining national and institutional policies, strategies, processes, and practices using qualitative interviews and document analysis, the use of institutional measures rather than student-related measures is more appropriate for identifying context-based SE typologies and the type of educational experiences provided by HEIs. However, student-oriented typologies *were* used to compare the NSSE concepts, dimensions, and theoretical perspectives with the engagement concepts, dimensions, and theoretical assumptions that arose from the qualitative phase of the present study.

As discussed in Chapter 2, Pike and Kuh (2005) classified institutions using seven engagement typologies that detail the nature of the educational experiences that institutions organize for students. According to these scholars, some institutions are notable for offering students diverse educational experiences but are weak in creating a supportive and collaborative environment that satisfies students' academic and social needs. On the other hand, an institution could be known for its emphasis in engaging students in intellectually stimulating classroom and out-of-class learning experiences while having limitations in promoting students' achievement of higher-order learning outcomes. Accordingly, variations in the type of educational experiences provided are associated with variations in SE typologies (Pike & Kuh, 2005).

The findings of the first-phase, qualitative study show that the observed universities are attempting to implement different strategies to engage students in diverse educational experiences. The area of engagement emphasized in these institutions included engagement in teaching and learning processes, in collaborative learning experiences, in decision making, in community-based educational experiences, and in various forms of enriching educational activities such as industrial placements, practical attachments, and internships. In addition, the observed universities emphasized setting higher expectations for students, improving the relevance of the curricula, implementing continuous and summative assessment, and promoting staff and student interaction. The case universities were seen to be attempting to support the instructional process through different forms of instructional media and learning technologies. The observed institutions are thus making an effort to provide students with diverse educational experiences, peer support, and cohesive interpersonal relationships in an academically challenging and intellectually stimulating learning environment.

However, the institutions were found to offer limited technology-intensive and individualized educational experiences for students. From this outlook, it can be

argued that, save for one typology of SE, most engagement typologies listed by Pike and Kuh (2005) are found in the observed universities. This finding is consistent with the finding of Pike and Kuh (2005) that suggested institutional variations in the types of engagement and educational experiences provided. According to their study, some institutions were found to be engaging students in a single domain, whereas others were doing so across several domains (pp. 203–204).

However, a careful analysis of the participants' reflections and document analysis suggests a mismatch between policy, strategic, and curriculum intentions and the actual practices observed in Ethiopian HEIs. For instance, teacher-centered teaching and learning process, limited collaborative learning, internships, and placement opportunities, lower participation of students in decision-making processes, and the dominance of paper-and-pencil assessment practices all characterize current teaching, learning, and assessment practices at Ethiopian HEIs. This situation undermined students' levels of behavioral, cognitive, and affective engagement. In addition, a given university's attempt to promote multiple typologies of SE could suggest a lack of institutional focus, inefficient use of scarce resources, and limitations in transforming students' academic, social, and work-related competencies. The finding of MOE (2018) and MOSHE (2020) that characterized Ethiopian universities as inefficient, lacking focus, and poor in terms of specialized areas of excellence supports this claim. Therefore, the typologies of SE that were explicated from the qualitative findings need to be carefully examined by using quantitative measures. The determination and testing of an SE survey instrument was carefully made to ensure the integration of variables and measures that reflected the existing perceptions, conceptions, and practices relevant to the Ethiopian HE context. The use of data from multiple perspectives was considered essential to enhancing the accuracy of labeling Universities based on SE typologies. In addition, it allowed the use of multiple measures of SE data that consider the

existing institutional context in which the policy and strategic frameworks were put into practice. This in turn contributed to enhancing the construct validity and reliability measures of the survey instrument used.

6.1.4 Dominant SE theories guiding teaching, learning, and assessment practices

The assumptions and principles derived from the synthesis of several educational, psychological, sociological, and philosophical perspectives and theories guide the teaching, learning, and assessment practices at HEIs. In fact, the application of major learning theories is manifested in the specific pedagogical processes and procedures employed to promote students' learning and achievement of desired outcomes. Empirical research on students' college experience by Astin (1984, 1993), Coates (2005), Kuh (2001, 2003), Pace (1968), Pascarella (1985), Pascarella and Terenzini (1995), among many others, uncovered several effective pedagogical practices that contribute to student learning. In addition, scholars attempted to explicate the association between the pedagogical practices, SE, and college outcomes (Maloshonok, 2014). Accordingly, the examination of the teaching, learning, and assessment methods used inside and outside the classroom informs the type of engagement theories that guide the teaching, learning, and assessment practices at HEIs.

Using this empirical underpinning, the SE theories that shape the teaching and learning practices, student learning, and graduate outcomes at Ethiopian HEIs were explicated by carefully examining the observations and reflections made on the assumptions, goals, and objectives of HE policy, strategy, structure, and regulatory frameworks. In addition, the roles of students and the nature of educational experiences stressed in undergraduate curricula and in teaching,

learning, and assessment processes and practices were carefully synthesized in the effort to identify the dominant SE theories.

The literature review in Chapter 2 revealed five major SE theories: *behavioral, constructivist, psychological, socio-ecological*, and *synergetic* (e.g., Kahu, 2013; Lawson & Lawson, 2013; Zepke, 2017). Each theory offered different explanations of the nature of engagement and types of educational experiences, the roles of students and learning environments, and the factors affecting SE and learning. For instance, the behavioral theory of SE gives prominence to measuring the amount of effort and time students invest in their learning and the institutional arrangements to facilitate SE. By contrast, the psychological perspective stresses the importance of considering several psychological (e.g., behavioral, cognitive, emotional, and motivational) aspects of SE, rather than relying solely on observable behaviors (e.g., amount of time and effort spent on course materials). Stressing the interaction of students with objects, people, and the surrounding environment, the constructivist view of SE considers the learner to be an agent in the process of constructing meaning and experience. Accordingly, it places greater emphasis on the design and implementation of a learner-centered and -controlled learning environment. Socio-ecological theories hold the view that SE should be seen holistically, with due consideration of the role of the social setting in influencing SE and students' success—or lack thereof—in learning. In this view, the theoretical framework used in designing the major components of the curriculum (e.g., rationale statements, learning outcomes, subject matter content, and teaching, learning, and assessment processes) influences the level of SE, educational experience, and achievement of outcomes.

The analysis of the voluminous qualitative data in the first phase of the present study revealed that HE and QA policies and strategies clearly emphasize promoting the development of students' academic, behavioral, cognitive, and affective

outcomes. In these provisions, improvement in students' scientific, technical, creative, problem-solving, innovative, entrepreneurial, and work-related skills and competencies was emphasized. The policy and strategy documents also gave prominent importance to the development of students' citizenship, lifelong learning, and commitment to enhancing their role in addressing the social, economic, political, and environmental challenges that Ethiopia is facing. Similarly, the curricular provisions stressed the design and implementation of outcome-based education and student-centered teaching, learning, and assessment methods and procedures. In addition, they advocate heightening students' responsibility, sense of ownership, independence, and belongingness in the effort to maximize students' educational experiences. The HE regulatory frameworks, meanwhile, underscore the importance of creating the necessary governance structures and provision of required educational resources and infrastructures to advance students' involvement in decision-making, teaching, and learning processes. The synthesis of HE and QA policies, strategies, and regulatory provisions and program curricula places students at the center of the Ethiopian university system.

In addition, a careful analysis of the educational goals and objectives established and the teaching, learning, and assessment processes advocated in these provisions reflects the central notions of most of the major SE theories discussed in the present study. For example, the role of students was framed by emphasizing their active involvement in classroom teaching and learning, collaborative work, decision making, and enriching workplace and community-centered educational experiences. Though the degree of influence varied, the analysis revealed that the central themes of different SE theories shape SE conceptions, students' roles in the teaching and learning process, and determination of students' outcome measures.

Three SE theories—the behavioral, constructivist, and socio-ecological— guide and shape the determination of educational outcomes and competencies, the nature of educational experiences, and the nature and degree of SE in classroom,

on-campus, and off-campus educational settings. This makes the identification of a single SE theory to explain the nature and types of SE from Ethiopian HE perspectives challenging. Most importantly, the use of measurement tools that emphasize the assessment of certain SE theories or assumptions may not provide a holistic account of SE data. This makes the selection and use of a robust theoretical model that lays the foundation for the design and use of a relevant survey instrument essential. Therefore, the determination of an appropriate SE survey instrument was made based on the potential of the instrument to allow the measurement of different SE concepts, dimensions, and typologies derived from a number of theoretical perspectives. In addition, the importance of the instrument in assisting the measurement of broader social, institutional, and personal factors have a bearing on SE and the development of academic, social, and work-related skills and competencies.

6.2 SE and the development of student experiences and outcomes

This section discusses the extent to which transforming SE classroom, on-campus, and off-campus educational experiences and learning outcomes were emphasized in Ethiopian public and private universities. The discussion was framed by the qualitative themes generated in the first phase and supported by relevant literature.

6.2.1   HE polices, strategies, and regulatory frameworks

The emphasis placed on to SE and the transformation of students' educational experiences in HE polices, strategies, and regulatory frameworks play a crucial role in promoting students' learning, achievements, and graduate outcomes (Coates,

2005; Trowler, 2010). Policies set out intentions, strategies provide directions, and regulatory frameworks infuse the engine by instilling mandates, structures, and infrastructures. This study seeks to uncover the emphases placed on enhancing SE, students' learning experiences, and the improvement in their academic, social, and work-related outcomes. The findings of the present study show that HE policies (MOE, 1994, 2018; MOSHE, 2020) emphasize advancing students' academic, community, and workplace engagement. Finally, the development of students' behavioral, cognitive, and affective outcomes were given priority.

As to strategic frameworks (e.g., MOE, 2005, 2010a, 2015a, 2021), the first three strategies (ESDPs I, II, and III) place greater importance on the fulfillment of the required inputs (physical, human, material, and financial resources and infrastructures) to promote the expansion of HE in Ethiopia. The next three strategies (ESDPs IV, V, and VI), however, give prominence to improving students' outcomes and the quality of HE in Ethiopia. Accordingly, enhancing the quality and relevance of academic curricula, the quality of students learning experiences, and students' achievements of desired outcomes receive greater attention. This shift in emphasis calls for the implementation of student-centered teaching, learning, and assessment processes. In addition, the engagement of students in workplace and community-based educational experiences is given due attention to boost students' graduate outcomes and achievement of policy benchmarks.

The regulatory frameworks (Federal Democratic Republic of Ethiopia, 2003, 2009, 2019) stress establishing HE governance and leadership structures, mandates, duties, and responsibilities. The proclamations also provide detailed provisions on QA systems and curricular design, development, implementation, and evaluation processes. They also enumerate the role of students in teaching, learning, and assessment processes and practices. Greater emphasis is placed on the design and implementation of engaging, active, and student-centered teaching, learning, and

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assessment process. SE in decision-making process and various forms of enriching educational activities (e.g., internships, placements, and practical attachments) receives high priority. In this regard, it is worth reflecting on Article 38 of the 2019 proclamation (No. 1152). This article explicitly provides students the right to enjoy the freedom to learn with appropriate opportunities and conditions in the classroom, on campus, and in the larger community (p. 11474). This provision is crucial, as it lays the legal foundation for the creation of educational opportunities and the provision of the necessary resources and infrastructures to promote the engagement of students in classroom, on-campus, and community-based learning experiences.

Thus, national polices, strategies, and regulatory frameworks have clearly addressed the issue of SE. In fact, students' active involvement in teaching, learning, assessment, and decision-making processes is considered essential to assisting the development of their academic, social, and work-related skills. Further, SE in enriching educational experiences is crucial to enhancing student outcomes and the quality of education in general.

Although the policy intentions, strategic directions, and regulatory provisions emphasize the development of students' academic, social, and work-related skills; SE in quality educational experiences and the achievement of outcomes remained very low in practice. The review above showed that the quality of education in Ethiopian HEIs has deteriorated (MOE, 2015a, 2018, 2021; MOSHE, 2020). To gain insights on this point, the present study explores policy- and strategy-related factors that affect the level of SE, the quality of student learning, and student outcomes. The implementation of HE policy and strategic frameworks has been affected by a number of factors. Among other issues, the emphasis placed on the development of the learner's social, physical, psychological, professional, spiritual, and cognitive competencies, skills, and learning outcomes was low. In addition, the

policy and strategic provisions were limited in rapidly identifying students' talents, abilities, interests, learning difficulties, and cognitive styles. In addition, a lack of institutional capacity, limitations in providing the required resources, and a mismatch between the labor market demands and the competence level of graduates affected the successful implementation of HE policy and strategic directions (MOE, 2018; MOSHE, 2020). Ultimately, the policy intentions and strategic provisions were not implemented as anticipated.

6.2.2 National and institutional QA policies, guidelines, and practices

The implementation of national HE policies, strategies, and regulatory promulgations rests on the capacity of institutions, which are expected to establish the necessary structures, systems, programs, processes, and resources to ensure the successful implementation of policy and strategic intentions. Among other factors, institutional QA systems and processes play a significant role in improving the quality and relevance of academic programs, students' educational experiences, and student outcomes (Bishop, et al., 2012; Carmichael et al., 2001; Harvey et al., 1993b). This study also seeks to assess the extent to which national and institutional QA practices emphasize enhancing the quality of students' educational experiences and achievement of the desired outcomes. In their effort to improve the quality of education in HEIs, national and institutional QA policies, strategies, and regulatory provisions stress the development of students' academic, social, and work-related skills. The current external quality audit policies and institutional IQA guidelines emphasize evaluating the quality and relevance of undergraduate curricula and teaching, learning, and assessment practices. In addition, the rate of student involvement in classroom, on-campus, and off-campus learning experiences and the provision of the necessary resources and infrastructures to

facilitate the achievement of the mandated quality standards are emphasized in QA frameworks.

However, there is a mismatch between these national and institutional QA policy and strategic intentions and the actual practices observed. For instance, the external quality audit practices and institutions' internal QA processes focus on ensuring compliance with a predetermined set of processes and procedures. Accordingly, compliance in using budgets, progress made in launching new programs, and enrollment and graduation rates. In addition, the national external audit quality process emphasizes evaluating the fulfillment of educational inputs (e.g., required number of academic staff with certain types of degrees and library, laboratory, and workshop resources) rather than evaluating the quality of processes and outputs, which is ultimately related with SE an the achievement of learning and graduate outcomes. It is essential to note that the evidence sought to judge the quality of education provided by public and private universities generally overlooks student-related data, notably the quality of SE in classroom, on-campus, and off-campus educational experiences, learning achievements, and the improvement of student outcomes.

The quality audit and assurance process have been criticized for its emphasis on measuring students' academic engagement in terms of class participation, group discussions, time spent studying course materials, with students' social and workplace engagement receiving less attention. The emphasis on measuring students' behavioral engagement undermines the emphasis placed on measures of students' cognitive, emotional, and community engagement. Moreover, the implementation of existing national and institutional QA policies, strategies, and guidelines suffers from a lack of clarity, a top-down mentality, and the failure to consider the actual context in which colleges, departments, and programs operate. Existing QA practices are limited in enforcing accountability and responsibility

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measures at all levels, so an institution's failure to transform students' learning experiences and outcomes and the quality of education was not followed up with any consequences at either the institutional or individual levels. This plays a part in the observed mismatch between policy and practice and in the limitations of QA practices in Ethiopian HEIs.

Numerous studies on the role of QA systems and practices in enhancing the quality of SE, the college experience, and student outcomes signified the importance of placing students' learning and improvement in student outcomes at the center of HE QA policy and strategic discourses (Carmichael et al. 2001; Coates, 2005, 2009; Kuh, 2001; Kuh et al. 2008; Trowler, 2010). Empirical findings suggest that SE transforms the quality of students' college experience by improving the quality of teaching and learning, increased institutional responsiveness, and higher academic standards (Gvaramadze, 2011). Coates (2005) reminds us that measures of SE data serve as important tools in judging the quality of HEIs. Process-related measures indicate the kind of educational practices and institutional arrangements that could lead to high-quality learning outcomes. Therefore, efforts to enhance the quality of HE need to consider measures of students' college experiences and outcomes. This entails basing decisions pertaining to quality and QA practices on the rates and levels of SE in purposefully designed educational experiences. This in turn requires a change in the perceptions about and conception of HE quality from the traditional models to emerging learning-, experience-, and outcome-centered models. In addition, QA processes and practices need to assess institutional, stakeholder-, and community-level measures to examine their role in the development of students' academic, social, and work-related skills and competencies.

6.2.3 The role of leadership and governance structures

The existence of good governance and responsive leadership is crucial to SE and achievement. Effective leadership and governance systems ensure that structures are responsive, inspire staff commitment and motivation, and instill organizational values and the culture essential to transforming students' educational experiences (Angelle, 2018). In this milieu, the 2020 HE Policy and Strategy closely ties the effectiveness of HE leadership to performance in teaching and learning, improvement in student learning outcomes, and improved research project outcomes. Therefore, improving leaders' managerial competence and the governance environment in Ethiopian HEIs is given top priority (ETP, 1994; MOE, 2018; MOSHE, 2020). A number of empirical studies have revealed the importance of engaging students in HEI governance and leadership structures, citing benefits such as improving students' decision-making skills (e.g., Luescher-Mamashela, 2013), leadership competencies (Angelle, 2018; Kelly & Azaola, 2016), academic outcomes (Kelly & Azaola, 2016) and democratic cultures (Irish Higher Education, 2016).

On this foundation, the present study explores the role of governance, leadership competence, and commitment in improving SE and the development of students' academic, social, and work-related skills and competencies. The findings indicate that the introduction of decentralized governance systems (ETP, 1994) promoted the representation and involvement of students in the university governance structures. Accordingly, efforts were made to ensure students representation at the classroom, department, college, and senate levels. In addition, student organizations, unions, and clubs were established to boost SE in on- and off-campus extra-curricular activities. Through such platforms, students can voice concerns about academic and non-academic matters, participate in decision-making processes, and actively engage in QA processes. Their representation and

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engagement in leadership, governance, and QA processes was also considered instrumental to promoting institutional accountability and responsibility and to improving their knowledge, skills, and sense of institutional belongingness.

The study also finds a number of factors that impact the effectiveness and efficiency of leadership and governance practices in the case public and private universities. Among other issues, structural problems, limited leadership competence, commitment, and motivation to implement HE and QA policies, strategies, and guidelines obstruct the efficiency and effectiveness of leadership and governance practices. Although the policy and strategic directions advocate the implementation of decentralized HE systems at all levels, the dominance of centralized policy, strategic, curricular, and QA framework development processes influence institutional autonomy, staff commitment, and sense of ownership. This in part impedes the realization of policy and the mandated strategic goals and objectives and addressing the observed gaps between policy and practice.

The existing leadership and governance system also places less emphasis on the development of students' on- and off-campus educational experiences, which has contributed to a deterioration in the quality of student learning and outcomes. To enhance the effectiveness and efficiency of HE leadership and governance, MOSHE (2020) recommends the continued implementation of a decentralized governance system and democratic leadership style and developing leadership capacity, commitment, and motivation as the top strategic priority areas in HE policy. This is expected to improve institutional autonomy, academic freedom, and organizational excellence in Ethiopian HEIs (MOSHE, 2020, pp. 30–31).

6.2.4   HE curriculum, teaching, learning, and assessment practices

The underlying assumptions in designing, implementing, and evaluating undergraduate curricula determine the nature of educational experiences provided

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to students. In addition, the proposed and implemented teaching, learning, and assessment processes and procedures shape students' roles, levels of engagement, and achievement of learning and graduate outcomes (Trowler & Trowler, 2010; Witkowski & Cornell, 2015). Hence, examining the curricular and pedagogical aspects of SE is crucial to understanding the relationship between SE, student learning, and students' achievement of desired outcomes.

To this end, the rationale, objectives and learning outcomes, graduate profiles, subject matter content, and teaching, learning, and assessment methods of the sampled undergraduate curricula across several disciplines were examined. The results of this review revealed that the rationales and graduate profiles of the curricula reflect educational purposes derived from a number of philosophical assumptions. In essence, addressing Ethiopia's economic, social, political, technological, and environmental problems is the central theme of the rationales and graduate profiles stated in undergraduate curricula. While knowledge for its own sake does receive some emphasis, producing a skilled labor force to meet the labor market demands is the primary focus. In addition, the development of students' innate potential and capability is given its fair share in establishing the purposes of the curricula. Hence, the central ideologies of the scholar academic, social efficiency, and learner-centered philosophies all influence the development of the rationales, learning outcomes, and graduate profiles found in the current undergraduate curricula.

As to the teaching, learning, and assessment processes in the reviewed curricula, the results of the review indicate the adoption of a pragmatic approach. The design, selection, and implementation of teaching, learning, and assessment processes, methods, and procedures were shaped by the assumptions of several educational philosophies (e.g., perennialism, essentialism, progressivism, and existentialism). The inclusion of different forms of teacher- and student-centered

methods and processes in the curricula is testimony to the claims made above. In addition, the integration of various forms of classroom, on-campus, and off-campus educational experiences signified the importance attached to the development of students' behavioral, cognitive, and affective outcomes. This also suggested the adoption of eclecticism in selecting from diverse didactic approaches and strategies. The flexibility observed in integrating assumptions, methods, and processes derived from different thoughts and principles plays a valuable role in ensuring that curricula are inclusive enough to meet the diverse needs and interests of learners. In addition, it creates a conducive environment to promote SE and students' development of academic, social, and work-related skills and competencies.

Similarly, the findings of this study also reveal limitations associated with the reviewed curricula. The reflections of most respondents indicated that the relationships between the curriculum rationales, the result of needs and market analyses, and the generic and specific competencies identified were not aligned. In addition, clear justifications on the need to launch an academic program, the knowledge and skill gaps the program intends to fill, and the contribution of the program to the achievement of national and institutional policies and strategies were only loosely provided. Furthermore, the few justifications that were provided were not supported using statistical data, empirical evidence, and national or global trends and experiences. The emphasis placed on the development of transferable skills, entrepreneurship, and participation in global society was lower than the focus on disciplinary knowledge and methodological skills. Moreover, the balance between the cognitive, psychomotor, and affective domains of learning outcomes was not maintained in establishing program learning outcomes and graduate profiles. Instead, students' acquisition of subject matter knowledge and achievement of lower- and middle-level learning outcomes were given priority. This indicated that the integration of the higher-order learning outcomes and

diverse learning experiences that are essential to transforming a student's academic, social, and work-related skills and competencies was undermined.

In most reviewed undergraduate curriculum documents, the nature of the disciplines and the learner was not carefully examined in selecting the teaching, learning, and assessment processes, procedures, and techniques. This limits the ability to address students' individual and collective needs, interests, and aspirations and thus affects the quality and relevance of the curriculum to the learner and the learning context. From the reflections offered by interviewees, it was apparent that the actual teaching, learning, and assessment practices observed in both public and private universities was dominated by a teacher-centered pedagogy. Limitations in implementing student-centered teaching, learning, and assessment have hindered the creation of a genuinely stimulating and challenging learning environment. Indeed, the design and implementation of current undergraduate curricula appears to have contributed to the deterioration of the quality of students' educational experiences, learning achievements, and educational outcomes.

6.2.5 Transforming students' experience, learning achievements, and outcomes

Whether public or private, universities are expected to transform students' educational experiences, learning achievements, and outcomes. In fact, these measures are often used to measure the effectiveness and quality of education provided by a given university. The SE literature provides compelling evidence on the importance of engaging students in different forms of on- and off-campus educational experiences in transforming student learning and achievements and the quality of education (e.g., Coates, 2009; Kuh, 2001). Accordingly, the present study explores the extent to which HEIs have actually organized various forms of

enriching educational activities for students with the intention of enhancing the quality of their learning and their achievement of expected outcomes. As discussed above, HE and QA policy and strategic provisions emphasize the engagement of students in practice-oriented teaching and learning processes. These policies and strategic frameworks also require HEIs to devise effective structures that allow students to engage in community-based educational experiences. Furthermore, the regulatory provisions mandate HEIs to design experience-centered curricula, establish closer links with the community, industry, and governmental and non-governmental organizations. Engaging students in on- and off-campus educational experiences is thus considered essential to enhancing their employability, life skills, industrial competencies, and work-ready attitudes. As a result, organizing and supporting SE in practical attachments, internships, and placements has been stipulated as one of the responsibilities of both public and private HEIs.

Though policy, strategy, regulatory, and curricular intentions encourage HEIs to provide the necessary support structures and resources to engage students in various forms of on- and off-campus educational experiences, the implementation of these intentions has been affected by a number of factors. Among others, the successful implementation of practical attachments, internships, and placement opportunities was negatively affected by a lack of essential educational resources and facilities. In addition, the absence of effective coordination, monitoring, and evaluation schemes has affected the quality of experiences students obtain from their engagement in CBE, industrial placements, and practical attachments. The enthusiasm, commitment, and motivation among students to achieve more and succeed in the world of work have been hampered by the spotty implementation of enriching educational experiences. Moreover, instructors' lower motivation, commitment, and limited pedagogical competence have been found to undermine the development of student employability and other lifelong learning skills. Institutional, leadership, instructors, and student-related factors thus all play a role

in obstructing the effective implementation of policy and strategic priorities designed to promote students' on- and off-campus educational experiences. Empirical evidence suggests that SE on or off campus is related to educational leaders' and instructors' commitment, the perceived value of such educational experiences, and relationships with students to achieve educational goals and encourage high academic success for all learners (Appleton & Lawrenz, 2011).

6.2.6   Institution-, instructor-, and student-related factors affecting engagement, learning achievement, and outcomes

The first-phase, qualitative study revealed four layers of factors affecting SE, learning achievements, and students' development of academic, social, and work-related competencies. The first factor, at the national level, involves policies, strategies, and curricula; the next three are institutional-, instructor-, and student-related factors. Current HE and QA policies and strategies have been criticized for their failure to devise and implement effective monitoring and evaluation systems to ensure that policy intentions and strategic provisions are actually achieved as they were intended. The emphasis placed on expanding HE, increasing students' enrollment, and supplying qualified teachers and the necessary educational resources and infrastructures contributes to the observed limitations in balancing the demands of the labor market and graduates' competence levels.

The failure to devise and implementing relevant academic curricula, combined with the dominance of teacher-centered teaching, limited opportunities for practice-oriented educational experiences, and poor assessment practices, affect graduates' employability and life skills. Similarly, the development of students' classroom, on-campus, and off-campus educational experiences was affected by institutional factors such as a lack of required educational inputs, poor leadership

and management practices, limited instructor and leadership autonomy and academic freedom, a lack of accountability and responsibility, a poor working environment, lower incentives, and underdeveloped student support services. In addition, the role played by HEIs in developing graduates' employment, job-seeking, and entrepreneurial capabilities were critically reviewed. The government, key stakeholders, and the larger community have begun questioning the quality of educational experiences and work-related competencies possessed by graduates.

Moreover, several students- and instructor-related factors affect SE and students' college experiences and outcomes. Among other issues, factors such as instructors' poor pedagogical competence, limited subject matter knowledge, lack of professionalism, and diminished workplace commitment and motivation all minimize the role of instructors in implementing student-centered teaching and outcome-based educational experiences. Similarly, student factors—poor entry behavior, declining value of education, a lack of commitment, motivation, and aspiration to achieve more, active engagement in disruptive behaviors, spending time on social media, and seeking shortcuts to earn passing grades and graduate—influence the amount of effort and time they spend on academic tasks. This in turn affects the level of their academic engagement and achievement of expected learning outcomes.

Therefore, factors operating at different layers of the system affect SE, the quality of educational experiences, and student outcomes. It is important to note that most of the factors found using the qualitative themes generated from the interviews and document reviews have also been observed in quantitatively oriented empirical studies. For instance, factors such as instructors' ability to implement motivating teaching methods (Cents-Boonstra et al., 2020), the perceived importance of engagement strategies (Martin & Bolliger, 2018), alienated or disengaged students (Mann, 2001; Trowler, 2010), and learning environments and technology (Bond & Bedenlier, 2019; Schindler et al., 2017) have been found

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to have significant impacts on SE levels and on outcomes. In addition, factors such as teacher–student relationships (Zepke & Leach, 2010), the quality of teaching and institutional support (Zepke, 2018), student-to-student interaction and collaboration (Nelson Laird & Kuh, 2005; Zepke & Leach, 2010), and the relevance of curricular content (Coates, 2007; Xiao et al., 2019) have been reported as affecting SE and the achievement of desired outcomes. Therefore, student motivation, the quality of student-teacher interaction, teaching strategies, learning environment, and instructional resources all play a role in influencing the rates and levels of SE and the development of students' academic, social, and work-related skills.

The above discussion shows that policy-, curricular-, institutional-, instructor, - and student-related factors play major roles in influencing SE levels and the quality of students' learning achievements. Accordingly, efforts to conceptualize or theorize and measure SE and its role in enhancing student achievement and outcomes and the quality of education need to carefully consider factors related to policy, strategy, structure, curriculum, teaching and learning, instructors, and students.

6.3 SE measures, variables, and instrumentation

One of the three research questions in the present study involves examining the relationships between SE, students' college experiences, and student outcomes. Addressing this research question entailed developing or choosing an appropriate survey instrument to measure engagement concepts, dimensions, typologies, and theories generated from the careful analysis and synthesis of the first-phase, qualitative study. Accordingly, this section is devoted to choosing an appropriate survey instrument to test SE concepts, theoretical assumptions, typologies, and the

other factors explored. It also extensively discusses the relevance and appropriateness of the survey instrument in enabling the collection and analysis of valid and reliable SE data from Ethiopian HEI perspectives.

6.3.1 Dominant SE measures and variables

Grounded in the qualitative interviews and document analysis, this study explores SE and its role in transforming students' academic, social, and work-related skills and competencies. It also explores the extent to which SE in classroom, on-campus, and off-campus educational experiences is emphasized in Ethiopian HE and QA policies, strategies, curriculum frameworks, teaching, and learning and assessment practices. Moreover, the study explicates the major factors that influence SE and learning achievements and outcomes.

Using the codes and themes generated from interviewees' reflections, every effort was made to identify the dominant engagement concepts, conceptual organizers, typologies, dimensions, and theoretical underpinnings from an Ethiopian HE perspective. Such explications were instrumental in identifying context-based SE variables and measures that were later used to compare and contrast with the dominant SE themes and indicators used in established empirical studies. Based on the comparative assessment results, an appropriate SE survey instrument was located and tested during the second, quantitative phase of the study. Table 18 presents the concepts, variables, and measures developed using the themes generated in the first-phase, qualitative analysis.

Table 18. Dominant SE measures and variables

Generated Concepts	Engagement dimensions/typologies/organizers	Variables	Measures	Supporting literature
Experience-centered curriculum development	Academic/forming a curriculum	• Types of educational experiences emphasized • Disciplinary variations	• Types of direct and indirect experiences • The nature of disciplines	Kahu (2013); Ashwin and McVitty (2015)
Achievement of learning and graduate outcomes	Academic/forming understanding	• Students' performance and achievement levels • Degree of employability	• CGPAs • Graduate employment rates	Pike and Kuh (2005); Coates (2007); Leach and Zepke (2011); Lawson and Lawson (2013); Ashwin and McVitty (2015)
Student-centered teaching and learning processes	Behavioral/academic/ cognitive/motivation and agency/intense	• Teaching and learning strategies, methods, and procedures	• Students' role in the instructional process • Time spent studying course materials • Engagement in constructing knowledge and skills • Sense of autonomy and independence	Pike and Kuh (2005); Coates (2007); Trowler (2010); Leach and Zepke (2011); Lawson and Lawson (2013); NSSE (2013); Quaye and Harper (2014); Ashwin and McVitty (2015)
Deep learning strategies	Cognitive/intense	• Level of academic challenge	• Emphasis given to metacognitive, analytical, and problem-solving skills • Reflective and integrative learning	Coates (2007); Leach and Zepke (2011); Lawson and Lawson (2013); NSSE (2013)
Employability skills	Youth-community/enriching educational experiences	• Opportunities for on- and off-campus educational experiences	• Level of engagement in placements, practical attachments, and internships	Trowler (2010); NSSE (2013); Quaye and Harper (2014);
CBE experiences	Youth-community/ forming a community /collaborative	• Opportunities to practice lessons taught in social settings	• Engagement in CBE • Engagement in service learning • Solving societal problems	Coates (2007); Trowler (2010); NSSE (2013); Quaye and Harper (2014); Ashwin and McVitty (2015); Zepke (2015);
Engaging assessment and feedback	Behavioral/cognitive	• Assessment and feedback strategies, methods, and procedures	• Degree of emphasis on higher-order learning • Use of diverse strategies • Level of competence assessed	Lawson and Lawson (2013); Kahu (2013)
Peer and collaborative learning	Interpersonally supportive/inter-relational/transactional /collaborative	• Opportunities and resources to facilitate peer and collaborative learning	• Level of student-to-student interaction • Integration of collaborative learning • Collaborative learning centers on and off campus	Pike and Kuh (2005); Coates (2007); Leach and Zepke (2011); Lawson and Lawson (2013); NSSE (2013)
Quality of	Inter-	• Diverse experiences	• Level of interaction and	Pike and Kuh (2005);

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Generated Concepts	Engagement dimensions/typologies/organizers	Variables	Measures	Supporting literature
teacher–student interaction	relational/collaborative/transactional	organized to facilitate interactions	cohesion • Institutional support schemes	Trowler (2010); Leach and Zepke (2011); Wimpenny and Savin-Baden (2013); NSSE (2013); Quaye and Harper (2014)
Enabling learning resources	Institutional support	• Provision of diverse educational resources and infrastructures	• Access to and use of learning resources • Access to and use of supportive instructional technologies • Access to and use of on- and off-campus resources	Trowler (2010); Leach and Zepke (2011); NSSE (2013)
Committed, enthusiastic, and motivated staff	Motivation and agency/intense	• Teaching attitude, passion, and agency	• Level of enjoyment and excitement, • Self-efficacy and autonomy • Agency to make a difference • Engagement in professional development • Level of integrity and respect for diversity	Coates (2007); Leach and Zepke (2011); NSSE (2013)
Students' commitment, motivation, and interest in learning	Motivation and agency/intense	• Sense of belongingness, agency, and ownership established	• Level of interest and excitement in learning • Level of attachment and belongingness with the institution • Level of effort and mental investment put in to study coursework • Goals and expectations to achieve more • Tendency to cheating and plagiarism	Coates (2007); Leach and Zepke (2011); NSSE (2013)
Governance and leadership	Institutional support	• Supportive environment	• Institutional goals and expectations • Supportive structural arrangements • Student leadership • Degree of accountability and responsibility	Kuh et al. (2005); Coates (2009); Trowler (2010); Kahu (2013); NSSE (2013)
Effective partnerships with stakeholders	Non-institutional support/socio-ecological/youth-community	• Partnership synergy and functioning	• Level of commitment • Degree of mutuality • Level of ownership and accountability • Communication and collaboration • Level of outcomes	Coates (2009); Leach and Zepke (2011); Kahu (2013); Lawson and Lawson (2013); NSSE (2013); Zepke (2015)

Generated Concepts	Engagement dimensions/typologies/organizers	Variables	Measures	Supporting literature
			achieved	
Establishing a quality culture	Engagement as partners/engagement in QA	• Quality improvement and sustainability	• Degree of emphasis on student outcomes • Level of infrastructure quality • Leadership commitment • Team work and collaboration • Emphasis on QE • Communication and feedback	Coates (2009); Buckley (2015), Ashwin and McVitty (2015)

Source: Themes and codes generated from qualitative interview and document data (June–August, 2020)

As Table 18 shows, the concepts generated by the extensive qualitative data synthesis represent a wide range of engagement typologies and dimensions. In addition, the variables and measures that were derived inductively from engagement concepts, dimensions, and typologies reveal the areas of emphasis in dealing with SE in Ethiopian HE policies, strategies, and practices. The identification of these variables and measures was instrumental in determining the nature and type of data that needed to be collected in the subsequent phase of the study. Moreover, the research that was consulted for both the qualitative and quantitative enquiries corroborated the SE concepts, typologies, and dimensions generated in the qualitative phase of the study. This finding strengthened the reflections based on the qualitative data and enhanced the validity of inferences made to inductively determine the appropriate SE survey instrument.

6.3.2   The selection of an SE survey instrument relevant to Ethiopian HEIs

A number of instruments have been used to measure the level of SE, on-campus and off-campus educational experiences, and learning outcomes. Though the existing instruments are founded on similar theoretical assumptions, they possess

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distinct features, strengths, and limitations. Furthermore, the contexts in which they were used to measure SE, educational experiences, and outcomes also differ. This calls for a careful examination of the relevance and appropriateness of the instrument selected for a particular HE setting, learner characteristics, and resource conditions (Tadesse et al., 2018). Despite the importance of context, the NSSE (with its home at Indiana University in the United States) and similar efforts, like the Canadian and Australian surveys of student engagement, is the dominant tool for measuring SE across the globe.

Influenced by Astin's student involvement theory (1984), Pace's quality of students' college experience (1984) and Tinto's theory of academic and social integration (1993), the NSSE was designed to measure students' college experience, learning environment, and the teaching and learning processes and institutional support to which they are exposed (Kuh, 2001, NSSE, 2013). It is widely considered a valid tool for determining HE quality and provides a holistic perspective, alongside other measures of QA and university ranking systems (Coates, 2005; Kuh, 2009; Tadesse, et al., 2018). The NSSE measures the amount of time and quality of effort that students invest in their studies (Kuh, 2009; NSSE, 2013) and assesses how institutional policies, resources, and courses encourage students to engage in purposefully designed educational activities (Buckley, 2015, p. 5; Coates, 2005). The survey gives priority to measuring the activities and experiences that have been empirically linked to desired college outcomes (Kuh, 2001; Low, 2018). It thus provides evidence on the impact of institutional environment (policies, strategies, and resources) on the quality of student learning, persistence, and achievement. It also delineates measures of accountability and responsibility that are essential to ensuring educational quality (Coates, 2009; Kuh, 2009; NSSE, 2013).

The NSSE has undergone a number of major and minor revisions over the last 20 years. Initially, it was designed to measure the behavioral and perceptual

components of engagement. With later modifications, however, the cognitive and emotional dimensions of engagement have been incorporated into the NSSE survey instrument (NSSE, 2013). Apart from this, the NSSE provides results on six High-Impact Practices, appropriately named for their positive associations with student learning and retention. High-Impact Practices (HIPs) represent enriching educational experiences that can be life-changing. They typically demand considerable time and effort, facilitate learning outside of the classroom, require meaningful interactions with faculty and other students, encourage collaboration with diverse others, and provide frequent and substantive feedback (NSSE, 2020). Table 19 presents the underlying themes and indicators embedded in the NSSE.

Table 19.   NSSE themes, indicators, and components

Instruments	Themes	Indicators	Number of Items
SE Survey	Academic Challenge	Higher-order learning	4
		Reflective and integrative learning	7
		Learning strategies	3
		Quantitative reasoning	3
	Learning with Peers	Collaborative learning	4
		Discussion with diverse others	4
	Experiences with Faculty	Student-faculty interactions	4
		Effective teaching practices	5
	Campus Environment	Quality of interaction	5
		Supportive environment	8
	High Impact Practices	Service learning	6
		Learning community	
		Research with faculty	
		Internship or field experience	
		Study Abroad	
		Culminating senior experience	

Source: NSSE (2020).

To facilitate consideration of and discussion about the quality of the student experience from the perspective of faculty, a survey instrument known as the Faculty Survey of Student Engagement (FSSE) was designed by Indiana University

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Center for Postsecondary Research. The FSSE was developed to complement the NSSE by measuring faculty expectations and student engagement (FSSE, 2018). Similar to the NSSE, the FSSE has ten scales that are grouped within four overarching themes. It also incorporated engagement indicators designed to measure SE in HIP (See Table 19 above). The FSSE is considered essential in providing universities with diagnostic, actionable information that can inform efforts to improve the experience and outcomes of undergraduate education. In addition, the findings from the FSSE has the potential to inform efforts made to enhance student learning and success and the identification of the strength and limitations observed in making classroom and the campus environments more cohesive with student needs and expectations (FSSE, 2018).

Despite its influence and broad acceptance, the NSSE has been criticized by a number of scholars. For instance, Burch et al. (2015) argue that the NSSE is too broad and offers little theoretical explanation of the factors that affect SE. In addition, it places greater importance on the role of institutions, while the role of instructional faculty is underemphasized. Moreover, they argue that the NSSE does not allow the measurement of course- or classroom-level engagement because it focuses on measuring aggregate university-level engagement. Consequently, they proposed the use of a combination of educational in the form of Astin's student involvement theory (1984, 1993) and management theories (flow theory and the job characteristics model) to measure facilitators and outcomes of SE. They developed and tested an SE scale that encompassed physical engagement, emotional engagement, and cognitive engagement in class and cognitive engagement outside class. Based on their findings, they conclude that measuring SE at the class or course level is critical to developing strong curricula and improving instructional delivery techniques (pp. 225–227).

Similarly, Zhoc et al. (2018) criticize the NSSE, stating that the concept of engagement as stipulated in the instrument is overly focused on students'

observable behaviors, while the emotional aspect of engagement is underrepresented. In addition, the authors argue that the instrument fails to include items that measure students' use of the internet and other technologies in their learning. They insist that the integration of students and institutional measures of engagement in the NSSE creates complications in separating engagement indicators from engagement facilitators. Accordingly, the authors proposed and tested a five-factor model of student engagement in higher education as an alternative. The proposed factors are academic engagement, cognitive engagement, social engagement with peers, social engagement with teachers and affective engagement (pp. 4–6). Based on their findings, the authors reported several merits of using their alternative Higher Education Student Engagement Scale. According to their findings, evidence for the reliability and validity of their instrument indicated the efficiency and appropriateness of the instrument in measuring SE in HEIs. The authors also noted some limitations in their study, including not addressing the issue of culture and diversity in measuring SE. In addition, the size and homogeneity of the samples used for their testing limited the generalizability of their findings. Finally, the use of self-reported CGPAs and outcome measures may have produced biased responses that might not reflect actual student behaviors.

Another area of concern raised about the use of NSSE involves the HE governance perspective. Influenced by neoliberalism, Gorman (2012) argues that the NSSE is making HEIs more responsive to market forces than promoting the well-being of society. The author claimed that the NSSE promotes the homogenization of classroom practices and erodes the autonomy of faculty in the educational process (p. xiii). On the other hand, Campbell and Cabrera (2011) focus on criticizing the construct and predictive validity of the five NSSE benchmarks. They argue that the benchmarks were highly correlated because of lower item loadings and reliability scores. Their findings suggest that the NSSE

benchmarks did not predict CGPAs for the institution in which their study was conducted, and the authors conclude that the observed limitations of the NSSE instrument obscure its ability to serve as a measure of institutional quality. However, these authors also noted various limitations in their study. It was conducted in a single research-extensive institution, so different types of institutions and other contextual variations could lead to different results.

Various study results underscore the role of contextual differences in influencing the measurement of engagement perspectives. For instance, Hagel et al. (2012) evaluated the validity of the NSSE and AUSSE scales from an Australian HE perspective. Their findings indicate a lack of strong support for the predictive validity of the NSSE scales and their relationship with student outcome measures (p. 483). By contrast, Tadesse et al. (2018) found that the AUSSE scales showed evidence of construct validity and that the included items had acceptable discriminant validity when the instrument was tested in one first-generation Ethiopian University. Hence, differences in students' demographic characteristics and institutional contexts do appear to play a significant role in influencing the validity and reliability measures of SE perspectives.

Despite the concerns outlined above, the researcher was ultimately inclined, for several reasons, to use the NSSE and FSSE instruments to test the concepts, variables, and measures generated by the in-depth analysis of the qualitative themes. First, the NSSE is the most popular and widely used instrument to measure SE and college experience (Zhoc et al. 2018) and is considered a valid instrument to measure SE and institutional quality (Campbell & Cabrera, 2011; Kuh, 2009; NSSE, 2013). Second, most of the limitations discussed by critics of the NSSE appear to have been addressed since 2013. The development of NSSE 2.0 in 2013 was made after carefully reviewing large-scale empirical evidence, inputs, and recommendations from participating institutions and staff. As a result, the previously designed survey items and engagement benchmarks were revised. In

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addition, later improvements made to the NSSE ensured the inclusion of a few affective dimension questions and engagement in online and other forms of digital technologies (NSSE, 2020, 2021a). Subsequent revisions of the NSSE and FSSE have enhanced the reliability and validity of the instruments (BrckaLorenz, Chiang & Nelson Laird, 2013; Chiang & BrckaLorenz, 2015; NSSE, 2013). Third, the engagement concepts, typologies, and dimensions explicated from the qualitative data analysis resemble the major NSSE and FSSE themes and indicators (see Table 18). This close resemblance provides a foundation upon which the determination and final selection of an appropriate survey instrument was made. Choosing the NSSE enabled a cross-examination using quantitative measures of the concepts, variables, and measures identified during the qualitative phase of the study. This facilitated the process of testing the validity and reliability of the engagement concepts, dimensions, typologies, and theoretical frameworks generated, which were mostly associated with transforming the quality of students' college experience, learning gains, and outcomes in Ethiopian HEIs. Table 20 summarizes the comparisons made between the themes, dimensions, and typologies generated in the present study's first phase with the themes and indicators in the most recent iteration of the NSSE.

Table 20.   NSSE themes and indicators vs. the generated themes, measures and variables

Generated Themes and Concepts	NSSE Themes	Generated engagement dimensions, typologies, and organizers	NSSE Indicators
Experience-centered curriculum development	• Academic challenge	• Academic • Forming a curriculum	• Educational experience • Course engagement
Achievement of learning and graduate outcomes	• Institutional contribution	• Academic • Forming understanding	• Students' perceived gains • Higher-order learning • Reflective and integrative learning
Student-centered teaching and learning processes	• Academic challenge	• Behavioral • Academic • Cognitive • Motivation and Agency • Intense	• Learning strategies
Deep-learning strategies	• Academic challenge	• Cognitive • Intense	• Higher-order learning • Reflective and integrative learning • Learning strategies • Quantitative reasoning
Employability skills	• High-impact practices • Institutional contribution	• Youth-community • Enriching educational experiences	• Enriching educational experiences • Students' perceived gains
Community-based educational experiences	• High-impact practices • Institutional contribution	• Youth-community • Forming a community • Collaborative	• Learning strategies • Community services
Engaging assessment and feedback	• Experiences with faculty	• Behavioral • Cognitive	• Higher-order learning • Reflective and integrative learning • Learning strategies • Quantitative reasoning
Peer and collaborative learning	• Learning with peers • Campus environment	• Interpersonally supportive • Inter-relational • Transactional • Collaborative	• Collaborative learning • Discussion with diverse others • Quality of interaction
Quality of teacher and student interaction	• Experiences with faculty	• Inter-relational • Collaborative • Transactional	• Student faculty interaction • Quality of interaction
Enabling learning resources	• Campus environment	• Institutional support	• Supportive environment
Committed, enthusiastic, and motivated staff	• Campus environment • Time spent	• Motivation and agency • Intense	• Conducive working environment • Time on teaching task • Time spent on research and community services • Belongingness
Students' commitment, motivation, and interest in	• Campus environment	• Motivation and agency	• Conducive learning environment

Generated Themes and Concepts	NSSE Themes	Generated engagement dimensions, typologies, and organizers	NSSE Indicators
learning	• Time spent	• Intense	• Time spent on classroom, on-campus, and off-campus educational activities • Belongingness
Governance and leadership	• Institutional contribution • Campus environment • Student leadership	• Institutional support	• Supportive environment • Student organization • Future prospects
Effective partnership of stakeholders	• High-impact practice • Campus environment	• Non-institutional support • Socio-ecological • Youth-community	• Enriching educational experiences • Community services • Quality of interactions
Establishing quality culture	• High-impact practices • Campus environment • Academic challenge	• Engagement as partners • Engagement in QA	• Effective teaching practices • Course challenge • Course engagement • Conducive learning environment • Enriching educational experiences • Community services • Student-faculty interaction • Quality of interaction • Belongingness

Sources: Themes and codes generated from qualitative interview and document data (June–August, 2020)
Source: NSSE (2020).

Table 20 shows that the dominant engagement themes and indicators use in the NSSE and discussed in the SE literature are closely associated with the engagement themes, concepts, typologies and dimensions derived from the synthesis of Ethiopian HE and QA policies, strategies, and practices. Though there are differences in wording for some of the themes and indicators, the inherent concepts they seek to measure are closely related. For instance, the inherent concept embedded in the academic challenge NSSE theme is represented by the deep learning strategies, student-centered teaching and learning, and experience-centered curriculum themes. In addition, the indicators of the academic challenge

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theme were also closely attuned with the generated engagement dimensions, typologies, and conceptual organizers.

However, there were noticeable variations in the numbers and wording between the NSSE engagement themes and indicators and the themes generated from the qualitative phase of the study. In some cases, an NSSE indicator (e.g., quality of interaction) was found to represent a generated theme. In many instances, the NSSE themes and indicators were repeated to represent a number of separate but interrelated generated engagement themes, dimensions, or typologies. It is important to note the variations observed between the themes or indicators are not associated with variations in the inherent concepts they seek to measure. Such variations might be associated with variations in research design and the methods used to explicate the engagement concepts, measures, and variables in the present study and the NSSE. Contextual variations might also have contributed to the differences. Nevertheless, the observed resemblance and closer association between the NSSE themes and indicators and the generated engagement themes, concepts, dimensions, and typologies provide a powerful justification for the appropriateness of the NSSE instrument to test the findings of the first-phase, qualitative study.

Therefore, the use of NSSE along with the FSSE instrument was considered as helpful in testing the conceptions and assumptions of SE derived from the in-depth analysis of Ethiopian HE and QA policies, strategies, undergraduate curricula, and teaching, learning, and assessment processes and practices. It was also considered essential to uncover students' classroom, on-campus, and off-campus educational experiences and their role in transforming students' learning achievements and their development of academic, social, and work-related skills and competencies. In doing so, it was regarded as providing a quantifiable measure of students' levels of engagement and institutional support schemes that either

support or refute the major findings from the qualitative data analysis and interpretations.

6.4   Chapter summary

This chapter discusses the major findings of the first-phase, qualitative interview and document analysis. Guided by the three research questions of the study as a whole, this chapter examines the concepts, dimensions, domains, and typologies of SE from Ethiopian HEIs perspectives. In addition, the theoretical orientations of SE were explicated from the analysis and synthesis of study participants' reflections and HE and QA policies, strategies, and practices. The effects of national and institutional HE and QA policies, strategies, and regulatory and curricular frameworks emphasized on transforming students' classroom, in-campus, and off campus educational experiences and outcomes were explored. In that process, the relationship between SE, learning achievement, and graduate outcomes were extensively explored. The chapter pinpoints the major institutional, student-, and instructor-related factors that influence students' levels of engagement and their development of academic, social, and work-related competencies.

Grounded in the qualitative interviews and document analysis, this chapter provides a detailed account of the dominant SE concepts, dimensions, and typologies from Ethiopian HE perspectives. Using the engagement concepts, dimensions, and typologies explicated, an effort was then undertaken to identify relevant variables and measures that laid the foundation upon which relevant SE survey instruments could be compared. A comparative analysis of the major engagement concepts, dimensions, and typologies generated from the synthesis of the first-phase, qualitative study with existing SE surveys indicated a close resemblance between the generated engagement themes, concepts, dimensions,

and typologies and the NSSE themes and indicators. Compared to the other options, the NSSE survey instrument was considered appropriate to use quantitative measures to measure and test the inductively generated engagement concepts, dimensions, and typologies. The similarities observed also suggested the use of NSSE would help obtain a valid and reliable measure of SE data from Ethiopian HE perspectives. Accordingly, the subsequent quantitative phase of the study dwells on adapting the NSSE survey instrument to the Ethiopian HE context. This was achieved by conducting pilot testing and collecting evidence of validity and reliability. A detailed discussion of the results of the second-phase, quantitative data appears in chapter seven.

7 QUANTITATIVE DATA ANALYSIS AND INTERPRETATION

This chapter presents and discusses the results of the second-phase, quantitative survey data analysis. The discussion is organized around the three major research questions and supported with relevant research. The discussion is framed in light of the major themes, concepts, dimensions, and theoretical underpinnings that were generated from the in-depth analysis of the first-phase, qualitative data. Moreover, the discussion is crafted to assist testing the qualitative themes, concepts, dimensions, and assumptions of SE based on the NSSE and FSSE surveys.

7.1 Descriptive analysis

In this section, the results of the descriptive analysis of the NSSE and FSSE surveys are presented. The presentation includes the frequency distribution of respondents' demographic characteristics, and the means and standard deviations of the NSSE and FSSE items, variables, and scales that make up SE indicators and institutional characteristics.

7.1.1 Instructors' demographic characteristics

Previous SE studies have found that instructor characteristics such as gender, academic, rank, course profiles (BrckaLorenz, 2017), teaching styles (Inayat & Ali,

2020), teaching methods (MacGregor et al., 2000), nature of discipline (BrckaLorenz, 2017; Nelson Laird et al., 2008), and class size (Pascarella & Terenzini, 1991; Ujir et al., 2020) can influence the rates and levels of SE in classroom, on-campus, and off-campus educational experiences. Accordingly, such characteristics were measured in the present study.

As Table 21 shows, 85% of instructors were male, while 15% were female. This figure reveals a strong underrepresentation of women in teaching positions. Besides, the perception measured regarding the rate of students' participation in various SE indicators seems to be skewed reflecting male instructors' perspectives dominantly.

The average age of teachers who participated in the study was 33 years ($M =$ 33, $SD =$ 4.9), of whom 72% were between the ages of 28 and 37. Thus, young and early middle-aged adults dominated the teaching posts in the observed HEIs. The average years of experience in teaching was 8 years ($M = 8$, $SD =$ 14.35). Combining the instructor age and experience data indicates that respondents possessed (at least) the minimum level of knowledge, skills, and experience to enable them to respond to the SE survey items by examining the current institutional programs, processes, and practices in which they are involved.

The vast majority of instructors (93%) had completed a master's degree in their field of study, indicating instructors the level of sound subject matter knowledge required to teach in undergraduate programs (HERQA, 2006). However, the nearly complete lack of instructors with doctorates may contribute to the observed lack of instructors with assistant, associate, or full professor academic ranks in the sampled HEIs. Nearly the same number (89%) of instructors had received some sort of training or took courses designed to enhance their pedagogical skills. As Table 21 shows, 64% of sampled instructors had completed a BEd, were certified by a Higher Diploma Program, had earned a Post Graduate Diploma in Teaching (PGDT), or participated in induction training. This result suggests that most

instructors had received the professional training needed to develop the teaching competencies essential to transforming their students' classroom, on-campus, and off-campus educational experiences.

Table 21.   Instructors' demographic characteristics

Parameters	Categories	N	%
Gender	Male	69	85
	Female	12	15
Age category	18–27 Years	11	14
	28–37 Years	58	72
	38 and more	12	15
Total		**81**	**100**
Highest Degree Earned	Bachelor's Degree	6	7
	Master's Degree	75	93
	Doctoral Degree	0	0
	Other	0	0
Total		**81**	**100**
Academic Rank	Assistant Lecturer	8	10
	Lecturer	73	90
	Assistant Professor	0	0
	Professor	0	0
Total		**81**	**100**
Admin Positions	Yes	15	19
	No	65	80
Total		**80**	**99**
Main Work Function	Teaching Only	48	59
	Mainly Teaching, Some Research	28	35
	Research Only	4	5
	Mainly Research, Some Teaching	1	1
Total		**81**	**100**
Type of Teacher Training	No teacher training	9	11
	Bed	22	27
	PGDT	4	5
	Higher Diploma Program	25	31
	Induction	1	1
	Informal Advice	13	16
	Other	7	9
Total		**81**	**100**

Source: Field data from FSSE (October 15–20, 2021)

Table 21 shows that most instructors (59%) were engaged solely in teaching-related activities, while 35% of them were engaged mainly in teaching but carried out some research activities. This suggests a low level of engagement of instructors

in research activities. Though engagement in research is one of the core missions of private HEIs (HE Proclamation, 2009, 2019) and one of the duties and responsibilities of instructors teaching undergraduate students, the limited engagement in research activities observed here suggests that the reality on the ground is quite different. This might contribute to lower instructor productivity as the integration of research with undergraduate teaching has been reported to enhance instructor productivity (Horta et al., 2012).

In addition to the instructors' demographic characteristics, information on teaching characteristics (e.g., the nature of the discipline, number of students and courses assigned, and the dominant mode of instructional delivery) were sought from sampled instructors. As Table 22 shows, 38% of instructors taught accounting and finance, 26% taught marketing management courses, and 21% taught computer science courses. Though fewer in number, there were also instructors who teaching courses in business management, education, psychology and law. The observed dominance of instructors from accounting, marketing and business management, and computer science emanated from the nature of undergraduate degree programs offered at AdU. The observed disciplinary variations do provide diverse perspectives regarding the rate of SE and its role in improving the quality of students' educational experiences and outcomes.

About 79% of instructors in the sample were engaged in teaching between one and three courses when they were surveyed, though there were some who taught more than four courses. A majority of instructors (95%) reported having teach their currently assigned courses more than once, suggesting that the sampled instructors had a reservoir of experience with the material they taught. This would enable them to have insights into the appropriate course delivery approach, relevant assessment procedures, and the nature of learning experiences in which students demonstrated higher levels of commitment and motivation to succeed.

Table 22. Instructors' teaching characteristics

Parameters	Categories	N	%
Main subject area	Accounting and finance	31	38
	Business management	4	5
	Computer science	17	21
	Economics	2	2
	Education	3	4
	Law	1	1
	Marketing management	21	26
	Psychology	2	3
Total		**81**	**100**
Number of times previously teaching currently assigned course	0 Times	4	5
	1–2 Times	14	17
	3–4 Times	31	38
	5–9 Times	17	21
	More than 10 Times	15	19
Total		**81**	**100**
Number of currently assigned courses	1 Course	19	24
	2 Courses	32	40
	3 Courses	13	16
	4 Courses	5	6
	5 Courses	3	4
	6 or more courses	8	9
Total		**80**	**99**
Estimated number of students currently assigned	1–50 Students	10	12
	51–100 Students	14	17
	101–150 Students	22	27
	151–200 Students	17	21
	201–300 Students	8	10
	More than 300 Students	9	11
Total		**80**	**98**
Mode of course delivery	Classroom instruction on-campus	65	80
	Classroom instruction at an auxiliary location	1	1
	Distance education	2	3
	Combination of classroom instruction and distance education	13	16
Total		**81**	**100**

Source: Field data from FSSE (October 15–20, 2021)

About 80 of the sampled instructors' courses were offered on campus, while 16% used a combination of classroom and off-campus modalities such as distance education, placements, and internship experiences. Clearly, classroom-based, on-campus teaching dominated the sample, which signifies the limited emphasis given to the design and implementation of enriching off-campus educational experiences.

Table 22 also shows that 30% of instructors were assigned to teach 1–100 students, while 48% had 100–200 students. There were some instructors who were assigned to teach more than 300 students. These figures reveal the existence of wide variations in class size and teaching loads among instructors. These variations may contribute to differences in types of instructional methods and assessment and evaluation procedures used by course instructors and to differences in the amount of instructional time spent by instructors. It is evident that the number of students in a class, the number of credits per course, the coordination of placement, project-based courses, and practicums (Ujir et al., 2020), the teaching and learning methods, teacher competence (Almarghani & Mijatovic, 2017), and teaching loads (Astin, 1999) can all influence the delivery of engaging, student-centered, and high-quality instructional processes.

7.1.2   Students' demographic characteristics

Students characteristics such as gender, age, discipline of enrollment, aspired highest education, and parental education level were all measured. The collection of data on these characteristics was undertaken due to their influence on SE, learning, and achievement (e.g., Hsieh, 2014; Kuh et al., 2008; NSSE, 2013, 2021a). These characteristics were used to determine whether variations in demographic traits contribute to variations in SE and the achievement of expected learning outcomes.

Table 23 shows, gender was relatively even, with 52% of the student sample reporting male and 48% reporting female. This essentially equal split should provide a balanced measure of students' perceptions on their participation in various SE indicators. The average age of students who participated in the study was 23 years ($M = 23$, $SD = 3.57$), with 83% between 18 and 27 years old. The participation of middle-aged adults in undergraduate programs was very low (0.5%), with younger people dominating the age cohorts of graduating class

students.

As to subject area, 48% of sampled students were enrolled in accounting and finance, followed by business management (22%), computer science (19%), and marketing management (11%). the observed dominance of sample students from these fields of study is due to the nature of undergraduate degree programs offered at AdU, as it awards bachelor's and master's degrees and has TVET programs in accounting, business, management, and computer science. This limited the inclusion of sampled students from engineering, health sciences, and other disciplines. This imbalance called for a delimited generalization to be made from the survey outcomes.

As to the highest academic degree that sampled students planned to complete, a majority of students (44%) planned to complete a PhD; 30% wanted to complete a bachelor's degree, and 26% of them planned to earn a master's degree. The number of sampled students who aspired to continue rising on the education ladder was much greater than those who intended to strop with a bachelor's degree. Empirical evidence suggests that students' motivation and resilience to succeed plays a significant role in the way students engage with their institutions, peers, and instructors (e.g., Pather et al., 2017). Therefore, the lack of aspiration to pursue the higher levels of education by a quarter of the respondents may be explained by their observed limited engagement in academic matters.

Table 23.   Students' demographic characteristics

Parameters	Categories	N	%
Gender	Male	108	52
	Female	100	48
Total		**208**	**100**
Age category	18–27 Years	173	83
	28–37 Years	29	14
	38 and more	1	0.5
Total		**203**	**97.5**
Main subject area	Accounting and finance	100	48
	Business management	46	22
	Computer science	39	19
	Marketing management	23	11
Total		**208**	**100**
Highest Degree Aspired	Bachelor's degree	62	30
	Master's degree	55	26
	Doctoral degree	91	44
Total		**208**	**100**
Level of education–student's father	No school	39	19
	Primary school	37	18
	Junior secondary	5	2
	Senior secondary	33	16
	Vocational certificate or diploma	22	11
	Undergraduate degree	35	17
	Postgraduate degree	28	13
	Not sure	9	4
Total		**208**	**100**
Level of education–student's mother	No school	54	26
	Primary school	39	19
	Junior secondary	9	4
	Senior secondary	42	20
	Vocational certificate or diploma	21	10
	Undergraduate degree	20	10
	Postgraduate degree	13	6
	Not sure	10	5
Total		**208**	**100**

Source: Field data from NSSE (October 15–20, 2021).

Regarding parental level of education, most students' parents had no formal education, and none had a doctoral degree. Students' fathers (77%) were slightly more educated (primary-postgraduate degree) than their mothers (69%). In particular, fathers outperform mothers as one goes from lower levels of education to completing bachelor's and master's degrees. These figures are not especially

surprising, as access to primary, secondary, TVET, and HE was elitist from the start of modern education in Ethiopia in 1906. The expansion of formal and non-formal education in rural areas, established and emerging urban centers, and pastoral peripheries in Ethiopia is believed to have contributed significantly to improved educational access and equity at all levels (MOE, 2021).

Table 24. Teaching Environment

Parameters	Categories	Major		Supportive	
		N	%	N	%
Number of courses in current semester	Accounting and finance	4	66	2	34
	Business management	3	50	3	50
	Computer science	5	71	2	29
	Marketing management	5	83	1	16

Source: Field data from NSSE (October 15–20, 2021) and Revised Undergraduate Curriculum of AdU (2021).

The number of major and supportive courses taken by graduating class students in the current academic semester was assessed using a modified NSSE item. Students' ratings were compared with the existing undergraduate curriculum due to the observed inconsistencies in students' self-reports. While the data were being coded, students studying similar disciplines were found to report the number of major and supportive courses they were taking differently. The figures in Table 24 represent the data obtained after cross-examining both sources.

As that table shows, there were variations in the number of major and supportive courses offered across various disciplines. In all cases, the number of major courses taken by students ranged between three and five. In addition, graduating class students were taking between one and three supportive courses. Overall, except for computer science students who were taking seven courses, the remaining students were taking six courses in total. This indicates that, on average, graduating class students are expected to take between 18 and 21 credit hours. When translated into ECTS, students were taking 30–35 ECTS in the

academic semester when they were surveyed. Using the Ethiopian credit conversion rate (1 ECTS=27 study hours), this would mean sampled students were expected to invest between 810 and 945 study hours on course-related tasks and activities. The study hours were then divided into the various activities designed to promote SE in classroom, on-campus, and off-campus educational activities, which included attending lectures, participating in collaborative learning activities, home study, working on individual and group assignments, engagement in placements, internships, and practicums, and participation in a range of assessment activities.

7.2   The psychometric properties of the NSSE and FSSE

The NSSE and FSSE survey instruments were considered relevant to test the qualitatively generated engagement themes and indicators in the quantitative phase of the study. Based on the data collected from a pilot test at MU and field data from AdU, the psychometric properties of the NSSE and FSSE were examined. Examining the psychometric properties of a located and adapted survey instrument is one procedure used to test the validity and reliability of an instrument used in different contexts. In addition, searching for evidence of the validity and reliability of a survey instrument to test the themes generated from qualitative results is one of the key tasks carried out in mixed exploratory sequential designs (Creswell & Creswell, 2017). Accordingly, the psychometric properties of the NSSE and FSSE used to collect the quantitative data were examined using evidence obtained from expert review, pilot testing, component analysis, and reliability measures. Among other uses, the use of component analysis enables the identification of clusters of variables and reducing a set of variables into a smaller set of dimensions (Field, 2018). Component analysis was also used to identify the underlying properties of

SE stipulated by the items in the survey instruments (Kuh, 2003; NSSE, 2013). The evidence obtained from pilot testing, expert review, and component and reliability analysis served for examining the face, content, and construct validity of the adapted NSSE and FSSE instruments.

Though SE is considered a latent variable (i.e., a variable that cannot be directly measured (Field, 2009) because it encompasses a number of dimensions representing various constructs, the NSSE and FSSE items were designed to measure SE using engagement themes and indicators. The engagement themes and indicators—also known as constructs or dimensions or factors—represented engagement concepts, dimensions, and educational practices derived from previous empirical studies on students' college experiences and outcomes (Kuh, 2003; NSSE, 2013). The instruments were designed to measure SE at national, sectoral, institutional, and intra-institutional levels (NSSE, 2013). Previous studies have reported that the psychometric properties of the instruments indicated that the engagement indicators used in NSSE and FSSE have sufficiently strong construct validity to support their use for college and university assessment efforts (Kuh, 2003, 2009; NSSE, 2021a).

7.2.1 PCA: Student NSSE questionnaire

In order to determine how a particular variable measured using the NSSE questionnaire contribute to a given component, a PCA was conducted on 57 items. The use of PCA is recommended when the main intention is to explore data rather than test a hypothesis (Field, 2018). Previous engagement studies indicated the existence of correlations between SE variables (e.g., Kuh, 2003; NSSE, 2000, 2013). This suggests the extraction of components using direct oblimin (oblique) rotation, which allows for variables to correlate (Field, 2018; NSSE, 2019).

In retaining components, Kaiser's (1960) criterion and item intercorrelation coefficients were examined to assess the relative contribution of a question to a component. Accordingly, components with eigenvalues over Kaiser's (1960) criterion of 1 were retained. In addition, items with a correlation between 0.3 and 0.8 were included in the analysis. As Field (2009, 2018) argues, a variable with a correlation below 0.3 should be excluded, as should one with a correlation above 0.8, since those figures may indicate the existence of multicollinearity or singularity. Sampling adequacy was verified using the Kaiser–Meyer–Olkin measure. The sampling adequacy for the analysis was KMO = 0.80. This value is considered meritorious by Kaiser and Rice (1974). All KMO values for individual items were greater than 0.55, which is well above the acceptable limit of 0.5. In addition, Bartlett's test of sphericity was significant ($p < .001$), indicating that the correlations among items are appropriate for component analysis (BrckaLorenz et al., 2013).

Based on the initial analysis, 16 components were identified with eigenvalues over Kaiser's criterion of 1; in combination, they explained 64.63% of the variance. When the scree plot was examined, the point of inflexions justified retaining 12 components. According to Stevens (cited in Field, 2018, p. 1334), with a sample of more than 200 participants, the scree plot provides a fairly reliable criterion for factor selection. Variations between the number of the extracted and retained factors are not new in PCA, and the component structure observed in the NSSE instrument is no different. For instance, the 2019 NSSE principal factor analysis for senior students ($N = 89, 000$) suggested 13 distinct components explaining 69% of the variance. Since the first 10 components were aligned with items in the 10 engagement indicators and explained over 60% of the variance, the NSSE (2019) retained the 10 engagement indicators.

The results depicted in Table 25 represent the components identified from the PCA results of the NSSE survey items used to test the validity of engagement themes, concepts, and dimensions generated in the qualitative phase of the present study. The results of factor loadings after rotation, eigenvalues, percentages of variance, and reliability of scales for the NSSE instrument used to test the findings of the qualitative phase are presented. As the table shows, data from Ethiopian HEIs suggest a slightly different number of components or factor structures from those of the dominant NSSE survey instrument.

Table 25. Summary of the PCA result for NSSE survey items (N=208)

Items	Rotated factor loadings											
	Comp onent 1	Comp onent 2	Comp onent 3	Comp onent 4	Comp onent 5	Comp onent 6	Comp onent 7	Comp onent 8	Comp onent 9	Comp onent 10	Comp onent 11	Comp onent 12
Evaluated what others have concluded from numerical information	**0.74**											
Discussed your academic performance with your instructor	**0.67**											
Discussed course topics, ideas, or concepts with your instructor outside of class	**0.63**											
Used numerical information to examine a real-world problem	**0.58**											
Worked with your instructors on activities other than coursework	**0.49**											
Talked about career plans with your instructors	**0.46**											
Applying facts, theories, or methods to practical problems	**0.42**											
Providing support for your overall well-being		**0.72**										
Using learning support services		**0.71**										
Providing opportunities to be involved socially		**0.64**										
Encouraging contact among students from different backgrounds		**0.63**										
Providing support to help students succeed academically		**0.50**										
Attending campus activities and events		**0.49**										
Spending significant amounts of time studying and on academic work		**0.42**										
Helping you manage your non-academic responsibilities		**0.36**										
People with religious beliefs other than your own			**0.81**									
People with political views other than your own			**0.74**									
People from an economic background other than your own			**0.54**									
People of ethnicity other than your own			**0.47**									
Tried to better understand someone else's views by imagining how an issue looks from their perspective				**0.76**								
Connected ideas from your courses to your prior experiences and				**0.46**								

Items	Rotated factor loadings											
	Comp onent 1	Comp onent 2	Comp onent 3	Comp onent 4	Comp onent 5	Comp onent 6	Comp onent 7	Comp onent 8	Comp onent 9	Comp onent 10	Comp onent 11	Comp onent 12
knowledge												
Learned something that changed the way you understand an issue or concept				0.46								
Attending events that address important social, economic, or political issues				0.37								
Connected your learning to societal problems or issues					0.72							
Included diverse perspectives in course discussions or assignments					0.60							
Examined the strengths and weaknesses of your own views on a topic or issue					0.59							
Asked another student to help you understand course material						0.75						
Explained course material to one or more students						0.58						
Prepared for examinations by discussing or working through course material with other students						0.49						
The extent courses taught challenged students to do their best work						0.39						
Quality of interaction with academic advisors							0.78					
Quality of interaction with student service staff							0.78					
Quality of interaction with other administrative staff and offices							0.73					
Quality of interaction with instructors							0.61					
Quality of interaction with students							0.42					
The extent students prepared two or more drafts of a paper or assignment before turning it in								0.80				
The extent students asked questions or contributed to course discussions in other ways								0.57				

Items — Rotated factor loadings

Items	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6	Component 7	Component 8	Component 9	Component 10	Component 11	Component 12
Worked with other students on course projects or assignments								**0.37**				
The extent students attended an art exhibit, play, or other arts performance									**0.75**			
The extent students come to class without completing readings or assignments									**0.67**			
Reviewed your notes after class										**0.73**		
Summarized what you learned in class or from course materials										**0.56**		
Identified key information from reading assignments										**0.43**		
Forming a new idea or understanding from various pieces of information											**-0.68**	
Memorizing course material											**-0.61**	
Evaluating a point of view, decision, or information source											**-0.55**	
Analyzing an idea, experience, or line of reasoning in depth by examining its parts											**-0.44**	
Clearly explained course goals or requirements												**0.65**
Taught course sessions in an organized way												**0.59**
Reached conclusions based on your own analysis of numerical information												**0.42**
Used examples or illustrations to explain difficult points												**0.68**
Provided prompt and detailed feedback on tests or completed assignments												**0.60**
Eigenvalues	10.5	3.86	2.94	2.41	1.98	1.82	1.70	1.67	1.50	1.34	1.32	1.30
% of Variance	18.4	6.77	5.15	4.22	3.48	3.20	2.98	2.94	2.63	2.34	2.32	2.27
α	.84	.81	.73	.68	.62	.58	.77	.58	.54	.67	.71	.70

Note: Factor loadings over 0.35 appears in bold.

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To illustrate the differences, comparisons were made between the NSSE themes, engagement indicators and items explicated from the data collected using the adapted NSSE instrument and the component or factor structures discussed in NSSE research. The tables below present the results of the comparisons.

Table 26.   Comparison of NSSE themes and indicators (academic challenge)

NSSE themes	Engagement indicators	Original items	Extracted items
Academic challenge	Higher-order learning	Memorizing course material	Memorizing course material.
		Applying facts, theories, or methods to practical problems or new situations	---------------
		Analyzing an idea, experience, or line of reasoning in depth by examining its parts	Analyzing an idea, experience, or line of reasoning in depth by examining its parts.
		Evaluating a point of view, decision, or information source	Evaluating a point of view, decision, or information source.
		Forming a new idea or understanding from various pieces of information	Forming a new idea or understanding from various pieces of information.
	Reflective and integrative learning	Combined ideas from different courses when completing assignments	---------------
		Connected your learning to societal problems or issues	---------------
		Included diverse perspectives (e.g., political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	---------------
		Examined the strengths and weaknesses of your own views on a topic or issue	---------------
		Tried to better understand someone else's views by imagining how an issue looks from their perspective	Tried to better understand someone else's views by imagining how an issue looks from their perspective.
		Learned something that changed the way you understand an issue or concept	Learned something that changed the way you understand an issue or concept.
		Connected ideas from your courses to your prior experiences and knowledge	Connected ideas from your courses to your prior experiences and knowledge.
	Learning strategies	Identified key information from reading assignments	Identified key information from reading assignments
		Reviewed your notes after class	Reviewed your notes after class
		Summarized what you learned in class or from course materials	Summarized what you learned in class or from course materials
	Quantitative reasoning	Reached conclusions based on your own analysis of numerical information.	---------------
		Used numerical information to examine a real-world problem.	---------------
		Evaluated what others have concluded from numerical information	---------------

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-------- Items that did not load to the expected engagement indicators

As Table 26 shows, only one item (applying facts, theories, or methods to practical problems or new situations under the engagement indicator higher-order learning) did not load to similar items designed to measure the extent to which students' coursework emphasized challenging cognitive tasks such as application, analysis, judgment, and synthesis. Instead, this item loaded to items under the engagement indicators quantitative reasoning and student-faculty interaction. On the other hand, four items (combined ideas from different courses when completing assignments, connected your learning to societal problems, included diverse perspectives in course discussions or assignments, and examined the strengths and weaknesses of your own views on a topic or issue) under the reflective and integrative learning engagement indicator did not load to the variables designed to measure the extent to which students make connections between their learning and the world around them, reexamining their own beliefs, and considering issues and ideas from others' perspectives.

Unlike the NSSE component structures, three items (connected your learning to societal problems, included diverse perspectives in course discussions or assignments, and examined the strengths and weaknesses of your own views on a topic or issue) loaded independently to form a different engagement theme. Similarly, three other items (reached conclusions based on your own analysis of numerical information, used numerical information to examine a real-world problem or issue, and evaluated what others have concluded from numerical information) under the quantitative reasoning engagement indicator loaded to two distinct components. Compared with NSSE component structures, the item reached conclusions based on your own analysis of numerical information loaded to the effective teaching engagement indicator. On the other hand, the items used numerical information to examine a real-world problem or issue and evaluated

what others have concluded from numerical information loaded to the student-faculty interaction engagement indicator.

However, all items under the learning strategies engagement indicator loaded to similar component structures designed to measure the extent to which students enhance their learning and retention by actively engaging with and analyzing course material rather than approaching learning as absorption. Therefore, responses obtained from Ethiopian HE perspectives suggest the engagement indicators learning strategies (all items), higher-order learning (all but one item), and reflective and integrative learning (three of seven items) as the appropriate measure of the Academic Challenge theme. This finding indicates the importance of contextual variations and differences in respondent characteristics in determining the nature of engagement indicators and the variables that makes up the engagement theme.

Table 27.   Comparison of NSSE themes and indicators (learning with peers)

NSSE themes	Engagement indicators	Original items	Extracted items
Learning with peers	Collaborative learning	Asked another student to help you understand course material Explained course material to one or more students Prepared for examinations by discussing or working through course material with other students Worked with other students on course projects or assignments	Asked another student to help you understand course material Explained course material to one or more students Prepared for examinations by discussing or working through course material w/other students --------------
	Discussion with diverse others	People of ethnicity other than your own People from an economic background other than your own People with religious beliefs other than your own People with political views other than your own	People of ethnicity other than your own People from an economic background other than your own People with religious beliefs other than your own People with political views other than your own

-------- Items that did not load to the expected engagement indicators

In Table 27, only one item (worked with other students on course projects or assignments) under the collaborative learning engagement indicator did not load to

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similar items designed to measure the extent to which students collaborate with their peers in solving problems or mastering difficult material. All items under the discussion with diverse others engagement indicator loaded to similar items designed to measure on- and off-campus opportunities created for students to interact with and learn from others with different backgrounds and life experiences. Compared to indicators under the academic challenge theme, engagement indicators under the learning with peers theme were represented by their corresponding items. Therefore, the components explored from the adapted survey appear be consistent with the engagement construct embedded in the NSSE.

Table 28.   Comparison of NSSE themes and indicators (experience with faculty)

NSSE Themes	Engagement indicators	Original items	Extracted items
Experience with faculty	Student-faculty interactions	Talked about career plans with your instructors	---------------
		Worked with your instructors on activities other than coursework (committees, student groups, etc.)	---------------
		Discussed course topics, ideas, or concepts with your instructor outside of class	Discussed course topics, ideas, or concepts with your instructor outside of class.
		Discussed your academic performance with your instructor	Discussed your academic performance with your instructor.
	Effective teaching practices	Clearly explained course goals or requirements	Clearly explained course goals or requirements.
		Taught course sessions in an organized way	Taught course sessions in an organized way.
		Used examples or illustrations to explain difficult points	Used examples or illustrations to explain difficult points
		Provided feedback on a draft or work in progress	---------------
		Provided prompt and detailed feedback on tests or completed assignments	Provided prompt and detailed feedback on tests or completed assignments

-------- Items that did not load to the expected engagement indicators

Table 28 shows that four items under the student-faculty interaction engagement indicator, two (discussed course topics, ideas, or concepts with a faculty member outside of class and discussed your academic performance with a faculty member) loaded to assist the measurement of the extent to which faculty members model

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intellectual work, promote mastery of knowledge and skills, and help students make connections between their studies and their future plans. The remaining two items (talked about career plans with a faculty member and worked with a faculty member on activities other than coursework) together with two items from the quantitative reasoning engagement indicator formed a separate component that suggests a different component variable. As opposed to this, items under the Effective Teaching engagement indicator loaded similarly to the NSSE factor structure. However, the inclusion of the reached conclusions based on your own analysis of numerical information item, which belongs to the quantitative reasoning engagement indicator, makes this component structure different from that found in the NSSE.

In Table 29, only one item (attending events that address important social, economic, or political issues) under the supportive environment engagement indicator did not load to similar items designed to measure students' perceptions of how much an institution emphasizes providing services and activities that support their learning and development. Unlike the original NSSE, the spending significant amounts of time studying and on academic work item loaded under the supportive environment engagement indicator. All items under the quality of interactions engagement indicator loaded to similar items designed to measure the extent to which campus environments are characterized by positive interpersonal relations that promote student learning and success. Though there are slight deviations from the original NSSE item loadings, items under the campus environment theme load to their respective engagement indicators. This finding suggests the consistency of campus environment related variables and measures across different HE contexts and student characteristics.

Table 29.   Comparison of NSSE themes and indicators (Campus Environment)

NSSE Themes	Engagement Indicators	Original Items	Extracted Items
Campus environment	Quality of interactions	Other students Academic advisors Instructors Student services staff (career services, proctors, café, etc.) Other administrative staff and offices (registrar, finance, etc.)	Other students Academic advisors Instructors Student services staff (career services, proctors, café, etc.) Other administrative staff and offices (registrar, finance, etc.)
	Supportive environment	Providing support to help students succeed academically Using learning support services (tutoring services, writing center, etc.) Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.) Providing opportunities to be involved socially Providing support for your overall well-being (recreation, health care, counseling, etc.) Helping you manage your non-academic responsibilities (e.g., work, family) Attending campus activities and events (performing arts, athletic events, etc.) Attending events that address important social, economic, or political issues	Providing support to help students succeed academically. Using learning support services. Encouraging contact among students from different backgrounds. Providing opportunities to be involved socially. Providing support for your overall well-being. Helping you manage your non-academic responsibilities. Attending campus activities and events. --------------

-------- Items that did not load to the expected engagement indicators

7.2.2   Item reliability coefficients : Student NSSE questionnaire

One piece of evidence examined to measure the validity of a questionnaire is related to assessing the extent to which the questionnaire consistently measures the construct it purports to measure. Conducting reliability analysis for both a questionnaire and its scales enables the researcher to determine the extent to which the responses obtained consistently measure the component structures of the questionnaire. In this study, evidence related to reliability was sought both for the adapted NSSE questionnaire and the components and scales extracted from the PCA. The reliability of the adapted NSSE survey questionnaire (57 items) indicated a higher reliability of $\alpha= 0.89$ than the reliability coefficients for the scales and

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component structures extracted from the adapted NSSE questionnaire (see Table 25) ranged between $\alpha=$ 0.54 and $\alpha=$ 0.84. The student-faculty interaction, supportive environment, quality of interactions, discussion with diverse others, higher-order learning and effective teaching scales had reliability values of $\alpha=0.70$. The reliability values for the reflective and integrative learning and collaborative learning and learning strategies scales ranged between $\alpha=0.54$ and $\alpha=0.68$.

Though statisticians consider a value of 0.7 to 0.8 to be a good indicator of reliability, a reliability value of 0.5 or above is considered to be sufficient in the earlier stages of research activities (Field, 2018). This suggests that the internal consistency of the extracted components or scales from the adapted NSSE ranged from higher to relatively lower reliability values. The inter-item correlation values for all scales ranged between 0.21 and 0.56, which indicates that the items are measuring the variables—that is, SE themes and indicators—they purport to measure (Clark & Watson, 1995). Tabachnick and Fidell (2007), Creswell (2014), Field (2018) and other authors have all reported that the number of items in a scale and the number of respondents can influence reliability values. Hence, the observed variations in scale reliability values might result from differences in the number of items in the scales and the number of people who responded to the items in the scales.

7.2.3 PCA: Instructor FSSE questionnaire

In order to determine how a particular variable measured using the FSSE questionnaire contributed to a given component, a PCA was conducted on 56 items. Since the reasons for selecting PCA for the NSSE items also apply to the FSSE items, the extraction of component structures was made using direct oblimin (oblique) rotation. Kaiser's (1960) criterion and item intercorrelation coefficients

were examined to retain the number of components and to assess the relative contribution of a given question to a component. Accordingly, components with eigenvalues over Kaiser's (1960) criterion of 1 were retained, and items with correlations between 0.3 and 0.8 were also included in the analysis. Sampling adequacy was verified using the KMO measure, which was 0.70. This value is considered "middling" by Kaiser and Rice (1974). All KMO values for individual items were greater than 0.52, which is above the acceptable limit of 0.5. In addition, the Bartlett's test of sphericity was significant ($p < .001$), indicating that the correlations among items are appropriate for a factor analysis (BrckaLorenz et al., 2013).

Table 30 shows the components identified from the PCA results of the FSSE survey items used to test the validity of the engagement themes, concepts, and indicators generated in the qualitative phase of the study. The results of the factor loading after rotation, eigenvalues, percentage of variance, and reliability of scales for the FSSE instrument used to test the findings of the qualitative phase of the study are also presented in Table 30. Based on the initial analysis, 12 factors were identified with eigenvalues over Kaiser's criterion of 1; in combination, they explained 77.83% of the variance. When the scree plot was examined, the point of inflexions justified retaining 11 components. Given the small sample size and the perceived importance of the initially extracted components, all components were retained and included in the analysis. Like the NSSE, the FSSE factor structure shows variations between the number of extracted and retained factors. For instance, the 2013 FSSE Exploratory Factor Analysis ($N = 18, 133$) suggested 14 distinct components explaining 62% of the variance (BrckaLorenz et al., 2013).

Table 30. Summary of the PCA results for FSSE survey items (*N* = 81)

Items	Rotated Factor Loadings										
	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6	Component 7	Component 8	Component 9	Component 10	Component 11
Students spending significant amounts of time studying and on academic work	-0.75										
Providing support to help students succeed academically	-0.81										
Students using learning support services	-0.75										
Encouraging contact among students from different backgrounds	-0.58										
Providing opportunities for students to be involved socially	-0.57										
Providing support for students' overall well-being	-0.77										
Helping students manage their non-academic responsibilities	-0.77										
Students attending campus activities and events	-0.91										
Students attending events that address important social, economic, or political issues	-0.84										
Faculty's perception of the quality of students' interaction with other students		0.64									
Faculty's perception of the quality of students' interaction with academic advisors		0.74									
Faculty's perception of the quality of students' interaction with instructors		0.79									
Faculty's perception of the quality of students' interaction with student service staffs		0.82									
Faculty's perception of the quality of students' interaction with other administrative staff		0.85									
Opportunities created for students to engage in discussions with people of ethnicity other than their own			0.93								
Opportunities created for students to engage in discussions with people from an economic background other than their own			0.87								
Opportunities created for students to engage in discussions with people with religious beliefs other than their own			0.88								
Opportunities created for students to engage in discussions with people with political views other than their own			0.89								
Opportunities created for students to engage in discussions with people with a gender other than their own			0.89								
The extent to which faculty feel it is important that students ask questions or contribute to course discussions in other ways				-0.46							
The extent to which faculty feel it is important that students come to class having completed readings or assignments				-0.56							

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Items	Rotated Factor Loadings										
	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6	Component 7	Component 8	Component 9	Component 10	Component 11
The extent to which faculty feel it is important that students combine ideas from different courses when completing assignments				-0.57							
The extent to which faculty feel it is important that students connect their learning to societal problems or issues				-0.67							
The extent to which faculty feel it is important that students include diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments				-0.68							
The extent to which faculty feel it is important that students examine the strengths and weaknesses of their own views on a topic or issue				-0.70							
The extent to which faculty feel it is important that students try to better understand someone else's views by imagining how an issue looks from their perspective				-0.68							
The extent to which faculty feel it is important that students learn something that changes the way they understand an issue or concept				-0.79							
The extent to which faculty feel it is important that students connect ideas from your course to their prior experiences and knowledge				-0.75							
The extent to which faculty clearly explain course goals and requirements					0.71						
The extent to which faculty teach course sessions in an organized way					0.73						
The extent to which faculty use examples or illustrations to explain difficult points					0.53						
The extent to which faculty discuss course topics, ideas, or concepts outside of class with their students						0.68					
The extent to which faculty discuss their students' or advisees' academic performance						0.72					
The extent to which courses taught challenge students to do their best work						0.42					
The extent to which coursework emphasizes applying facts, theories, or methods to practical problems or new situations							-0.54				
The extent to which coursework emphasizes analyzing an idea, experience, or line of reasoning in depth by examining its parts							-0.55				
The extent to which coursework emphasizes evaluating a point of view, decision, or information source							-0.68				
The extent to which coursework emphasizes forming a new idea or understanding from various pieces of information							-0.75				
The extent to which the faculty talk about their students' or advisees' career plans								0.36			
The extent to which the faculty worked with their students or advisees on activities other than								0.84			

	Rotated Factor Loadings										
Items	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6	Component 7	Component 8	Component 9	Component 10	Component 11
coursework											
The extent to which faculty provide feedback to students on drafts or works in progress									**0.30**		
The extent to which faculty provide prompt and detailed feedback on tests or completed assignments									**0.79**		
The extent to which faculty use a variety of teaching techniques to accommodate diversity in student learning styles									**0.61**		
The extent to which faculty review and summarize material for students									**0.55**		
The extent to which faculty encourage students to ask other students for help understanding course material										**0.41**	
The extent to which faculty encourage students to explain course material to other students										**0.75**	
The extent to which faculty encourage students to prepare for examinations by discussing or working through course material with other students										**0.64**	
The extent to which faculty encourage students to work with other students on course projects or assignments										**0.69**	
The extent to which faculty encourage students to identify key information from reading assignments										**0.86**	
The extent to which faculty encourage students to review notes after class										**0.71**	
The extent to which faculty encourage students to summarize what has been learned from class or from course materials										**0.76**	
The extent to which faculty feel it is important that students reach conclusions based on their own analysis of numerical information											**0.75**
The extent to which faculty feel it is important that students use numerical information to examine a real-world problem or issue											**0.61**
The extent to which faculty feel it is important that students evaluate what others have concluded from numerical information											**0.68**
Eigenvalues	16.40	5.83	4.46	3.43	3.28	2.03	1.71	1.54	1.50	1.23	1.14
% of Variance	29.26	10.41	7.96	6.13	5.86	3.63	3.05	2.75	2.68	2.20	2.03
A	.93	.87	.94	.93	.80	.67	.87	.73	.81	.92	.85

Note: Factor loadings over .36 appears in bold.

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Though the FSSE components extracted from sampled instructors' data generally reflect the component structures used in the original FSSE instrument, there was a slight difference between the two component structures. To shed light on these differences, comparisons were made between the FSSE themes, engagement indicators, and items explicated from the data collected using the adapted FSSE instrument and the component or factor structures discussed in the FSSE literature.

In Table 31, only one item (memorizing course material) under the higher-order learning engagement indicator did not load to similar items designed to measure the extent to which students' coursework emphasizes challenging cognitive tasks. This finding is consistent with the 2013 FSSE construct validity analysis. The principal factor analysis for the higher-order learning indicator items showed that the (memorizing course material) item did not load to similar items designed to measure the "higher-order learning" scale (BrckaLorenz et al., 2013). The cognitive process of memorization, which reflects the lowest thinking altitude (Anderson, 2006), is detached from cognitive engagement construct. However, the remaining four items that signify students increased cognitive processes loaded to a similar component structure.

All items under the reflective and integrative learning engagement indicator loaded to related variables designed to measure the extent to which faculty consider it important that students make connections between their learning and the world around them. Unlike the FSSE factor structures, two items (ask questions or contribute to course discussions in other ways) and (come to class having completed readings or assignments) loaded to the reflective and integrative learning component.

Table 31. Comparison of FSSE themes and indicators (academic challenge)

FSSE Themes	Engagement Indicators	Original Items	Extracted Items
Academic challenge	Higher-order learning	Memorizing course material	---------------
		Applying facts, theories, or methods to practical problems or new situations	Applying facts, theories, or methods to practical problems or new situations
		Analyzing an idea, experience, or line of reasoning in depth by examining its parts	Analyzing an idea, experience, or line of reasoning in depth by examining its parts
		Evaluating a point of view, decision, or information source	Evaluating a point of view, decision, or information source
		Forming a new idea or understanding from various pieces of information	Forming a new idea or understanding from various pieces of information
	Reflective and integrative learning	Combine ideas from different courses when completing assignments	Combine ideas from different courses when completing assignments
		Connect their learning to societal problems or issues	Connect their learning to societal problems or issues
		Include diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	Include diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments
		Examine the strengths and weaknesses of their own views on a topic or issue	Examine the strengths and weaknesses of their own views on a topic or issue
		Try to better understand someone else's views by imagining how an issue looks from their perspective	Try to better understand someone else's views by imagining how an issue looks from their perspective
		Learn something that changes the way they understand an issue or concept	Learn something that changes the way they understand an issue or concept
		Connect ideas from your course to their prior experiences and knowledge	Connect ideas from your course to their prior experiences and knowledge
			Ask questions or contribute to course discussions in other ways
			Come to class having completed readings or assignments
	Learning strategies	Identify key information from reading assignments	---------------
		Review notes after class	---------------
		Summarize what has been learned from class or from course materials	---------------
	Quantitative reasoning	Reach conclusions based on their own analysis of numerical information	Reach conclusions based on their own analysis of numerical information
		Use numerical information to examine a real-world problem or issue	Use numerical information to examine a real-world problem
		Evaluate what others have concluded from numerical information	Evaluate what others have concluded from numerical information

-------- Items that did not load to the expected engagement indicators

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All items under the reflective and integrative learning indicator were designed to measure the extent to which students actively engage in educational experiences that challenge their thinking level, selection and use of methods, and approach to addressing existing societal problems. The loading of items that seek to measure SE in discussion and reading tasks to the reflective and integrative learning engagement indicator indicates the importance that the sampled instructors attached to discussion and reading tasks as measures of academic challenge.

In the learning strategies engagement indicator, no items loaded to their respective components. Unlike the FSSE structure (FSSE, 2018; Paulsen & BrckaLorenz, 2018) these items were found to load to a different component structure: collaborative learning (see Table 32). By contrast, all items under the quantitative reasoning engagement indicator loaded to related items designed to measure the opportunities given to students to develop their ability to reason quantitatively. This result suggests the appropriateness of several engagement indicators—higher-order learning (all items), reflective and integrative learning (all items), quantitative reasoning (all items)—in measuring the academic challenge theme. Though sample size may contribute to the observed variations, this finding does corroborate the arguments made for the importance of valuing contextual variations in measuring SE in HE.

In Table 32, other than the loading of three items from the learning strategies engagement indicator to items under the collaborative learning engagement indicator, all items designed to measure the collaborative learning and discussion with diverse others engagement indicators were found to load consistently with the FSSE factor structures. Therefore, the component structure explicated from the adapted survey is consistent with the FSSE learning with peer's engagement theme.

Table 32. Comparison of FSSE themes and indicators (learning with peers)

FSSE themes	Engagement indicators	Original items	Extracted items
Learning with peers	Collaborative learning	Ask other students for help understanding course material Explain course material to other students Prepare for examinations by discussing or working through course material with other students Work with other students on course projects or assignments	Ask other students for help understanding course material Explain course material to other students Prepare for examinations by discussing or working through course material with other students Work with other students on course projects or assignments Identify key information from reading assignments Review notes after class Summarize what has been learned from class or from course materials
	Discussion with diverse others	People of ethnicity other than their own People from an economic background other than their own People with religious beliefs other than their own People with political views other than their own People with a gender other than their own	People of ethnicity other than their own People from an economic background other than their own People with religious beliefs other than their own People with political views other than their own People with a gender other than their own

As Table 33 shows, the four items under the student-faculty interaction engagement indicator were split into two components: two items (discussed course topics, ideas, or concepts outside of class and discussed their academic performance) and one other (the extent to which courses challenged students to do their best work) loaded to create one component structure. Since the reliability scale for the extent to which courses challenged students to do their best work item ($\alpha = 0.74$), was found to be higher than the reliability of the scale that make up the three items ($\alpha = 0.67$), the exclusion of this item from the scale was indicated; the remaining two items were retained to make up the component.

The remaining two items (talked about career plans with a faculty member) and (worked with a faculty member on activities other than coursework) also formed a separate factor structure, suggesting the minimal importance given to organizing

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discussions on matters related to course and academic performance between students and their instructors at the sampled university.

Table 33. Comparison of FSSE themes and indicators (experience with faculty)

FSSE Themes	Engagement Indicators	Original Items	Extracted Items
Experience with faculty	Student-faculty interactions	Talked about their career plans	Talked about their career plans
		Worked on activities other than coursework	Worked on activities other than coursework
		Discussed course topics, ideas, or concepts outside of class	---------------
		Discussed their academic performance	---------------
	Effective teaching practices	Clearly explain course goals and requirements	---------------
		Teach course sessions in an organized way	---------------
		Use examples or illustrations to explain difficult points	---------------
		Provide feedback to students on drafts or works in progress	Provide feedback to students on drafts or works in progress
		Provide prompt and detailed feedback on tests or completed assignments	Provide prompt and detailed feedback on tests or completed assignments
		Use a variety of teaching techniques to accommodate diversity in student learning styles	Use a variety of teaching techniques to accommodate diversity in student learning styles
		Review and summarize material for students	Review and summarize material for students
		Provide standards for satisfactory completion of assignments (rubrics, detailed outlines, etc.)	---------------

-------- Items that did not load to the expected engagement indicators

Similarly, while four items under the effective teaching practices engagement indicator loaded to similar components, three other items (clearly explain course goals and requirements, teach course sessions in an organized way, and use examples or illustrations to explain difficult points) loaded differently, suggesting a different factor structure. Another item (provide standards for satisfactory completion of assignments) failed to load to any of the components extracted. This finding suggests variations in the sampled instructors' perceptions of measures of effective teaching practices. Hence, the inherent concepts and measures used to assess student-faculty interaction and effective teaching practices in the original

FSSE may not represent the dominant conceptions and measures used to assess experience with faculty at the sampled private university.

Table 34. Comparison of FSSE themes and indicators (Campus Environment)

FSSE themes	Engagement indicators	Original items	Extracted items
Campus environment	Quality of interactions	Other students Academic advisors Instructors Student services staff (career services, proctors, café, etc.) Other administrative staff and offices (registrar, finance, etc.)	Other students Academic advisors Instructors Student services staff (career services, proctors, café, etc.) Other administrative staff and offices (registrar, finance, etc.)
	Supportive environment	Providing support to help students succeed academically Students using learning support services (tutoring services, writing center, etc.) Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.) Providing opportunities for students to be involved socially Providing support for students' overall well-being (recreation, health care, counseling, etc.) Helping students manage their non-academic responsibilities (work, family, etc.) Students attending campus activities and events (performing arts, athletic events, etc.) Students attending events that address important social, economic, or political issues	Providing support to help students succeed academically Students using learning support services Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.) Providing opportunities for students to be involved socially Providing support for students' overall well-being (recreation, health care, counseling, etc.) Helping students manage their non-academic responsibilities (work, family, etc.) Students attending campus activities and events (performing arts, athletic events, etc.) Students attending events that address important social, economic, or political issues Students spending significant amounts of time studying and on academic work

-------- Items that did not load to the expected engagement indicators

In Table 34, save for one item (students spending significant amounts of time studying and on academic work) that loaded with the items under the supportive environment engagement indicator, the remaining items loaded to related components. Similarly, all items under the quality of interactions engagement

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indicator loaded to similar components. This result indicate a close resemblance of the two component structures extracted from the original and adapted FSSE instruments. Irrespective of contextual differences, items designed to measure the campus environment theme consistently loaded to their respective engagement indicators. This finding also supports the consistency of the FSSE variables and measures designed to examine the extent to which campuses create a supportive environment that enables students to engage and interact in offering interrelated engagement measures across different HE contexts.

7.2.4   Item reliability coefficients : Instructor FSSE questionnaire

Evidence for the internal consistency of the adapted FSSE instrument was examined. Reliability analyses for both the questionnaire and components or scales were assessed to determine the extent to which responses obtained from instructors consistently measured the component structures of the questionnaire. The adapted FSSE survey questionnaire (56 items) indicated a higher reliability of $\alpha = 0.94$. However, the reliability coefficient for the extracted scales or component structures of the adapted FSSE questionnaire (see Table 30) ranged between $\alpha = 0.67$ and $\alpha = 0.94$. Accordingly, except for the reliability value for the student-faculty interaction scale ($\alpha = 0.67$), the reliability values for the remining component structures were above a reliability value of $\alpha = 0.70$. This value suggests good internal consistency of the adapted FSSE scales (Field, 2018). In addition, the inter-item correlation values for all scales ranged between 0.21 and 0.78, which indicates that the items are measuring the variables—that is, SE themes and indicators—that they purport to measure (Clark & Watson, 1995). Tabachnick and Fidell (2006), Creswell (2014), Field (2018), and other authors have reported that the number of items in scale and the number of respondents can influence reliability values. Therefore, the observed variations in scale reliability values might

have resulted from differences in the number of items in the scales and the smaller number of people who responded to the items in the scales.

7.3 The relationships between core NSSE and FSSE engagement indicators and HIPs

In order to explore the nature and strength of the relationships between the NSSE and FSSE engagement indicators, Person's correlation coefficients were computed. This analysis enabled the identification of the appropriate engagement indicators for use as predictors of SE and learning achievement.

7.3.1 Relationship between NSSE and FSSE scales

As Table 35 shows, there were significant relationships between all NSSE engagement indicators. The correlation coefficients revealed from moderate to strong relationships. Nevertheless, the strength of the relationships between engagement indicators and the NSSE scales did show variations. For instance, the higher-order learning engagement indicator was highly correlated with the NSSE student-faculty interactions, quantitative reasoning, reflective and integrative learning, and collaborative learning scales. This suggest that students' perceptions of their engagement in higher-order learning was related to the extent of instructors' modeling intellectual work, promoting mastery of knowledge and skills, and helping students make connections between their studies and their future plans. In addition, opportunities given to students to develop their ability to reason quantitatively, collaborate with others, and make connections between their learning and the world around them were related to the extent to which students engaged in higher-order learning.

Table 35.   Correlation between NSSE engagement indicators

Higher-order learning with other NSSE scales		
Reflective and integrative learning (r = .48)	Discussion with diverse others (r=.23)	Supportive environment (r=.34)
Learning strategies (r = .29)	Student-faculty interaction (r=.60)	Perceived institutional gains (r=.38)
Quantitative reasoning (r = .51)	Effective teaching practices (r=.35)	Sense of belonging (r=.22)
Collaborative learning (r = .38)	Quality of interactions (r=.26)	
Reflective and integrative learning with other NSSE scales		
Learning strategies (r = .36)	Student-faculty interaction (r=.45)	Perceived institutional gains (r=.35)
Quantitative reasoning (r = .43)	Effective teaching practices (r=.53)	Sense of belonging (r=.29)
Collaborative learning (r = .45)	Quality of interactions (r=.15)	
Discussion with diverse others (r = .26)	Supportive environment (r=.25)	
Learning strategies with other NSSE scales		
Quantitative reasoning (r = .25)	Effective teaching practices (r = .29)	Sense of belonging (r = .34)
Collaborative learning (r = .30)	Quality of interactions (r = .34)	
Discussion with diverse others (r = .36)	Supportive environment (r = .24)	
Student-faculty interaction (r = .24)	Perceived institutional gains (r = .35)	
Quantitative reasoning with other NSSE scales		
Collaborative learning (r = .20)	Effective teaching practices (r = .46)	Perceived institutional gains (r = .28)
Discussion with diverse others (r = .31)	Quality of interactions (r = .18)	Sense of belonging (r = .22)
Student-faculty interaction (r = .61)	Supportive environment (r = .29)	
Collaborative learning with other NSSE scales		
Discussion with diverse others (r = .23)	Effective teaching practices (r = .34)	Perceived institutional gains (r = .20)
Student-faculty interaction (r = .29)	Quality of interactions (r = .13)	Sense of belonging (r = .20)
Discussion with diverse others with other NSSE scales		
Student-faculty interaction (r = .36)	Quality of interactions (r = .28)	Perceived institutional gains (r = .34)
Effective teaching practices (r = .34)	Supportive environment (r = .33)	Sense of belonging (r = .30)
Student-faculty interaction with other NSSE scales		
Effective teaching practices (r = .47)	Supportive environment (r = .32)	Sense of belonging (r = .28)
Quality of interactions (r = .27)	Perceived institutional gains (r = .34)	
Effective teaching practices with other NSSE scales		
Quality of interactions (r = .25)	Perceived institutional gains (r = .40)	
Supportive environment (r = .14)	Sense of belonging (r = .29)	
Quality of interactions with other NSSE scales		
Supportive environment (r = .43)	Perceived institutional gains (r = .43)	Sense of belonging (r = .38)
Supportive environment (SE) with other NSSE scales		
Perceived institutional gains (r = .31)	Sense of belonging (r = .32)	
Perceived institutional gains with other NSSE scales		
Sense of belonging (r = .41)		

Note. *N* = 208. **p < .001.

Similarly, SE in reflective and integrative learning was significantly related to all NSSE scales. However, the correlation was higher in four engagement scales—quantitative reasoning, collaborative learning, student-faculty interactions, and effective teaching practices. This result indicates that students' perceptions of their

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engagement in reflective and integrative learning was related to the opportunities they received to develop their ability to reason quantitatively and collaborate with their peers in solving problems or mastering difficult material and instructors' ability to model intellectual work and promote mastery of knowledge and skills.

Another notable result is the correlation between SE in activities that advance students' quantitative reasoning skills and the extent to which instructors' model intellectual work and promote mastery of knowledge and skills. Additionally, experience with instructors was highly correlated with engagement in effective teaching practices. Students' perceptions of the extent to which the experience gained at their university contributed to their knowledge, skills, and personal development were moderately correlated with the implementation of effective teaching practices.

There was a significant[6] relationship between engagement indicators designed to measure similar engagement themes. For instance, all engagement indicators under the academic challenge theme showed moderate to higher positive relationships. Similarly, engagement indicators under the experience with faculty and campus environment themes showed a significant but moderate relationship, whereas engagement indicators under the learning with peers theme showed significant but lower relationships. This result indicates that student participation rates in one engagement indicator was associated with their levels of engagement in others. Therefore, the nature of instructional activities designed and implemented, the availability of peer and institutional supports, and the quality of interaction between students and their instructors are all related to the rate and level of students' engagement in classroom, on-campus, and off-campus educational experiences.

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[6] Significance of the relationships needs to be understood in terms of there being statistically significant relationships.

Table 36.   The correlation between FSSE engagement indicators

Higher-order learning with other NSSE scales		
Reflective and Integrative Learning (r = .47)	Discussion with diverse others (r = .26)	Supportive environment (r = .22)
Learning strategies (r = .60)	Student-faculty interaction (r = .50)	Working environment (r = .36)
Quantitative reasoning (r = .31)	Effective teaching practices (r = .60)	Institutional contribution (r = .62)
Collaborative learning (r = .62)	Quality of interactions (r = .38)	Sense of belonging (r = .37)
Reflective and integrative learning with other NSSE scales		
Learning strategies (r = .38)	Student-faculty interaction (r = .43)	Institutional contribution (r = .51)
Quantitative reasoning (r = .70)	Effective teaching practices (r = .43)	Sense of belonging (r = .32)
Collaborative learning (r = .41)	Supportive environment (r = .34)	
Discussion with diverse others (r = .32)	Working environment (r = .26)	
Learning strategies with other NSSE scales		
Quantitative reasoning (r = .25)	Effective teaching practices (r = .52)	
Collaborative learning (r = .80)	Working environment (r = .30)	
Discussion with diverse others (r = .32)	Institutional contribution (r = .37)	
Student-faculty interaction (r = .33)	Sense of belonging (r = .25)	
Quantitative reasoning with other NSSE scales		
Collaborative learning (r = .36)	Supportive environment (r = .42)	
Student-faculty interaction (r = .44)	Working environment (r = .28)	
Effective teaching practices (r = .32)	Institutional contribution (r = .36)	
Collaborative with other NSSE scales		
Discussion with diverse others (r = .32)	Supportive environment (r = .22)	Sense of belonging (r = .27)
Student-faculty interaction (r = .38)	Working environment (r = .34)	
Effective teaching practices (r = .62)	Institutional contribution (r = .48)	
Discussion with diverse others with other NSSE scales		
Student-faculty interaction (r = .25)	Institutional contribution (r = .35)	
Student-faculty interactions with other NSSE scales		
Effective teaching practices (r = .44)	Supportive environment (r = .48)	Institutional contribution (r = .41)
Quality of interactions (r = .41)	Working environment (r = .47)	Sense of belonging (r = .50)
Effective teaching practices with other NSSE scales		
Quality of interactions (r = .41)	Working environment (r = .28)	Sense of belonging (r = .35)
Supportive environment (r = .41)	Institutional contribution (r = .50)	
Quality of interactions with other NSSE scales		
Working environment (r = .30)	Institutional contribution (r = .34)	Sense of belonging (r = .29)
Supportive environment with other NSSE scales		
Institutional contribution (r = .24)	Sense of belonging (r = .34)	
Institutional contribution with other NSSE scales		
Working environment (r = .29)	Sense of belonging (r = .24)	

Note. *N* = 81. **p < .001.

As Table 36 shows, like the NSSE, there were significant positive correlations between all FSSE engagement indicators. The correlation coefficients indicated moderate to higher relationships. Though the strength of the relationships between engagement indicators and the FSSE scales did vary, the coefficients were higher

for the FSSE than for the NSSE engagement indicators. For instance, the higher-order learning engagement indicator was highly correlated with the collaborative learning, institutional contributions, learning strategies, effective teaching practices and student-faculty interactions FSSE scales.

This finding indicates that instructors emphasize more higher-order learning activities in their courses, consider the active involvement of students in the teaching and learning process, feel their institution should increase aspects of student support, perceive that they demonstrate more effective teaching practices, and provide more opportunity for students to have diverse discussions with others in their courses. It is consistent with previous findings on correlation analyses of higher-order learning with other FSSE scales (BrckaLorenz, 2017). The analysis also indicated a significant and higher correlation between the higher-order learning engagement indicator and the reflective and integrative learning, effective teaching practices, and learning strategies FSSE scales.

Similarly, there was a highly significant relationship between the reflective and integrative learning engagement scales and the quantitative reasoning and institutional contribution FSSE scales. A moderate correlation was observed between reflective and integrative learning and the effective teaching practices, student-faculty interaction, and collaborative learning scales, suggesting that instructors who placed greater importance on aspects of reflective and integrative learning also placed more emphasis on integrating activities that enhance students' quantitative reasoning skills in their courses, feel their institution should increase aspects of student support, and perceive that they demonstrate more effective teaching practices. The finding reported by BrckaLorenz and Nelson Laird (2017) on the correlations between reflective and integrative learning and other FSSE scales differs in this regard, as it indicated a moderately significant relationship between reflective and integrative learning and several FSSE scales, including higher-

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order learning, effective teaching practices, and discussion with diverse others.

In a similar fashion, learning strategy was highly and significantly correlated with collaborative learning and effective teaching practices. This indicates that instructors who placed greater importance on designing student-centered learning strategies also emphasized encouraging students to collaborate with their peers and implementing effective teaching practices. This finding is consistent with the other results regarding the association between learning strategy and other FSSE scales (Ribera, 2017; Wong & BrckaLorenz, 2017).

The student-faculty interactions engagement indicator showed moderate to higher degrees of relationship with most of the FSSE scales. Instructors who placed greater importance on aspects of student-faculty interaction also emphasized integrating activities that challenged students to think critically, employ deep learning strategies, use numerical information to solve problems, and boost their sense of belongingness in their day-today teaching. However, this finding is slightly different from those reported by Yuhas and BrckaLorenz (2017), who found a low to moderate correlation between student-faculty interactions and other FSSE scales.

Though the samples involved in this study were small, the observed relationships between various engagement indicators and FSSE scales do indicate that the importance that instructors and institutions attached to the design and implementation of effective classroom, on-campus, and off-campus educational experiences helps determine SE rates and levels. This may influence students' achievement of desired outcomes. Studies that have investigated the predictive validity of the NSSE suggest a relationship between engagement indicators and student outcome measures like students' academic performance and personal development (Carini et al., 2006; Kuh, 2003), retention (Sarraf, 2014), and reading performance (Lee, 2014).

7.3.2 The relationship between NSSE and FSSE indicators and the HIP scale

The adapted NSSE HIP scale measured the extent to which courses emphasized engaging students in enriching educational activities (learning community, service learning, and culminating senior experiences). Similarly, the FSSE HIP scale measured the extent to which instructors were engaged in supervising, mentoring, and teaching students in service learning, learning community, and a culminating senior experience. The scale also measured the extent to which instructors felt that it is important for students to engage in these activities. In order to examine the relationships between the core NSSE and FSSE scales and HIP scales, Pearson's correlation coefficients were computed.

Table 37. Correlations between NSSE and FSSE core indicators and HIPs

Engagement Indicators	HIP 1	HIP 2
Higher-order learning	.07	.27*
Reflective and integrative learning	-.01	.52**
Learning strategies	.08	.43**
Quantitative reasoning	.09	.38**
Collaborative learning	.05	.38**
Discussion with diverse others	-.04	.28**
Student-faculty interaction	.11	.34**
Effective teaching	.09	.51**
Quality interaction	-.04	.19
Supportive environment	-.08	.37**

NOTE. HIP 1= The correlation between NSSE and HIP, N = 208.
NOTE. HIP 2= The correlation between FSSE and HIP, N = 81; **p < .01, *p < .05.

As Table 37 shows, none of the core NSSE indicators was significantly related with HIP scales. Though not significant, HIP was negatively correlated with the reflective and integrative learning, discussion with diverse others, quality of interactions, and supportive environment engagement indicators. By contrast, most of the core FSSE indicators showed significant correlations with HIP scales, except for the quality of interactions engagement indicator (r = .19, p = .086); the

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remaining engagement indicators showed significant and positive relationships with HIP measures. The correlation coefficients ranged from lower to higher values, indicating the importance that instructors attached to engaging students in HIPs. The observed relationship between the FSSE core engagement indicators and the HIP scale indicates the importance instructors place on designing and implementing educational activities that enable students to engage in complex cognitive tasks, relate their understandings and experiences to the content at hand, actively engage with and analyze course material, use and understand numerical and statistical information, collaborate with peers in solving problems or mastering difficult material, and interact with and learn from others with different backgrounds.

This finding diverges from the findings reported by Fassett and BrckaLorenz (2020); they reported a significant correlation between all FSSE scales and the HIP scale. However, except for the supportive environment indicator, the correlation coefficients were found to be smaller for most FSSE scales. It is surprising that students' perceptions of their rate of participation on the HIP scale was not correlated with any of the NSSE scales. The NSSE (2020) called SE in HIPs life-changing experiences that require students to invest considerable amounts of time and effort, the facilitation of learning outside of the classroom, quality and meaningful interactions with faculty and other students and collaboration with diverse others, along with the provision of frequent and substantive feedback.

7.4   Student participation rates in core engagement indicators (NSSE)

In order to assess SE in academic, social, and work-related educational experiences, students' participation rate in core NSSE indicators and HIP measures were examined. Empirical evidence from NSSE reports showed that the rate of

engagement and achievement in educational outcomes varied among students (NSSE, 2013). Accordingly, assessing students' perceptions of the rate of their participation in engagement indicators and HIPs is considered essential in SE research. The following tables summarize student rates of participation by gender and departments or discipline of enrollment.

7.4.1 Participation rate by gender

In order to determine whether differences in gender contributed to variations in students' participation in NSSE engagement indicators, an independent sample t-test was carried out between the respondent's gender independent variable and the engagement in core NSSE engagement indicators outcome variable.

Table 38. NSSE participation rates by gender

SE in core engagement indicators	Male		Female		t (206)	p	r
	M	SD	M	SD			
Higher-order learning	2.7	.68	2.5	.68	-1.12	.26	0.08
Reflective and integrative learning	2.6	.60	2.5	.62	-.77	.44	0.05
Learning strategies	2.7	.68	2.7	.73	-.03	.97	0.00
Quantitative reasoning	2.3	.80	2.2	.71	-.63	.53	0.04
Collaborative learning	2.7	.71	2.7	.66	.50	.62	0.03
Discussion with diverse others	2.4	.81	2.3	.73	-.80	.43	0.06
Student-faculty interaction	2.2	.85	2.2	.80	-.26	.80	0.02
Effective teaching practices	2.7	.70	2.7	.67	-.18	.86	0.01
Quality of interaction	3.1	.93	2.9	.86	-1.33	.18	0.09
Supportive environment	2.6	.66	2.5	.63	-.98	.33	0.07

Note: Male (N=108), Female (N=100), M= Mean, SD= Standard Deviation, t= Statistic for Independent Sample T-test, r= Effect Size

As Table 38 shows, the average response rate for both genders varied on a four-point scale. The mean rating of students' perceptions of all engagement indicators ranged from 2.2 to 3.1. This finding indicates that, on average, both genders

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participate in activities and experiences that advance students' academic, social, and work-related skills and competencies. However, compared to female students, the average participation rate for male students in most engagement indicators was slightly higher. In fact, the participation rate for female students was higher only in the collaborative learning engagement indicator ($M = 2.7$, $SD = .66$). By contrast, the average participation rate for the learning strategies engagement indicator was similar for both genders. This indicates that both genders considered the emphasis on the implementation of engaging learning strategies crucial to improving their learning and outcome achievements. However, the observed mean differences in all engagement indicators were not significant. As Table 38 indicates, there was no significant effect[7] for gender, even though the average male student participation rate in core NSSE indicators was higher ($M = 2.6$, $SD = .46$) than female students ($M = 2.5$, $SD = .45$).

7.4.2   Participation rate by department

Empirical evidence suggests that engagement varies across various academic disciplines (e.g., Hagel et al., 2012; Nelson Laird et al., 2008). Accordingly, students' rates of engagement across four academic disciplines were compared. To enable comparisons between departments, three dummy variables were created for the main field of study or discipline students enrolled variable. Based on the analysis, the average student response rate in all departments showed variations on a four-point scale. The mean rating of students' perceptions of their engagement in all engagement indicators ranged from 1.7 to 3.4. However, except for the quality

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[7] According to NSSE (2021), an effect size of 0.2 is often considered small, 0.5 moderate, and 0.8 large. The effect sizes for all engagement indicators were found to be below 0.1. Therefore, the differences observed were not significant.

of interactions engagement indicator, the average rate of student participation in most of the engagement indicators was below 3.0.

Table 39. NSSE participation rate by department

Core NSSE engagement indicators	AF		BM		CS		MM	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Higher-order learning	2.7	.69	2.5	.72	2.4	.60	2.7	.58
Reflective and integrative learning	2.6	.62	2.5	.58	2.4	.64	2.6	.56
Learning strategies	2.7	.71	2.7	.84	2.6	.58	2.8	.63
Quantitative reasoning	2.3	.78	2.3	.67	2.1	.78	2.4	.68
Collaborative learning	2.7	.65	2.8	.56	2.5	.89	2.9	.56
Discussion with diverse others	2.4	.73	2.4	.87	2.1	.72	2.4	.79
Student-faculty interaction	2.4	.84	2.1	.82	1.7	.64	2.4	.72
Effective teaching practices	2.7	.67	2.8	.70	2.4	.68	2.9	.54
Quality of interaction	3.0	.89	3.1	.89	2.7	.84	3.4	.88
Supportive environment	2.6	.63	2.3	.71	2.3	.56	2.5	.56

Note: AF = Accounting and Finance (N=100), BM = Business Management (N=46), CS = Computer Science (N=39), MM = Marketing Management (N=11), *M* = Mean, *SD* = Standard Deviation

In order to test whether the observed mean differences were significant, ANOVA was conducted using the core engagement indicators as outcome variables and student discipline or department as an independent variable. The analysis revealed that variations in disciplines enrolled had an effect on the rate of students' perceptions of student-faculty interaction (F (3, 204) = 7.2, p = .000, r = 0.33). Similarly, there was a significant effect of discipline on students' perceptions of the implementation of effective teaching (F (3, 204) = 4.2, p = .007, r = 0.2), of the quality of interaction (F (3, 204) = 2.8, p = .048, r = 0.28), and the existence of a supportive environment (F (3, 204) = 4, p = .008, r = 0.24). The observed effect sizes corroborate these, which support the claim that disciplinary differences contribute to variations in SEs.

In order to determine where the differences exist, post hoc tests were conducted. Tukey's HSD test for multiple comparisons of disciplines showed that the mean value of students' perceptions of their engagement in "Student-Faculty Interaction" engagement indicator was significantly different between departments of Accounting and Finance and Computer Science (p = 0.00, 95% C.I. = [20.81, 5.38]) and departments of Marketing Management and Computer Science (p = 0.06, 95% C.I. = [24.38, 2.89]). Similarly, the mean value of students' perceptions of "Supportive Environment" engagement indicator was significantly different between departments of Accounting and Finance and Business Management (p = 0.18, 95% C.I. = [12.42, .83]) and departments of Accounting and Finance and Computer Science (p = 0.48, 95% C.I. = [12.31, .03]).

On the other hand, the mean value of students' perceptions of "Effective Teaching" engagement indicator was significantly different between departments of Business Management and Computer Science (p = 0.30, 95% C.I. = [15.59, .56]) and departments of Marketing Management and Computer Science (p = 0.14, 95% C.I. = [19.72, 1.57]). The post hoc test result also showed the mean value of students' perceptions of their engagement in "Quality of Interaction" engagement indicator was significantly different between departments of Marketing Management and Computer Science (p = 0.39, 95% C.I. = [19.72, 1.57]). Though student's perception of their engagement in "Higher Order Learning" did not show significant mean value difference between departments, the post hoc test revealed the existence of significant mean difference between the department of Accounting and Finance and Computer Science (p = 0.37, 95% C.I. = [24.56, .45]). This seems support previous findings that suggested disciplinary differences on the rate of SE. However, the observed lack of significant differences between departments in several engagement indicators seems to indicate the limitations of departments in terms of organizing activities and experiences that advance students' engagement in deep, creative, and collaborative learning experiences. It

also suggests the limitations of the educational setting to provide a supportive learning environment where students can develop their interpersonal relationships skills through interacting with the faculty.

7.4.3   Student and instructor perceptions of SE in HIPs

Participation in HIPs contributes to student learning and their achievement of desired educational outcomes. One NSSE report (2013) argues that some educational practices influence student learning and achievement more than others. The successful implementation of HIPs requires the investment of substantial amounts of time and effort, the facilitation of learning beyond the classroom, quality and meaningful student-faculty interaction, the organization of a collaborative and supportive learning environment, and the provision of engaging and constructive feedback (Kuh, 2008; NSSE, 2013). Due to their perceived importance, the rates of student participation in HIPs (engagement in internships, holding leadership roles, service learning, and culminating senior experiences) were measured using the adapted NSSE and FSSE items. Table 40 presents the results.

Table 40.   Inclusion of community-based learning experiences in undergraduate courses

Item	Categories	Students		Instructors	
		N	%	N	%
The extent to which courses included a community-based project (service learning)	None	36	17	15	19
	Some	76	37	47	58
	Most	57	27	12	15
	All	30	14	5	6
Total		**199**	**95**	**79**	**98**

Source: Field data from NSSE and FSSE (October 15–20, 2021).

As Table 40 shows, a majority of instructors (58%) and about a third of students (37%) reported the inclusion of CBE experiences in some courses. Both groups' responses suggest that some, though certainly not all, courses included some form of CBE element. This finding indicates that students are engaged in

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service learning activities designed to promote the development of their work-related skills and competencies.

Table 41. Participation rate in HIPs (students and instructors)

Discipline	HIPs (students)					HIPs (instructors)				
	M	SD	SE	CLU	CLL	M	SD	SE	CLU	CLL
Accounting and finance	2.5	.67	.07	2.6	2.3	3.3	.76	.14	3.6	3.0
Business management	2.4	.59	.09	2.6	2.3	3.1	.74	.37	4.3	1.9
Computer science	2.5	.57	.09	2.7	2.3	3.4	.67	.16	3.7	3.0
Marketing management	2.6	.54	.11	2.8	2.3	3.5	.79	.17	3.8	3.1
Economics						3.3	.14	.10	4.6	2.0
Education						3.0	.72	.42	4.8	1.2
Psychology						3.9	.14	.10	5.2	2.6

Notes: M = Mean; SD = Standard deviation; SE = Standard error of the mean; upper and lower bounds represent the 95% confidence interval (mean +/- 1.96 * SE)

As Table 41 shows, the average student and instructor response rates on HIP in all departments varied across a four-point scale. While the mean rating of students' perceptions of their engagement for all HIP indicators ranged from 2.4 to 2.6, the mean response rate for instructors showed a wider range of 3.0 to 3.9. The average rate of student participation in most HIP engagement indicators was below 3.0. This suggests that—irrespective of discipline—the rate of SE in internship, leadership, service learning, and culminating senior experiences was lower. Furthermore, the mean response rate suggested that students were either planning to engage in such educational practices or had no intentions to do so; very few were undecided.

From the students' point of view, the observed institution is not diligently organizing and providing CBE experiences for students. However, irrespective of differences in subjects, instructors' mean rating was above 3.00, indicating that instructors did attach importance to engaging students in HIPs. This difference suggests variations between students' and instructors' perceptions of SE in HIPs, which contradicts the findings obtained on the extent to which courses included community-based learning experiences and suggests the existence of gaps in

implementation. Though the courses included various forms of service learning experiences (e.g., internships, field experiences, and community-based project work), they were not being implemented as intended. That could affect the quality of students' learning, especially their achievement of higher-order learning outcomes. Nevertheless, NSSE evidence has consistently found SE in HIPs to be associated with higher achievement and retention (NSSE, 2021b). To gain much from HIPs, institutions need to identify aspects of the undergraduate experiences that can be improved through changes in institutional policies and practices (Fassett & BrckaLorenz, 2020).

7.5   Student and instructor perceptions of time spent on academic and non-academic tasks

The amount of time students invests in academic tasks (Prater, 1992), on-campus, and off-campus educational experiences contributes to their learning and development of academic, social, and work-related skills and competencies (Buckley, 2015; NSSE, 2015; Trowler, 2010). Numerous studies have reported a relationship between time on task and student achievement (Center on Instruction/National High School Center, 2010). Astin (1984) argues that SE contributes to university quality by providing evidence of the amount of time and effort students put into their studies. A highly involved student is one who spends much time in classroom, on-campus, and off-campus instructional activities, participates actively in student organizations, and interacts frequently with faculty members and other students. Accordingly, the NSSE and FSSE items measure the amount of time spent by students using a variety of academic and non-academic engagement indicators, such as time spent in preparing for class (studying, reading, writing, doing homework or lab work, analyzing data,

rehearsing, and other academic activities), amount of time spent in on-campus and off-campus experiences (co-curricular activities, community service, socializing, etc.).

7.5.1 Time devoted to on- and off-campus educational experiences

As Table 42 indicates, the average amount of time spent by students on academic and non-academic educational experiences ranged between 2.5 to 3.2 hours per week. Students studying marketing management and accounting and finance spent more time on such experiences than those studying computer science and business management.

Table 42. Amount of time spent in academic and non-academic educational experiences

Discipline	Time spent in on-campus and off-campus educational activities (students)					Time spent in on-campus and off-campus educational activities (instructors)				
	M	SD	SE	CLU	CLL	M	SD	SE	CLU	CLL
Accounting and finance	3.1	1.20	.12	3.4	2.9	3.0	1.36	.24	3.5	2.5
Business management	2.5	1.05	.15	2.8	2.2	2.9	.46	.23	3.6	2.2
Computer science	2.7	.87	.14	3.0	2.5	2.6	1.41	.34	3.3	1.8
Marketing management	3.2	.97	.20	3.6	2.8	2.6	.90	.20	3.0	2.2
Economics						2.7	.71	.50	9.1	-3.6
Education						3.6	3.80	2.20	13.7	-5.8
Psychology						1.6	.40	.29	5.2	-2.1

Notes: M = Mean; SD = Standard deviation; SE = Standard error of the mean; upper and lower bounds represent the 95% confidence interval (mean +/- 1.96 * SE)

In order to test whether the observed mean differences were significant, ANOVA was conducted, using the time spent on academic and non-academic tasks as the outcome variable and discipline as an independent variable. The analysis revealed that disciplinary differences had an effect on the amount of time spent by students (F (3, 204) = 4.3, p = .006, r = 0.25).

On the other hand, the mean response rates of instructors revealed different perceptions. As Table 42 shows, the average amount of time instructors think their

students spend on academic and non-academic educational experiences ranged between 1.6 to 3.6 hours per week. Compared to students' mean response rates, instructors' average ratings for major courses were higher. The rates for instructors in accounting and finance, business management, and computer science as majors were lower than for instructors teaching common or supportive courses (e.g., education and economics). The rate for instructors teaching supportive courses related to psychology was below the mean; these findings indicate that variation in discipline taught contributes to differences in the amount of time instructors think students are spending in academic and non-academic educational experiences. In addition, the design, organization, and provision of such enriching educational experiences vary by discipline. Though time on task does have a relationship with students' achievement, this association needs to carefully consider the appropriateness, effectiveness, efficiency, and meaningfulness of the time allocated for instruction (Aronson et al., 1998).

7.5.2   Time spent on reading and writing tasks

The NSSE considers SE in writing and reading tasks to be an essential component of measuring the extent to which students are engaged in purposefully designed educational activities intended to boost their educational and personal development. In the present study, too, students' and instructors' perceptions of the amount of time spent by students on writing and reading tasks were measured using NSSE and FSSE indicators.

Table 43.   Time on reading tasks (students and instructors)

Parameters	Response category	Students		Instructors	
		N	%	N	%
The amount of time spent on assigned reading tasks					
	Very little	23	11		
	Some	59	28		
	About half	51	24		
	Most	51	25		
	Almost All	24	12		
Total		**208**	**100**		
The extent to which students complete assigned reading tasks	None			8	10
	Some			45	55
	Most			18	22
	All			7	9
Total				**78**	**96**

Source: Field data from NSSE and FSSE (October 15–20, 2021).

As Table 43 shows, the amount of time students spent on assigned reading tasks varied quite dramatically. About 61% of students indicated spending half to almost all the allotted time on assigned reading tasks. Thus, most of the time students spent preparing for class was dedicated to assigned reading. The students' responses are largely consistent with the instructors' views. About 55% of instructors indicated that students completed some of the assigned reading tasks. This figure increases to 86% when adding instructors indicated most and all assigned reading tasks were completed by students. However, about 10% of instructors indicated that students come to class without completing assigned reading tasks.

Table 44. Number of writing tasks (students and instructors)

		Categories	Students		Instructors	
			N	%	N	%
The number of papers, reports, or other writing tasks assigned	Up to 5 pages	0 papers	16	8	30	37
		1–2 papers	46	22	26	32
		3–5 papers	81	39	8	21
		6–10 papers	36	17	4	5
		11 or more papers	24	12	4	5
	Total		**203**	**98**	**81**	**100**
	6–10 pages	0 papers	21	10	37	46
		1–2 papers	46	22	23	28
		3–5 papers	68	33	8	19
		6–10 papers	52	25	11	4
		11 or more papers	17	8	2	3
	Total		**204**	**98**	**81**	**100**
	11 or more pages	0 papers	44	21	45	56
		1–2 papers	40	19	16	20
		3–5 papers	46	22	7	9
		6–10 papers	40	19	9	10
		11 or more papers	32	15	4	5
	Total		**202**	**96**	**81**	**100**

Source: Field data from NSSE and FSSE (October 15–20, 2021).

The findings in Table 44 indicate that various lengths of papers, reports, and other writing tasks were assigned to students in the academic semester that was studied. Though there were differences in the number and total length of writing tasks, student ratings were higher for number of papers (between three and five) for all page lengths. However, instructors rating was higher for the no zero-paper category, followed by one to two papers for all the three-page papers. From instructors' point of view, SE in writing tasks is limited to writing tasks that require smaller numbers of pages. These variations could be due to a lack of clear information on the number of assigned writing tasks included in course catalogues and thus reflect the lack of a careful and engaging instructional design and planning process.

In order to obtain a clear picture on the amount of time spent by students on writing tasks of whatever length, respondents' mean ratings were computed for all

departments. As Figure 5 shows, the average amount of time spent by students on writing tasks ranged was between 2.8 and 3.1 hours per week. The number was higher for accounting and finance and marketing management students. This finding reveals disciplinary variations in the number of writing tasks assigned to students.
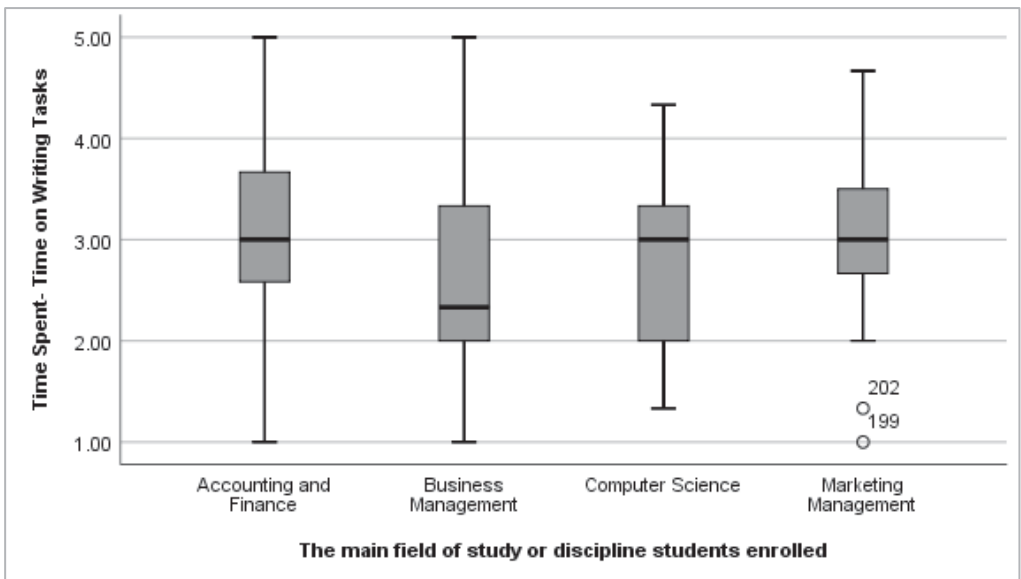
Figure 6.   Time spent on writing tasks by disciplines (students).

On the other hand, the mean response rates of instructors reveal slightly different perceptions. As Figure 6 indicates, the average amount of time instructors think their students spend on writing tasks, regardless of length, ranged between 1.3 and 3.8 hours per week. The mean response rates for instructors teaching in common or supportive courses were higher than for those teaching major courses. This shows that differences in the discipline taught contribute to variations in the number of writing tasks assigned to students. Compared to students' mean response rates, instructors' average ratings for major courses were lower. This

observed variation in the mean response rate raises concern about the instructional design and implementation process at the observed institution.
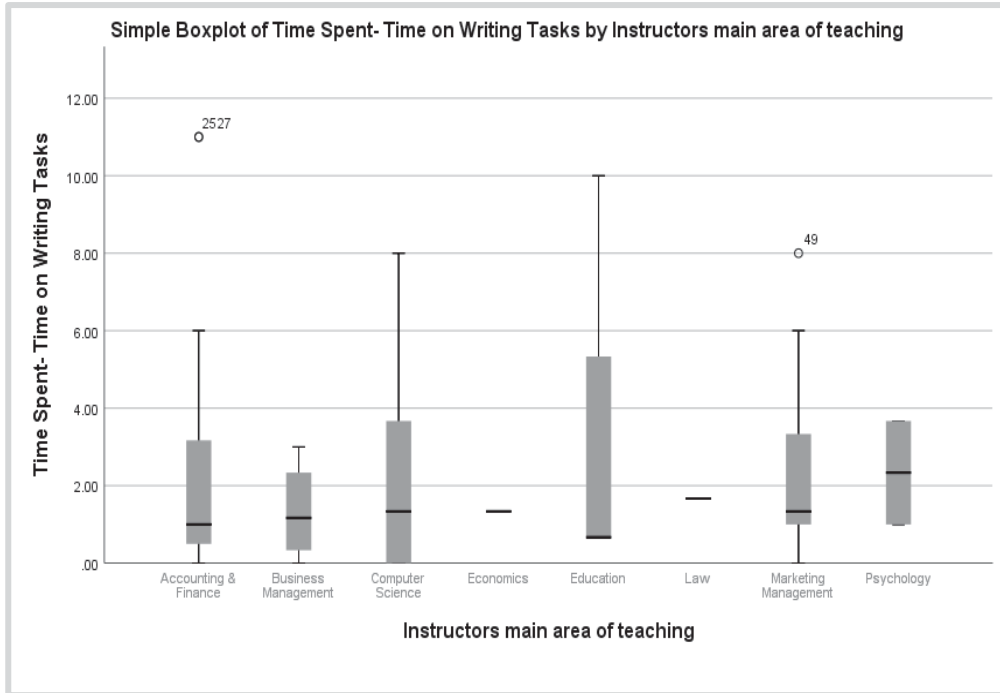
Figure 7. Time spent on writing tasks by discipline (instructors).

The assessment of the institutional support to encourage students to spend a significant amount of time in studying and on academic work generally revealed that both instructors and students perceived the services and activities undertaken by AdU as instrumental in increasing the amount of time students spend studying and on various academic tasks. This finding supports previous reports (e.g., Aronson et al., 1998; Astin, 1993; Coates, 2005; Kuh, 2008) on the role institutions play in deploying the resources and learning opportunities that are essential to transforming students' college experience and learning outcomes.

7.6 Student and instructor perceptions of course challenges, institutional contributions, and future prospects

7.6.1 Perceptions on the course challenge level

Table 45 presents students' and instructors' perceptions of the extent to which the courses offered challenged students to do their best work. To some extent, that is true. However, 15% of instructors and 19% of students felt that courses were not challenging students as expected, which indicates inconsistency in the level of challenges posed to student by the courses offered.

Table 45.   Students' and instructors' perceptions of course challenge level

Item	Categories	Students		Instructors	
		N	%	N	%
The extent courses taught challenged students to do their best work	Very little	39	19	12	15
	Some	67	32	29	36
	Quite a bit	68	33	28	35
	Very much	34	16	11	14
Total		**208**	**100**	**80**	**100**

Source: Field data from NSSE and FSSE (October 15–20, 2021).

In order to assess whether there are disciplinary variations in course challenge ratings, students' and instructors' mean response rates were compared across major, supportive, and common courses. As Figure 8 indicates, the average level of challenge was higher for courses offered in marketing management, followed by business management and accounting and finance. This finding reveals disciplinary variations on the level of course challenge.
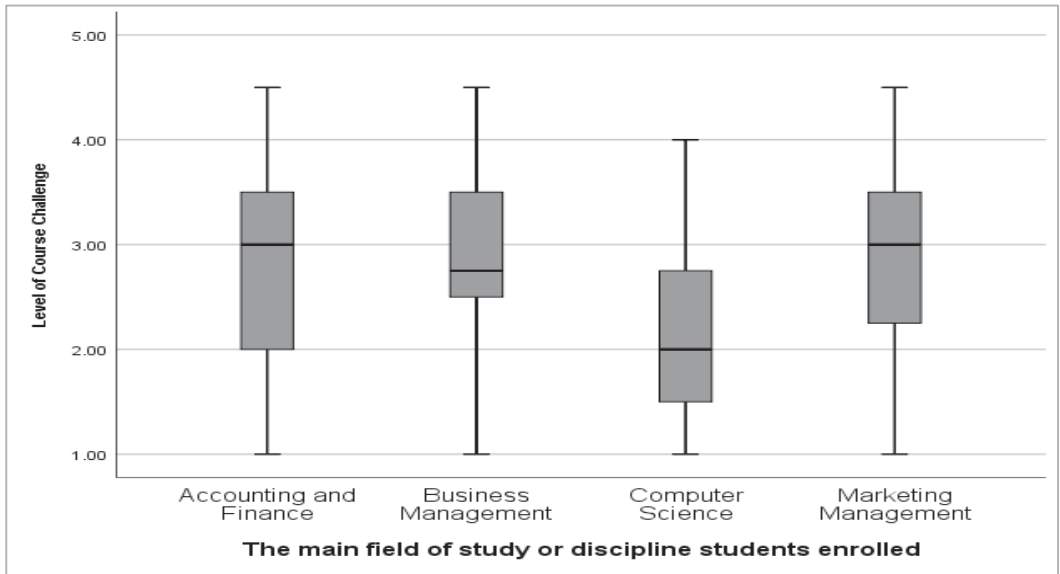
Figure 8. Level of course challenge by discipline

Compared to students' perceptions, the mean response rates of instructors diverged slightly. Although the average response rates for all sampled instructors on course challenge levels ranged between 2.9 to 3.8, instructors teaching common or supportive courses considered their courses more challenging than those teaching major courses.

7.6.2 Students' perceived gains and faculty goals

Students' perceptions of the extent to which their educational experiences at AdU contributed to their knowledge, skills, and personal development was assessed using items from the NSSE indicators. In addition, the extent to which instructors felt that the courses they teach were structured to help students learn and develop cognitive, communicative, social, and work-related skills and competencies was measured using items from the FSSE. The results appear in Table 46.

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Table 46.   Students' and instructors' perceptions of the contribution of institutions

Discipline	Institutional contribution–Students' perceived gains					Institutional contribution–Faculty goals				
	M	SD	SE	CLU	CLL	M	SD	SE	CLU	CLL
Accounting and finance	2.7	.65	.07	2.7	2.6	3.1	.67	.12	3.4	2.9
Business management	2.7	.62	.09	2.9	2.5	3.4	.49	.24	4.2	2.6
Computer science	2.5	.59	.09	2.7	245	3.2	.49	.12	3.5	2.9
Marketing management	3.2	.68	.14	3.5	2.9	3.2	.62	.13	3.5	2.9
Economics						3.3	.78	.55	10.2	-3.7
Education						2.9	.55	.32	4.2	1.5
Psychology						3.9	.14	.10	5.2	2.6

Notes: M = Mean; SD = Standard deviation; SE = Standard error of the mean; upper and lower bounds represent the 95% confidence interval (mean +/- 1.96 * SE)

As Table 46 shows, students rated their perceived educational gains as ranging from 2.5 to 3.2 on average. The rating was higher among marketing management students, followed by accounting and finance and business management. However, the observed mean ratings indicate that students' perceptions of the contribution of AdU in transforming their knowledge, skills, and personal development was not very high. In order to test whether the observed mean differences were significant, ANOVA was conducted using institutional contribution as an outcome variable and discipline as an independent variable. The analysis showed that disciplines had an effect on students' perceptions of institutional contribution (F (3, 204) = 4.9, p = .005, r = 0.27). This finding supports previous research findings that indicated disciplinary variations on the level of learning gains and the level of academic, social, and work-related outcomes attained by students (Nelson Laird et al., 2008; Leach, 2016).

By contrast, the mean response rates for instructors ranged between 2.9 to 3.9. The rating was higher for instructors in business management, followed by computer science and marketing management. Compared to the mean ratings for major courses, the ratings for two common or supportive courses (economics and psychology) were higher. However, the mean ratings for all major courses were above 3.0. This indicates that a considerable number of courses are structured to

help students learn and develop their cognitive, communicative, social, and work-related skills and competencies. Instructors perceived the existing course arrangement as designed to enable students to transform their knowledge, skills, and experiences.

7.6.3 Students' overall experience and future prospects

Students were asked to rate their entire educational experience at AdU and whether they would want to attend that university in the future; Figure 8 summarizes the results.
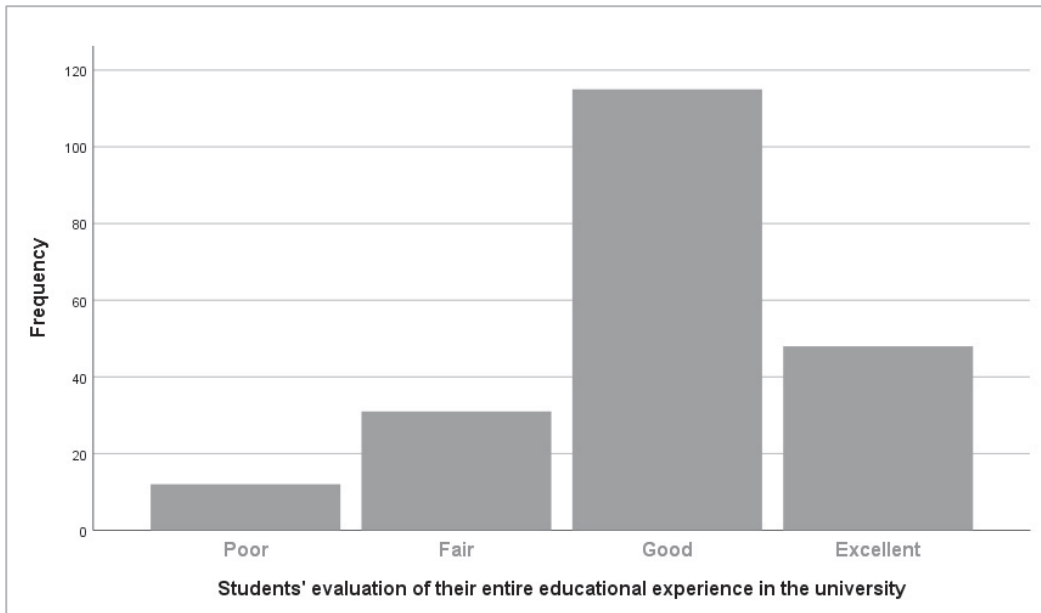
Figure 9. Students' overall educational experience at AdU.

As Figure 9 shows, the majority of sampled students rated their overall educational experience as good or excellent. Similarly, a majority of sampled students would enroll at AdU in the future. It is also pivotal to note that a considerable number of

sampled students stated they would probably or definitely not enroll at AdU in the future.
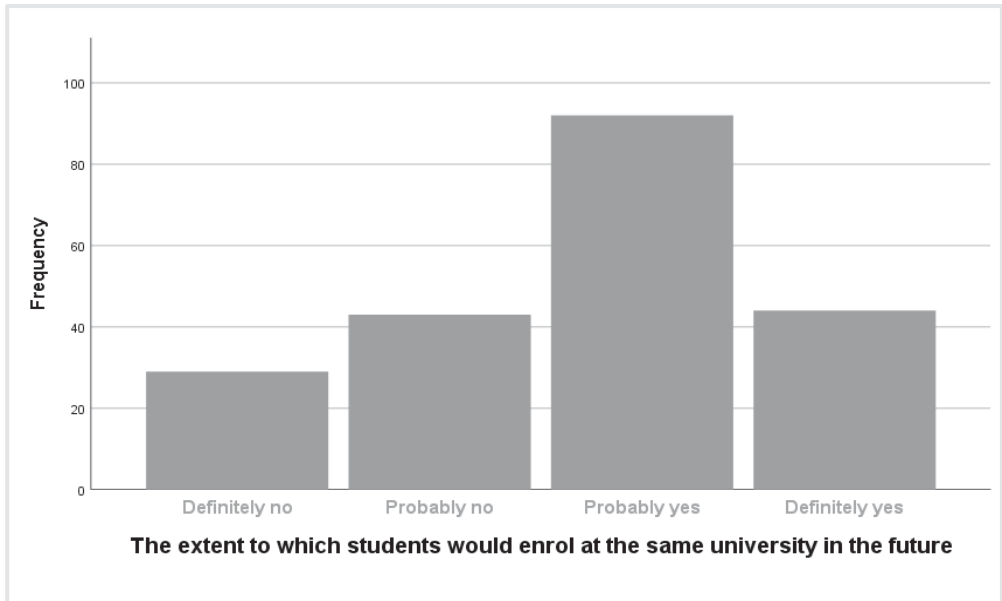
Figure 10. Students' future enrollment preferences.

This response rate diverges from the students' mean responses on their perceptions of the contribution of AdU to transforming their academic, social, and work-related skills and competencies.

To examine the relationships between gender, discipline, educational experience, and future prospects, department-level comparisons were made. The analysis revealed that the majority of both males (95%) and females (93%) rated their entire educational experience at AdU as fair, good, or excellent. Although about 18% of students enrolled in computer science rated their educational experiences at AdU as poor, the ratings for the remaining three departments ranged from fair to excellent. Overall, a majority of students rated their entire educational experience at AdU as, at a minimum, good.

Similarly, except for computer science students who would probably not enroll at AdU, most students in the other observed departments would enroll again at AdU if given the opportunity. This finding corroborates instructors' perceptions of the importance of institutional support and course structure in enabling the development of students' academic, social, and work-related skills; it could also indicate the limited role that differences in gender and discipline play in influencing the level of educational experiences gained in HEIs.

7.7 Predictors of SE

The third research question posed involves examining the extent to which SE predicts student achievement, as measured by CGPA. Both linear and multiple regression analyses were performed to identify the variables that predict or affect SE and achievement. To fit the data for both forms of regression analysis, the average scores of all engagement scales were computed to create the *SE* variable. In addition, students' ages and CGPAs were grand mean centered. Dummy variables were also created for the dichotomous (or binary) variables of gender, department, and parental education level.

The effect of the student engagement independent variable on the student achievement dependent variable was examined using linear regression analysis, the results of which showed that the emotional engagement, age, gender, parental education level, and discipline variables were used as predictors of SE in multiple regression analyses. Two approaches were followed in performing multiple regression analyses. In the initial step, the effect of each predictor variable on *SE* was examined. After assessing the relative importance and significance level of each predictor entered in the first regression, the final regression analysis was performed with only those variables that significantly contributed to predicting *SE*. These

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variables were entered hierarchically to provide more meaningful predictions. Accordingly, the variables that significantly predicted SE were entered step by step in the multiple regression model. The results of both regression analyses are presented below.

Table 47.   Predictors of *SE* (linear regression)

Variables	Model	
	B	SE
Constant	24.6**	.19
Age	.41*	.17
Discipline	-1.5*	.49
Sense of belonging	.28**	.04
Model statistics		
R^2	.32	
ΔR^2	.32	
F	11.8	
ΔF	11.8	

Note. N = 198. B = Unstandardized coefficient. **p < .001. *p < .05.

In the initial regression analysis, the gender, age, discipline, parental level of education, CGPA, and sense of belonging (emotional engagement) variables were entered into the regression model as predictor variables. As Table 47 reveals, sense of belongingness, age, and discipline significantly predicted the *SE* dependent variable. Together, these predictor variables explained about 32% of the variation in *SE*. This result indicates the existence of variables that might affect SE other than those measured in this study. Similar results have also been found in previous studies. For instance, Nelson Laird et al. (2008) and Leach (2016) found significant differences between disciplines taught and SE engagement scales.

Table 48.   Predictors of SE (Multiple regression)

Variables	Model 1		Model 2		Model 3	
	B	SE	B	SE	B	SE
Constant	20.9**	1.5	21.8**	1.5	24.6**	1.8
Sense of belonging	.31**	.04				
Age			.51**	.17		
Discipline					-1.4*	.49
Model statistics						
R^2	.21		.25		.28	
ΔR^2	.21		.04		.03	
F	52.9		32.3		25.0	
ΔF	52.9		9.4		8.1	

Note. N = 198. B = Unstandardized coefficient. **p < .001. *p < .05.

Table 48 shows that, after controlling for student age and discipline, student belonginess (the perception of the extent to which they feel they belong at the university) showed significant positive effects on their engagement (β = .46, p = .000). Similarly, age showed significant positive effect on engagement (β =.19, p=.002). Though significant, the discipline negatively predicted *SE* (β = -.18, p = .005). While the sense of belonginess variable accounted for 21% of variations in *SE*, the age and sense of belongingness variables combined to explain 25% of the variations in *SE*. Together with the discipline variable, all predictor variables explained 28% of the variation in *SE*. The finding obtained from the hierarchical multiple regression reiterates the importance of considering extraneous factors that might influence SE at the observed university.

The SE literature has long argued for the existence of a strong relationship between SE and the achievement of a number of outcomes (e.g., Coates, 2005; Kahu & Nelson, 2018; Kuh, 2003; Kuh et al., 2008; Lee, 2014; NSSE, 2000, 2013; Wawrzynski et al., 2012). Scholars in the field have also called for the consideration of SE data in judging the quality of students' learning and institutional effectiveness (Coates, 2005). The first-phase, qualitative findings—that is, the generated themes, concepts, and measures—also supported this line of argument. Accordingly, the

present study examines the effect of SE on student achievement, with Table 49 showing the linear regression results.

Table 49. The relationship between SE and student achievement

Variables	Model	
	B	SE
Constant	-.23*	.11
SE	.01*	.01
Model statistics		
R^2	.03	
ΔR^2	.03	
F	5.51	
ΔF	5.51	

Note. N = 208. B = Unstandardized coefficient. *p < .05.

The linear regression analysis indicates that SE significantly predicted students' achievements, as measured by CGPA. Though small in magnitude, this finding is consistent with previous findings that found a positive relationship between SE and students' achievement of learning outcomes. For instance, Kahu (2013) and Kahu and Nelson (2018) considered learning achievement to be a proximal consequence of SE. In addition, Hu and McCormick (2012) and Axelson and Flick (2011) found a relationship between SE and college outcomes, as measured by higher grades, college persistence, and graduation rates. However, the effect of SE was accounted for 2.3% of the variation in student achievement in that study. This means that 97.7 % of the variation in students' achievement might be accounted for by other variables or factors. Supporting this claim, Bertolini et al. (2012) indicated that there are several factors influencing student achievement. They discussed personal, institutional, environmental, and larger system-related factors that affect student learning and achievement. Therefore, the small magnitude observed regarding the effect of SE on student achievement in the present study suggests the importance of considering extraneous variables that might influence

the relationship between SE and students' achievement of desired learning outcomes.

7.8   Summary of major findings

The second, quantitative phase of the study was undertaken to test the broader themes generated in the first, qualitative phase. The themes, indicators, and measures inductively explicated from the careful analysis and synthesis of Ethiopian HE policy, strategy, and regulatory frameworks, undergraduate curricula, and teaching and learning practices were used as a benchmark to determine the most appropriate survey tool for testing the findings from the qualitative phase of the study.

In order to locate that survey instrument, comparisons were made between the NSSE themes and indicators and other SE survey tools. Compared to those alternatives, the NSSE and FSSE survey instruments were found to be the most appropriate. Before the data were collected, a number procedures were carried out to ensure the reliability and validity of the 2020 version of NSSE and FSSE survey items, indicators, and measures.

The quantitative-phase data analysis results led to a number of findings related to demographic characteristics of respondents', students', and instructors' ratings of their perceptions of the various SE indicators measured. In addition, the findings provided evidence of the construct validity and reliability of both instruments to shed light on the psychometric properties of the instruments used to collect the data in the quantitative phase of the study. Moreover, the correlation and regression analysis results indicated various degrees of association between SE indicators, HIPs, on- and off-campus educational experiences and institutional

contributions. Overall, the points below capture the essence of the second-phase, quantitative data analysis.

The instructor sample was dominated by males, while instructors' engagement in research activities and administrative positions was low. However, their years of teaching experience, qualifications, and exposure to one form or another of pedagogic training would make them ideal to teach undergraduate students. In addition, the number of students and courses that the instructors were assigned to teach appears manageable in terms of engaging students in various forms of student-centered teaching, learning, and assessment processes and practices.

Unlike instructors, the student demographics indicated a nearly even number of male and female students, while their age, unsurprisingly, skewed heavily toward the young adult cohort. Though the majority of the sample was drawn from accounting and finance, which can lead to immediate employment, most students aspired to continue their education beyond completing a bachelor's degree. This aspiration might be related to the amount of time students spent studying and on other academic tasks. A large number of students' parents had no formal education, and far less than had any post-secondary education. Moving up the educational ladder, students' mothers' education levels showed a declining trend when compared to their fathers.

As to the psychometric properties of the instruments used, the PCA and reliability analysis conducted on the NSSE and FSSE instruments provided mixed results. Though the requirement to run PCA analysis was fulfilled, the results from the Ethiopian HEIs suggest a slightly different component structure. Evidence obtained from PCAs on NSSE and FSSE instruments suggests that not all engagement indicators consistently reflected the engagement themes and indicators generally reflected in the US NSSE and FSSE component structures. For instance, except for the factor structures under the NSSE learning strategy, discussion with diverse others, and quality of interactions engagement indicators, which

consistently reflected the factor structures observed in the NSSE instrument, the component loadings for the other seven engagement indicators showed slight to significant variations.

As opposed to the NSSE factor structure, the FSSE factor structures were more consistent with the factor structures observed in the dominant FSSE survey items. The PCA results for the adapted FSSE indicated that the component structures under several FSSE engagement indicators (higher-order learning, reflective and integrative learning, collaborative learning, discussion with diverse others, quality of interactions, and supportive environment) consistently reflected the factor structures observed in the FSSE instrument. However, as with the NSSE, the factor loadings for the remaining four engagement indicators showed slight to significant variations. The inconsistencies observed in the factor structures of the adapted NSSE and FSSE items could be attributed to contextual differences, small sample size, and the inability to collect and analyze data from a diverse group of HEIs. The inclusion of a public university in the study might also have produced a different result. This finding appears to support the notion that contextual variations and differences in respondent characteristics determine the relationships between engagement indicators and the variables that make up the engagement theme (e.g., Tadesse et al., 2018; Wawrzynski et al., 2012).

The findings of from the reliability analysis confirmed that the internal consistency of the factors or scales extracted from the adapted NSSE ranged from higher to comparatively low reliability values. On the other hand, the reliability values for FSSE items showed good internal consistency. The reliability values obtained for the adapted NSSE indicated that the items did measure the latent variable *SE*, and the observed variations in scale reliability values might have been due to differences in the number of items in the scales and the number of people who responded to the scale items.

The correlation coefficients measured for the engagement indicators under the NSSE and FSSE themes ranged from moderate to larger values, with all indicating statistically significant relationships. However, the correlations between the core engagement indictors and HIPs did show variations. Indeed, none of the core NSSE indicators was significantly related with the HIP scales. By contrast, most of the core FSSE indicators showed significant correlations with the HIP scales.

Students and instructors' perceptions of the rate of SE in the core engagement indicators, HIPs, and on-campus and off-campus educational experiences showed mixed results. For instance, compared to female students, the average participation rate for male students was higher in most of the engagement indicators measured. In addition, differences in discipline showed variations in SE rates. Though this finding appears to support claims regarding the contribution of disciplinary differences to variations in SE rates, the concentration of students' participation rates around the means indicate the limitations of departments in designing and implementing educational activities that advance their involvement in deep, creative, and collaborative learning experiences. It also suggests a limitation of the educational setting in providing a supportive learning environment where students develop interpersonal relationship skills by interacting with the faculty.

Even if most courses were found to include some form of CBE experiences, the findings of the study indicated that, regardless of discipline, students gave low ratings to their engagement in internship, leadership, service learning, and culminating senior experiences. By contrast, instructors' ratings indicated a higher degree of student participation in HIPs. This contradiction suggests the existence of implementation gaps. Though the observed courses did include different forms of service learning experiences (e.g., internships, field experiences, and community-based project work), they were not implemented as intended.

As to the amount of time students spent in on- and off-campus educational activities and writing and reading tasks, the study's findings reveal disciplinary

variations. For instance, the average amount of time students spent on major, supportive, and common courses varied to a significant degree, suggesting that disciplinary distinctions contributed to differences in the amount of time students spent on academic and non-academic educational experiences. In addition, the design, organization, and provision of such enriching educational experiences was inconsistent across disciplines. However, students and instructors rated the time spent on reading tasks consistently. For instance, both groups' rating suggested that of the time students spent preparing for class, most of it was devoted to completing assigned reading. The groups diverged when rating SE in writing tasks. While students' ratings were higher for the number of papers between three and five for all page lengths measured, the instructors' ratings were higher for the zero papers, followed by one to two papers for all the three-page papers measured. This indicates that SE in writing tasks is limited to those that require a lower number of pages.

The finding obtained regarding the challenge level of courses and the contribution of AdU to transforming students' knowledge, skills, and experiences was mixed. Though there were differences between students' and instructors' rating levels, the finding suggests disciplinary variations on the level of course challenge and learning gains and the development of academic, social, and work-related outcomes attained by students. In general, the observed mean ratings indicate that students' perceptions of the contribution of AdU to transforming their knowledge, skills, and personal development were not very high. However, the result obtained on students' ratings of their overall educational experiences and future prospects contradicted their ratings on learning gains and personal development.

The regression analysis showed that, from the variables measured, the sense of belongingness, age, and discipline variables significantly predicted SE. Though

small in magnitude, the student engagement variable predicted student's achievement or CGPA. This finding is consistent with previous findings that indicate a positive relationship between SE and the achievement of learning outcomes. The findings obtained from the linear and hierarchical multiple regressions produced a rather unexpected result. For instance, student engagement in HIPs and on- and off-campus educational experiences failed to significantly predict their achievement. All in all, the observed regression analysis results suggest the importance of considering other factors that might influence student achievement in the observed university.

8   DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

This study was based on the premise that transforming SE, educational experiences, and learning outcomes is dependent on the design, development, and implementation of sound HE and QA policies, strategies, curricula, and teaching, learning, and assessment processes. In this context, the study raised three fundamental research questions.

1. To what extent do existing HE and QA policies, structures, and processes emphasize the development of students' college experience and student outcomes?

2. In what ways do the themes generated in the qualitative phase of the study contribute to a comprehensive understanding of SE concepts, dimensions, typologies, and theories from an Ethiopian HE perspective?

3. How does SE influence student achievement and outcomes?

In order to address these questions, the study carefully examined and synthesized existing Ethiopian HE and QA policies, strategies, structures, and processes and their role in enhancing the quality of students' classroom, on-campus, and off-campus educational experiences and their learning outcomes. To this end, the study employed a mixed exploratory sequential design in which two phases of data collection, analysis, and interpretation were undertaken. Dictated by the choice of study design, qualitative and quantitative data were collected from purposefully selected study participants and randomly drawn samples from MOSHE, HESC,

HERQA, and public and private universities.

The first phase of the study emphasized explicating the current perceptions, conceptions, systems, structures, processes, and practices regarding HE and QA policies, strategies, proclamations, undergraduate curricula, and teaching, learning, and assessment and their role in transforming SE and the quality of students' educational experiences and learning outcomes, using data obtained from in-depth interviews and document reviews. The results of the first-phase, qualitative study enabled the generation of codes and themes that make up the SE concepts, dimensions, typologies, and theoretical assumptions that played important roles in determining SE variables, measures, and indicators from the perspective of Ethiopian HEIs. Apart from this, it allowed for the identification of factors related to policy, strategy, curriculum, teaching, learning and assessment, students and instructors that influenced SE and the development of students' academic, social, and work-related skills and competencies in Ethiopian HEIs.

Moreover, the in-depth discussions on the generated SE themes, concepts, dimensions, typologies, and assumptions enabled the determination of an appropriate and applicable SE survey instrument, which was then used to collect quantitative data from randomly selected sample instructors and students at a sampled private university. The results from the second-phase, quantitative data analysis revealed students' and instructors' perceptions of the rates of student participation in various purposefully designed classroom, on-campus, and off-campus educational activities. In addition, the results showed the extent to which teaching, learning, and assessment processes and practices transformed SE and the quality of student learning and outcomes. The results also indicated the existing association between SE and learning achievement.

8.1 Discussion of major findings

To answer the research questions, the study's major findings are discussed below.

8.1.1 Emphasis placed on improving SE in classroom, on-campus, and off-campus educational experiences

This study has shown that the HE policies, strategies, and regulatory provisions introduced in Ethiopia since 1994 have focused on developing students' academic, social, and work-related skills and competencies. Emphasis has been placed on the design and implementation of student-centered teaching and learning processes, which are considered essential to enhancing students' active engagement in their learning, to nurturing their interpersonal growth, and to improving their employability and life skills. Moreover, creating classroom, on-campus, and off-campus enabling environments and encouraging atmospheres for students to learn is considered pivotal to improving the quality of student learning and achievement.

The results of the present study show that Ethiopia's national and institutional QA policies, strategies, and guidelines have stressed the importance of students' active engagement in HE governance, curricular development, and teaching, learning, and assessment processes and procedures. Similarly, creating a supportive platform that enhances students' involvement in in-class, on-campus, and off-campus educational experiences is viewed as contributing to the development of students' academic, social, and work-related skills and competencies (Angelle, 2018; Astin, 1984; Carini et al., 2006; Coates, 2005; Kuh, 2007; Pascarella & Terenzini, 2005).

However, the results of the study also showed that the policy intentions, strategic provisions, and regulatory and curricular frameworks have had little positive impact on the quality of HEIs' core mission: improving the quality of

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student learning and outcomes. The failure to properly implement the mandated policy, strategic, and regulatory provisions appears to have influenced HEIs' ability to transform students' educational experiences. In addition, the teaching, learning, and assessment practices limited the creation of the kind of supportive and enabling environment essential to promoting students' active engagement in on- and off-campus educational activities, thus limiting learning beyond the classroom (from peers, the community, the workplace, and the larger environment). Moreover, the results of the present study show that existing QA processes place more emphasis on the fulfillment of educational inputs than on evaluating the quality of processes, which is ultimately related to SE, students' successful achievement of learning, and students' graduate outcomes (Harvey & Green, 1993). In addition, the quality audit process emphasized examining students' academic engagement while students' emotional, social, and workplace engagement received less emphasis (Burch et al., 2015; Zhoc et al., 2018). In addition, the implementation of national and institutional QA policies, strategies, and guidelines suffers from a lack of clarity, a top-down mentality, and a failure to consider the actual contexts in which institutions operate (Harvey & Williams, 2010).

The present study's results show that different layers of factors have impacted the successful implementation of HE and QA policies, strategies, systems, structures, processes, and practices. Among other contributors, the study shows that various institutional, instructor-, and student-related factors played a significant role in influencing SE and the development of on- and off-campus educational experiences (Ali & Ahmed, 2018; Angelle, 2018; Benckendorff et al., 2009).

8.1.2 The dominant SE concepts, dimensions, typologies, and theories from Ethiopian HE perspectives

The findings of the present study indicate the relevance of applied thematic analysis to enable the generation of concepts and embedded assumptions grounded in qualitative data (Braun & Clarke, 2012; Guest et al., 2014). More importantly, they show the relevance of quantifying qualitative data to generate concepts without losing the essence or meaning attached to the original qualitative data. This was achieved using word analysis, code and document relationship analysis, and interrogating respondents' quotations using a range of set operators and query tools (ATLAS.ti 8 Windows-User Manual, 2020). Based on the respondents' reflections, numerous codes and themes were inductively generated. In so doing, SE concepts, dimensions, typologies, and theoretical assumptions that reflected the Ethiopian HE context were elucidated. This assisted in providing a comparative lens through which the findings of the first, qualitative phase of the study were integrated or aligned with the broader conceptual and theoretical models discussed in the most influential SE research. The results of this analysis was used to locate and adapt an appropriate SE survey instrument.

The synthesis of the generated codes and themes explicitly indicated three broader dimensions of SE. This included students' academic engagement (integrating both behavioral and cognitive engagement), engagement in enriching educational experiences, and community engagement. Though the results of the analysis did not clearly show the behavioral, cognitive, and emotional dimensions of engagement, as the case in most quantitatively oriented studies (e.g., Appleton et al., 2008; Kahu, 2013; Zhoc et al., 2018), the synthesis of existing HE and QA policies, strategic documents, and curricular frameworks clearly indicated four dimensions of SE: the behavioral, cognitive, affective, and community dimensions

of engagement (Lawson & Lawson, 2013). This finding corroborates the results from quantitatively oriented, large-scale studies that have reported on the multidimensional nature of SE concepts (e.g., Kahu, 2013; Leach & Zepke, 2011; NSSE, 2013). However, this study also indicated that students off-campus educational experiences were represented by their engagement in enriching educational activities (e.g., internships, industrial placements, apprenticeships, and practical attachments) and community-based learning opportunities. The present study has also shown the relevance of Pike and Kuh's (2005) SE typologies to the Ethiopian HE context. The results of the qualitative data analysis showed that the observed universities were attempting to implement various strategies to engage students in diverse educational experiences. Except for the provision of technology-intensive and individualized educational experiences, the remaining engagement typologies were observed in the sampled public and private Ethiopian universities.

However, the study also identified gaps between policy and practice. In particular, the prevalence of teacher-centered teaching and learning processes, limited collaborative learning, internships, and placement opportunities, lower participation of students in decision-making process, and the dominance of paper-and-pencil assessment practices undermine the provision of diverse educational opportunities that enhance students' behavioral, cognitive, affective, and community engagement (Kahn, 2017; MOE, 2018; MOSHE, 2020). The findings also suggest that the existence of multiple typologies of SE indicates a lack of institutional focus, inefficient use of scarce resources, and limitations in transforming students' academic, social, and work-related competencies. The findings in MOE (2018) and MOSHE (2020) that characterize Ethiopian universities as inefficient and lacking in focus and specialized areas of excellence support this claim.

Using the qualitative results, the present study has also revealed the dominant SE theories relevant to explaining the assumptions and conceptions of students' roles in teaching and learning processes and the nature of students' desired outcomes. Though the degree of influence varied, the analysis revealed that the central themes of three SE theories— behavioral, constructivist, and socio-ecological—guided and shaped the determination of educational outcomes and competencies, the nature of educational experiences, and the nature and degree of SE in classroom, on-campus, and off-campus educational settings (Kahu, 2013; Lawson & Lawson, 2013). This shows the tendency to adopt multiple theoretical constructs in dealing with HE policies, strategies, and curricular issues.

The explication of the observed conceptions, dimensions, typologies, and theoretical assumptions of SE played a crucial role in informing the subsequent phase of the study. In light of the comparisons made between the generated SE themes, variables, and measures and the NSSE themes and indicators, the study revealed a close resemblance between the SE themes, variables, and measures that were inductively produced and the established NSSE instruments (NSSE, 2020). This laid the foundation for the selection and adaptation of the NSSE and FSSE survey instruments to collect the quantitative-phase data. The pilot testing and main-study quantitative data collection and analysis phase of the study showed pertinent results associated with the psychometric properties of the adapted survey instruments and respondents' perceptions of the participation rates of students across a number of SE themes and indicators. The study has thus demonstrated the importance of using context-based SE survey instruments to make valid inferences about the level of SE and its role in transforming the quality of students' college experiences and learning outcomes (Coates, 2005; Hagel et al., 2012; Kuh, 2009; Tadesse, et al., 2018; Zepke, 2015).

8.1.3 The role of SE in transforming the quality of students' educational experiences and learning outcomes

The initial qualitative findings suggested that engaging students in classroom, on-campus, and off-campus educational experiences is essential to enhancing their academic, social, and industrial competencies and work-ready attitudes. As a result, organizing and supporting SE in practical attachments, internships, and placements is critical to improving students' employability and life skills and thus a key responsibility of both public and private HEIs (MOE, 2018, 2020). Of particular importance, the quantitative-phase results of this study showed the predictive role of SE on student achievement as measured by CGPA. This finding is important because it corroborates existing SE research that suggests a positive relationship between SE and the achievement of desired learning outcomes (Axelson & Flick, 2011; Carini et al., 2006; Hu & McCormick, 2012; Lee, 2014).

Based on the observed small magnitude of the regression analysis results, the present study acknowledges the importance of considering several factors that may influence students' achievement in the observed universities (Ali & Ahmed, 2018; Padilla-Petry & Vadeboncoeur, 2020). Though policy, strategy, regulatory, and curriculum intentions encourage HEIs to provide the necessary support structures and resources to engage students in various forms of on- and off-campus educational experiences (Federal Democratic Republic of Ethiopia, 2019; MOSHE, 2020), the study's findings revealed factors affecting the successful implementation of these intentions. Among other concerns, a lack of essential educational resources and facilities and poor coordination, monitoring, and evaluation schemes affected the quality of student experiences in CBE, industrial placements, and practical attachments.

The enthusiasm, commitment, and motivation demonstrated by students to achieve more and succeed in the world of work also affected the rate of student

participation. Numerous student-related factors affecting their engagement, educational experiences, and achievement have also been reported by SE researchers (e.g., Cents-Boonstra et al., 2020; Kahn, 2017; Martin & Bolliger 2018). Moreover, instructors' lower motivation, commitment, and limited pedagogical competence were found to undermine the development of student employability, readiness for the real world of work, and other lifelong learning skills (e.g., Martin et al., 2012). In addition, differences in disciplines showed variations in SE rates. The design and implementation of educational activities that advanced students' engagement in deep, creative, and collaborative learning experiences varied across departments (Leach, 2016). Most importantly, the present study has shown the limitations of the educational setting in providing a supportive learning environment where students can develop interpersonal relationship skills, enhance learning gains, and improve their outcomes (Cents-Boonstra et al., 2020; Hopkins, Workman & Truby, 2021).

8.2   Conclusions

Serval conclusions can be drawn from the present study's findings. It clearly indicates the emphasis placed on SE and the development of academic, social, and work-related competencies in Ethiopian HE and QA policies, strategies, and proclamations and in curricular intentions. However, factors related to institutions, leadership and governance, instructors, and students all play a role in obstructing the effective implementation of the policy and strategic priorities established to promote students' on- and off-campus educational experiences and learning achievement.

The lower rate of student participation observed in most SE themes and indicators suggests the limitations of HEIs in designing, implementing, and

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evaluating the provision of diverse classroom, on-campus, and off-campus educational experiences. This weakness undermines the development of students' academic, social, and work-related skills.

An assessment of the psychometric properties of the NSSE and FSSE instruments presents mixed results. While some of the generated SE indicators under each theme showed similar component structures or constructs as the NSSE and FSSE constructs, a few showed very different factor structures. In addition, the explicated dimensions of SE from Ethiopian HE perspectives did not consistently reflect the dimensions of engagement discussed in the global literature. These variations could be explained by differences in learning contexts, structural arrangements, resource provisions, and research designs. They also suggest the limitations of existing HE and QA policy, strategy, curricular, and teaching and learning practices in fostering the development of students' behavioral, cognitive, and affective engagement, along with the lower emphasis placed on the development of students' thinking skills, motivation, interest, and sense of belongingness.

The present study found that the recent wave of policymaking and strategic decisions is influenced and shaped by a number of theoretical and philosophical assumptions. For instance, although the specific degree of influence varied, the determination of educational outcomes, generic and subject-specific competencies, and the nature of educational experiences were shaped by the behavioral, constructivist, and socio-ecological theories. This makes the identification of relevant SE measures and indicators from Ethiopian HE perspectives a challenging endeavor. In addition, the observed HEIs were characterized by attempts to organize and offer a wide array of educational experiences for diverse student populations. This lack of clear focus created confusion, limited synergy in using scarce resources, and undermined the achievement of set organizational missions and goals. Most importantly, the lack of identity made the assessment of the

effectiveness of certain educational theories or QA frameworks difficult, thereby hindering a holistic account of SE and its role in transforming the quality of students' academic, social, and work-related competencies.

8.3 Implications for HE and QA policy, research, and practice

To improve student outcomes, HEIs needs to devise relevant structures and process that will allow them to plan, implement, manage, monitor, and evaluate SE in classroom, on-campus, and off-campus educational experiences. In addition, current internal and external QA, enhancement, and audit processes need to give priority to assessing students' levels of engagement, the quality of on- and off-campus educational experiences organized by institutions, and the achievement of learning outcomes. The policymaking environment should investigate the reasons for the continued limitations of the implementation process and for the impact of institutional and instructor- and student-related factors. Furthermore, policy and strategic discourses on HE and QA should emphasize diversifying employment opportunities for graduates. The incentive schemes for HE instructors should also be expanded to attract competent and dedicated instructors and researchers.

HE researches and scholarly discourses in Ethiopia need to emphasize measuring the rates of SE in purposefully designed educational activities and explicating the factors that either promote or impede the quality of students' learning experiences and their achievement of established academic, social, and work-related skills and competencies. Hence, the process, output, and outcome dimensions of HE quality should be given priority in future HE policy, research, and practices.

8.4　　Limitations of the study

This study has limitations that call for cautious interpretation and generalization of the results to other contexts. Though the quantitative phase of the study was planned to be carried out in randomly selected top-ranked public and private universities, the ongoing war, instability, and security concerns in Ethiopia limited the collection and analysis of the quantitative data to a top-ranked private university. Accordingly, the quantitative phase of this study was carried out with selected students and instructors in a single private university. Therefore, the perceptions of public HE students and instructors on levels of SE were not examined. In addition, given the small number of participants involved in the quantitative phase, obtaining comprehensive, credible, and generalizable evidence that depicts the psychometric properties of SE, students' perceptions of their participation rate in SE indicators, and the effect of SE on student achievement would be difficult. Hence, a different result might be obtained if future studies were carried out on a larger sample of students and instructors selected from both public and private universities in Ethiopia.

In addition, the NSSE instrument has been criticized for its lack of emphasis on the psycho-emotional aspects of engagement and a failure to consider institutional differences. Though efforts were made to adapt relevant NSSE and FSSE instruments to the Ethiopian HE context, the exclusion of psycho-emotional SE dimensions might limit the comprehensiveness of the SE data collected in the present study. Moreover, SE only explained a small portion of the variations in students' learning achievement. The contexts in which HEIs operate can play a major role in the rate of SE in diverse educational experiences. Hence, future research should investigate other potential factors, antecedents, and mediators that can significantly affect SE and the achievement of a range of educational outcomes.

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APPENDICES

Appendix 1: Student engagement survey

Dear student:

This survey questionnaire is prepared as part of **a PhD dissertation data collection tool.** It is designed to assess *your overall educational experience at your university*. Your answers to all items will play a significant role in achieving the objectives of the study.

Confidentiality

Participation in this survey is voluntary, and all information that you provide will be treated confidentially. This PhD research work has ethical clearance, supported with letters from Tampere University and Mekelle University. While the results will be made public, you are guaranteed that you, the university, and any personnel will not be identified in any report of the results of the study.

About the Questionnaire
- This questionnaire should take approximately 25–30 minutes to complete.
- Most questions can be answered by marking the **most appropriate answer** that **reflects your educational experience** with an **"X"**.
  Code No: _____

I.   Background Information

1. Gender

Male	Female

2. Age (in years) _____.

3. What is your field of study (e.g., accounting, computer science, education, psychology, law, nursing, physics)? _____

4. How many courses are you taking for credit this semester?

Numbers		1	2	3	4	5	6 or more
Course Type	Major						
	Supportive						

5. What is your overall cumulative grade point average (CGPA) so far? _____

6. What is the highest level of education you expect to complete?

BA/BSc/BEd	MA/MSc/MEd	PhD

7. What is the highest level of education completed by your parents? Mark one box per row.

Level of education	Father	Mother
No school		
Primary school		
Junior secondary school		
Secondary school		
Vocational certificate or diploma		
Undergraduate university degree		
Postgraduate university degree		
Not sure		

II.   Closed-Ended Questions

1. During the current semester, roughly how often have you done each of the following?

1 = Never   2 = Seldom   3 = Often   4 = Very often

Items	1	2	3	4
Asked questions or contributed to course discussions in other ways				
Prepared two or more drafts of a paper or assignment before turning it in				
Come to class without completing readings or assignments				
Attended an art exhibit, play, or other arts performance (dance, music, etc.)				
Asked another student to help you understand course material				
Explained course material to one or more students				
Prepared for examinations by discussing or working through course material with other students				
Worked with other students on course projects or assignments				
Given a course presentation				

2. During the current semester, roughly how often have you done each of the following?

1 = Never   2 = Seldom   3 = Often   4 = Very often

Items	1	2	3	4
Combined ideas from different courses when completing assignments				
Connected your learning to societal problems or issues				
Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments				
Examined the strengths and weaknesses of your own views on a topic or issue				
Tried to better understand someone else's views by imagining how an issue looks from their perspective				
Learned something that changed the way you understand an issue or concept				
Connected ideas from your courses to your prior experiences and knowledge				

3. During the current semester, roughly how often have you done each of the following?

1 = Never   2 = Seldom   3 = Often   4 = Very often

Items	1	2	3	4
Talked about career plans with your instructors				
Worked with your instructors on activities other than coursework (committees, student groups, etc.)				
Discussed course topics, ideas, or concepts with your instructor outside of class				
Discussed your academic performance with your instructor				

4. During the current semester, how much does coursework emphasize the following?

1 = Very little   2 = Some   3 = Quite a bit   4 = Very much

Items	1	2	3	4
Memorizing course material				
Applying facts, theories, or methods to practical problems or new situations				
Analyzing an idea, experience, or line of reasoning in depth by examining its parts				
Evaluating a point of view, decision, or information source				
Forming a new idea or understanding from various pieces of information				

5. During the current semester, to what extent have your instructors done the following?

1 = Very little   2 = Some   3 = Quite a bit   4 = Very much

Items	1	2	3	4
Clearly explained course goals or requirements				
Taught course sessions in an organized way				
Used examples or illustrations to explain difficult points				
Provided feedback on a draft or work in progress				
Provided prompt and detailed feedback on tests or completed assignments				

6. During the current semester, roughly how often have you done each of the following?

1 = Never   2 = Seldom   3 = Often   4 = Very often

Items	1	2	3	4
Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)				
Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)				
Evaluated what others have concluded from numerical information				

7. About how many writing tasks (e.g., papers, reports, or other) have you been assigned by your major course instructors in this semester? Include those not yet completed.

Items	0	1	2	3	4	5	6	7	8	9	10	11 or more
Up to 5 pages												
From 6–10 pages												
11 pages or more												

8. During the current semester, roughly how often have you had any sort of discussions with people from the following groups?

1 = Never   2 = Seldom   3 = Often   4 = Very often

Items	1	2	3	4
People of ethnicity other than your own				
People from an economic background other than your own				
People with religious beliefs other than your own				
People with political views other than your own				

9. During the current semester, roughly how often have you done the following?

1 = Never   2 = Seldom   3 = Often   4 = Very often

Items	1	2	3	4
Identified key information from reading assignments				
Reviewed your notes after class				
Summarized what you learned in class or from course materials				

10. To what extent do the courses you have taken in semester I of this academic year challenged you to do your best work?

Not at all	Very little	Some	Quite a bit	Very much

11. Which of the following have you done or do you plan to do before you graduate?

1 = Done or in progress   2 = Plan to do   3 = Do not plan to do   4 = Have not decided

Items	1	2	3	4
Participate in an internship, field visit, practicum, clinical, or work placement				
Hold a formal leadership role in a student organization or group				
Participate in a learning community (study groups, student network, etc.)				

Complete a culminating senior experience (senior project or senior essay, comprehensive exam, portfolio, etc.)					

12. About how many of your courses at this university have included a community-based project (service learning)?

None	Some	Most	All

13. Indicate the quality of your interactions with the following people at your university.

1 = Poor   2 = Fair   3 = Good   4 = Very Good   5 = Excellent

Items	1	2	3	4	5
Other students					
Academic advisors					
Instructors					
Student services staff (career services, proctors, café, etc.)					
Other administrative staff and offices (registrar, finance, etc.)					

14. How much does your institution emphasize the following?

15. *1 = Very little   2 = Some   3 = Quite a bit   4 = Very much*

Items	1	2	3	4
Spending significant amounts of time studying or on academic work				
Providing support to help students succeed academically				
Using learning support services (tutoring services, writing center, etc.)				
Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)				
Providing opportunities to be involved socially				
Providing support for your overall well-being (recreation, health care, counseling, etc.)				
Helping you manage your non-academic responsibilities (e.g., work, family)				
Attending campus activities and events (performing arts, athletic events, etc.)				
Attending events that address important social, economic, or political issues				

16. To what extent do you agree or disagree with the following statements?

1 = Strongly Disagree   2 = Disagree   3 = Agree   4 = Strongly Agree

Items	1	2	3	4
I feel comfortable being myself at this institution				
I feel valued by this institution				
I feel like part of the community at this institution				

17. In an average seven-day week, roughly how many hours do you spend doing each of the following?

1 = None	2 = 1–5	3 = 6–10	4 = 11–15
5 = 16–20	6 = 21–25	7 = 26–30	8 = Over 30

Items	1	2	3	4	5	6	7	8
Preparing for class (e.g., studying, reading, writing, lab work, moot court, drawing, analyzing data, rehearsing, other academic activities)								
Participating in co-curricular activities (campus clubs, student government, intercollegiate or intramural sports, etc.)								
Working for pay **on campus**								
Working for pay **off campus**								
Doing community service or volunteer work								
Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)								
Providing care for dependents (children, parents, etc.)								
Commuting to campus (driving, walking, etc.)								

18. Of the time you spend preparing for class, about how much is on assigned reading?

Very little	Some	About half	Most	Almost all

19. How much has your experience at this university contributed to your knowledge, skills, and personal development in the following areas?

1 = Very little   2 = Some   3 = Quite a bit   4 = Very much

Items	1	2	3	4
Writing clearly and effectively				
Speaking clearly and effectively				
Thinking critically and analytically				
Analyzing numerical and statistical information				
Acquiring job- or work-related knowledge and skills				
Working effectively with others				
Developing or clarifying a personal code of values and ethics				
Understanding people of other backgrounds (economic, ethnic, political, religious, nationality, etc.)				
Solving complex real-world problems				
Being an informed and active citizen				

20. How would you evaluate your overall educational experience at this university?

Poor	Fair	Good	Excellent

21. If you could start over again, would you go to the same university you are now attending?

Definitely no	Probably no	Probably yes	Definitely yes

Appendix 2: Faculty student engagement survey

Dear Instructor:

This survey questionnaire is prepared as part of **a PhD dissertation data collection tool.** It is designed to assess your ***students' overall educational experience*** at your university. Your answers to all items will play a significant role in achieving the objectives of the study.

Confidentiality

Participation in this survey is voluntary, and all information that you provide will be treated confidentially. This PhD research work has ethical clearance, supported with letters from Tampere University and Mekelle University. While the results will be made public, you are guaranteed that you, this university, and any personnel will not be identified in any report of the results of the study.

About the Questionnaire

- This questionnaire should take approximately 25-30 minutes to complete.
- Most questions can be answered by marking the **most appropriate answer** that **reflects your students' educational experience** with an **"X"**.
  Code No: _____

I. Background Information

1. Gender

Male	Female

2. Age (in years) _____.

3. What is the highest degree you have earned?

BA/BSc/BEd	MA/MSc/MEd	PhD/EdD	Other

4. Which of the following categories best represents your academic rank?

Professor	Assoc. Professor	Asst. Professor	Lecturer	Asst. Lecturer	GA I	GA II

5. How many years of college and university teaching experience do you have? _____years.

Yes	No

6. Do you currently hold any administrative position in your university?

7. Which of the following category best represents your main work function at your university?

Teaching only	Mainly teaching, some research	Mainly research, some teaching	Research only

8. In what type of teacher training have you been involved, if any (you can select more than one)?

No Teacher Training	Bed	PGDT	Higher Diploma Program	Induction for Beginning Teachers	Informal advice or support	Other

9. What is your main area of teaching (e.g., accounting, civil engineering, computer science, education, psychology, law, nursing, physics)?
   _____.

10. Prior to the current academic year, about how many times have you taught the course you are currently assigned to teach?

0	1–2	3–4	5–9	10 or more times

11. Enter the total number of undergraduate courses you are scheduled to teach during the current semester.

1	2	3	4	5	6 or more courses

12. Estimate the total number of undergraduate students you are teaching during the current semester.

1-50	51-100	101-150	151-200	201-300	More than 300

II.   Closed-Ended Questions

1. In what format do you teach your selected course section?

Items	X
Classroom instruction on-campus	
Classroom instruction at an auxiliary location (satellite campus, rented facility, etc.)	
Distance education (online, live or pre-recorded video or audio, correspondence, etc.)	
Combination of classroom instruction and distance education	

2. In an average seven-day week, roughly how many hours do you **expect** the typical student to spend preparing for your selected course section (studying, reading, writing, drawing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)?

0	1	2	3	4	5	6	7	8	9	10	More than 10 hours

3. In an average seven-day week, roughly how many hours do you *think* the typical student **actually spends** preparing for your selected course section (studying, reading, writing, doing homework or lab work, drawing, analyzing data, rehearsing, and other academic activities)?

0	1	2	3	4	5	6	7	8	9	10	More than 10 hours

4. In an average 7-day week, of the time students spend preparing for your selected course section, roughly how many hours do you expect students to spend on **assigned reading**?

0	1	2	3	4	5	6	7	8	9	10	More than 10 hours

5. If you answered greater than **[0]**, about how much of the assigned reading in your selected course section do you think the typical student **completes**?

None	Some	Most	All

6. In an average seven-day week, roughly how many hours do you think the typical student in your selected course section spends doing each of the following?

| 1 = None | 2 = 1–5 | 3 = 6–10 | 4 = 11–15 |
| 5 = 16–20 | 6 = 21–25 | 7 = 26–30 | 8 = Over 30 |

Items	1	2	3	4	5	6	7	8

Participating in co-curricular activities (campus clubs, student government, intercollegiate or intramural sports, etc.)								
Working for pay **on campus**								
Working for pay **off campus**								
Doing community service or volunteer work								
Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)								
Providing care for dependents (children, parents, etc.)								
Commuting to campus (driving, walking, etc.)								

7. In a typical seven-day week, roughly how many hours do you spend on each of the following teaching-related activities?

1 = 0	*2 = 1–4*	*3 = 5–8*	*4 = 9–12*
5 = 13–16	*6 = 17 to 20*	*7 = More than 20 hours*	

Items	1	2	3	4	5	6	7
Preparing class sessions							
Teaching class sessions							
Grading assignments and examinations							
Meeting with students outside of class							
Course administration (emailing students, maintaining course website, etc.)							
Working to improve your teaching (self-reflection, meeting with teaching consultants, attending teaching workshops, conducting research on your own courses, etc.)							
Advising students							
Research, creative, or scholarly activities							
Service activities (e.g., committee work, administrative duties, etc.)							

8. In the current academic year, have you participated in the following activities?

Items	Yes	No
Teaching undergraduates in a learning community where groups of students take two or more classes		
Supervising or mentoring students in a learning community where groups of students take two or more classes		
Supervising undergraduate internships or other field experiences		
Supervising or mentoring undergraduates completing a culminating senior experience (senior project or senior essay, comprehensive exam, portfolio, etc.)		

9. In your undergraduate courses, to what extent do you do the following?

Items	1	2	3	4
Clearly explain course goals and requirements				
Teach course sessions in an organized way				
Use examples or illustrations to explain difficult points				
Provide feedback to students on drafts or works in progress				
Provide prompt and detailed feedback on tests or completed assignments				
Use a variety of teaching techniques to accommodate diversity in student learning styles				
Review or summarize material for students				
Provide standards for satisfactory completion of assignments (rubrics, detailed outlines, etc.)				

10. How important is it to you that students at your university do the following before they graduate?

1 = Not important   2 = somewhat important   3 = Important   4 = Very important

Items	1	2	3	4
Participate in an internship, field visit, practicum, clinical or work placement				
Hold a formal leadership role in a student organization or group				
Participate in a learning community (study groups, student network, etc.)				
Complete a culminating senior experience (senior project or senior essay, comprehensive exam, portfolio, etc.)				
Participate in a community-based project (service learning) as part of a course				

11. Indicate your perception of the quality of student interactions with the following people at your university.

1 = Poor   2 = Fair   3 = Good   4 = Very Good   5 = Excellent

Items	1	2	3	4	5	6	7
Other students							
Academic advisors							
Instructors							
Student services staff (career services, proctors, café, etc.)							
Other administrative staff and offices (registrar, finance, etc.)							

12. How important is it to you that your university increases its emphasis on each of the following?

1 = Not important   2 = somewhat important   3 = Important   4 = Very important

Items	1	2	3	4
Students spending significant amounts of time studying or on academic work				
Providing support to help students succeed academically				
Students using learning support services (tutoring services, writing center, etc.)				
Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)				
Providing opportunities for students to be involved socially				

Providing support for students' overall well-being (e.g., recreation, health care, counseling)				
Helping students manage their non-academic responsibilities (work, family, etc.)				
Students attending campus activities and events (performing arts, athletic events, etc.)				
Students attending events that address important social, economic, or political issues				

13. To what extent do you agree or disagree with the following statements?

1 = Strongly Disagree   2 = Disagree   3 = Agree   4 = Strongly Agree

Items	1	2	3	4
I feel comfortable being myself at this institution				
I feel valued by this institution				
I feel like part of the community at this institution				

14. During the current academic year, roughly how often have you done each of the following with the undergraduate students you teach or advise?

1 = Never   2 = Seldom   3 = Often   4= Very often

Items	1	2	3	4
Talked about their career plans				
Worked on activities other than coursework (committees, student groups, etc.)				
Discussed course topics, ideas, or concepts outside of class				
Discussed their academic performance				

15. To what extent to do you agree or disagree with the following statements?

1 = Strongly Disagree   2 = Disagree   3 = Agree   4 = Strongly Agree

Items	1	2	3	4
I have the time I need to prepare for class				
I have the resources I need to do my best teaching (office space, technology, materials, etc.)				
The environments (classroom, online, etc.) I teach in are conducive to quality teaching				
I know where to go for help with teaching at my institution				

16. Roughly how many of your undergraduate courses at this university have included a community-based project (service learning)?

None	Some	Most	All

17. In your selected course section, to what extent do you think the typical student does their best work?

Very little	Some	Quite a bit	Very much

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18. In your selected course section, how important is it to you that the typical student do the following?

1 = Not important   2 = Somewhat important   3 = Important   4 = Very important

Items	1	2	3	4
Ask questions or contribute to course discussions in other ways				
Come to class having completed readings or assignments				
Reach conclusions based on their own analysis of numerical information (numbers, graphs, statistics, etc.)				
Use numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)				
Evaluate what others have concluded from numerical information				

19. In your selected course section, how important is it to you that the typical student do the following?

1 = Not important   2 = Somewhat important   3 = Important   4 = Very important

Items	1	2	3	4
Combine ideas from different courses when completing assignments				
Connect their learning to societal problems or issues				
Include diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments				
Examine the strengths and weaknesses of their own views on a topic or issue				
Try to better understand someone else's views by imagining how an issue looks from their perspective				
Learn something that changes the way they understand an issue or concept				
Connect ideas from your course to their prior experiences and knowledge				

20. For the course you are currently assigned to teach, what amount of time is assigned to the following teaching and learning strategies?

Items	Hours Assigned
Lecturing	
Discussion	
Small-group activities	
Student presentations or performances	
Independent student work (writing, painting, designing, etc.)	
Movies, videos, music, or other performances not involving or produced by students	
Assessing student learning (tests, evaluations, surveys, polls, etc.)	
Experiential activities (labs, clinical or field work)	

21. In your selected course section, how much do you encourage students to do the following?

1 = Very little   2 = Some   3 = Quite a bit   4 = Very much

Items	1	2	3	4

Ask other students for help understanding course material				
Explain course material to other students				
Prepare for examinations by discussing or working through course material with other students				
Work with other students on course projects or assignments				
Identify key information from reading assignments				
Review notes after class				
Summarize what has been learned from class or from course materials				

22. In your selected course section, how much opportunity do students have to engage in discussions with people from the following groups?

1 = Not at all   2 = Very little   3 = Some   4 = Quite a bit   5 = Very much

Items	1	2	3	4
People of ethnicity other than their own				
People from an economic background other than their own				
People with religious beliefs other than their own				
People with political views other than their own				
People with a gender other than their own				

23. In your selected course section, how much does the coursework emphasize the following?

1 = Very little   2 = Some   3 = Quite a bit   4 = Very much

Items	1	2	3	4
Memorizing course material				
Applying facts, theories, or methods to practical problems or new situations				
Analyzing an idea, experience, or line of reasoning in depth by examining its parts				
Evaluating a point of view, decision, or information source				
Forming a new idea or understanding from various pieces of information				

24. Does your selected course section include assigned papers, reports, or other writing tasks?

Yes	No

25. If your answer to Q24 was "Yes", roughly how many papers, reports, or other writing tasks of the following lengths do you assign?

Items	0	1	2	3	4	5	6	7	8	9	10	11 or more
Up to 5 pages												
From 6–10 pages												
11 pages or more												

26. To what extent do you structure your selected course section so that students learn and develop in the following areas?

1 = Very little   2 = Some   3 = Quite a bit   4 = Very much

Items	1	2	3	4
Writing clearly and effectively				
Speaking clearly and effectively				
Thinking critically and analytically				
Analyzing numerical and statistical information				
Acquiring job- or work-related knowledge and skills				
Working effectively with others				
Developing or clarifying a personal code of values and ethics				
Understanding people of other backgrounds (economic, ethnic, political, religious, nationality, etc.)				
Solving complex real-world problems				
Being an informed and active citizen				

Appendix 3: Summary of pilot test result for NSSE and FSSE questionnaires

Prologue

Conducting pilot testing or trying out of a newly developed or adapted data collection instrument is regarded as one of an essential component of a good research design (Teijlingen van & Hundley, 2001). Researchers opt to undertake pilot testing on the instrument they are planning to use for many reasons. For instance, Lancaster, Dodd and Williamson (2004) stated that pilot testing a questionnaire helps in improving the appropriateness and comprehensibility of the instrument. In addition, it enables to examine whether or not the questions are well defined, clearly understood and presented in a consistent manner. Similarly, Malmqvist, Hellberg, Mollas, Rose and Shevlin (2019) highlighted the importance of pilot testing in contextualizing the questionnaire to a setting that is different from the one it was used originally. This helps in improving the trustworthiness and usefulness of the instrument planned to be used (Teijlingen van & Hundley, 2001). This does not mean that pilot testing goes without limitations. In fact, numerous quantitative researchers discussed some limitations pilot testing may pose in research. For starters, compared to the main study, pilot testing often involves fewer samples or study participants. The information obtained from such small number of samples may lead to inaccurate predictions. Secondly, there are occasions where the researcher uses the data obtained from pilot study or includes subjects who participated in pilot testing for the main study. This scenario leads to what is called "data contamination" due to differences in the way participants respond to the questions (Teijlingen van & Hundley, 2001). Even if such limitations exist, it is argued that conducting pilot testing increases the success rate of the principal study (Teijlingen van & Hundley, 2001). Cherishing its significance, this study pilot tested the located and/or determined survey questionnaire.

For the quantitative phase of the study, two sets of questionnaires i.e., Survey of Student Engagement (SSE) and Faculty Survey of Student Engagement (FSSE) were considered to be the most appropriate data collection instrument to test the student engagement concepts, dimensions, typologies and theories generated through the qualitative enquiry. These questionnaires were adapted from the 2020 US Survey of Student Engagement (NSSE) and the 2020 Faculty Student Engagement Survey (FSSE). Quantitative researchers reiterated the importance of exploring the validity and reliability of a survey instrument. Similarly, student engagement researchers (e,g., Kuh, 2009) stated the importance of measuring the validity and reliability of both NSSE and FSSE instruments. Accordingly, examining the consistency and validity (face validity, content validity and construct validity) of a survey tool is considered one of the major components of any pilot testing process. In addition, assessing the comprehensibility, appropriateness, relevance, trustworthiness and usefulness of an adapted NSSE and FSSE survey instruments is essential in enhancing the psychometric property of the instruments planned to be used. In carrying out the pilot testing, the seven steps recommended by Peat, Mellis, Williams and

Xuan (2002) were followed with some modifications. The result of the pilot testing is reported as follows.

Enhancing the internal validity of the instruments

The following steps were followed to enhance the internal validity of the NSSE and FSSE instruments.

Step 1: Selecting pilot testing site comparable with the sites selected for full-scale study

Mekelle University (MU) was selected as a site for pilot testing. Mekelle University, one of the first-generation public universities in Ethiopia, resembles the main study site i.e, Admas university with regard to governance, organizational structure, program curriculum, the nature of disciplines taught, nature of instructors and students. Apart from the similarities discussed, the selection of MU where the researcher is a lecturer, enabled the researcher to get access to some key faculty and student respondents to discuss on their experiences and problems encountered in filling the questionnaires. This helped in obtaining in depth feedback on both questionnaires.

Step 2: Selecting samples for pilot testing comparable with full-scale study samples

The samples for the full-scale study was planned to be taken from randomly selected departments teaching different UG programs. Mekelle University hosts 20 departments that run over 90 UG and 70 PG programs. Twenty UG programs were randomly selected to draw samples for the pilot testing. From each department, 3 third year and/or graduating class students' and 3 instructors were randomly selected to fill in the questionnaires. Overall, 60 instructors and 60 students participated in the pilot testing. The recommended sample size for pilot testing is between 30-50 (e.g., Fick, 2003; Teare, Dimairo, Shephard, Hayman, Whitehead & Walters, 2014; Machin, Campbell, Tan & Tan, 2018.). Therefore, an appropriate number of samples were selected for the pilot testing process.

Step 3: Administering the questionnaires

One hundred and twenty questionnaires were administered for 60 instructors and 60 students. Both the survey questionnaires were administered in print and filled in by the samples in a manner that is associated with the planned full-scale study. Considering the response rate, 33 (55%) of instructors and 53 (88.3%) of students returned the filled in questionnaire. Though the non-response rate was higher for instructors, valid inferences can be made from both sources of data.

Step 4: Recording the time taken to complete the questionnaires

Two mechanisms were employed to record the time taken to complete the questionnaires. First, participants were asked to write the time it took them to complete the questionnaires. Second, the researcher recorded the starting and completion time to see how long it took respondents to complete the questionnaire. The observation made entailed, the amount of time allotted i.e., 15-20 minutes was found to be not sufficient to complete the questionnaires. Based on the feedback received, improvement was made to make the time allotted reasonable i.e., 25-30 minutes.

Step 5: Collecting feedback on the questionnaires

In addition to filling in the questionnaires, participants were asked to provide feedback on the questionnaires. In particular, the faculty were asked to examine the clarity, appropriateness, comprehensiveness and relevance of the questionnaires with reference to the nature of the disciplines and the teaching and learning context. It can be said that a good deal of comments and suggestions were obtained from participants involved in pilot testing.

Step 6: Discarding all unnecessary, difficult or ambiguous questions

Based on the comments and suggestions obtained from experts, students and responses obtained from pilot testing, a number of questions, which were considered to lack relevance and appropriateness to Ethiopian university contexts (cultural, structural, curricular, resource related), were either totally omitted or revised to make them relevant to the existing context. In addition, some words, phrases and scales were modified to ensure clarity and enhance response rate.

Step 7: Assessing whether each question gives an adequate range of responses

Based on the pilot testing result, some questions and their alternatives were found not to provide an adequate range of responses. These questions required the inclusion of additional alternatives or customized response alternatives. Accordingly, modifications were made on these questions and scales of measurements.

Step 8: Checking that all questions are answered

To assess whether or not all questions (variables) were answered, missing value analysis (MVA) was conducted on the pilot test data set. Tabachnik and Fidell (2013) suggested that a variable with >5% missing data indicates the existence of missingness at nonrandom (MNAR). Based on their suggestion, the response rate for both questionnaires were examined. Accordingly, out of 98 items in the SSE questionnaire, 21 items had a missing value of greater than 5%. On the other hand, out of 130 items in the FSSE questionnaire, 41 items had a missing value of greater than 5%. This being the case,

however, the pattern analysis did not indicate missingness in one case is related with missingness in others. Therefore, missingness observed in these data sets seems to result from lack of information, lack of clarity and mismatch with existing practice (contextual differences). When the items in both questionnaires are brought together to form a scale, from the FSES, out of 21 variables only two variables or scales had missing values greater than 5%. In the SSE, however, there was no variable with a missing value of greater than 5%. Therefore, the amount of response obtained from the two data sets would enable further analysis.

Step 9: Re-wording or re-scaling any questions that are not answered as expected

Both before and after the pilot testing, a number of questions, phrases, words and alternatives along with their scales were modified to make the questionnaires clear, relevant and appropriate. The final version of the questionnaires were devised in such a way that it enhances clarity and response rate.

Enhancing the validity and reliability of the instruments

Along with the pilot testing, measures were taken to examine the validity and reliability of the NSSE and FSSE questionnaires. This part discusses the measures taken to improve the validity and reliability of the questionnaires supplementing it with evidences obtained elsewhere.

Evidences on the validity of the instruments

Traditionally, the notion of validity in research revolved around "ensuring that the instrument measures what it intends to measure". Recent discourses, however, stressed on collecting evidences that supports the interpretations and uses of the scores obtained from an instrument (Creswell, 2012, p. 159; Im, Shin, & Cheng, 2019). This calls for searching sound evidences on various aspect of the instrument in use. Hence, validity is concerned with finding evidences that indicates the interpretation of scores from the instrument relates with the proposed use of the instrument (Creswell, 2012, p. 159; Im, Shin, & Cheng, 2019, the American Psychological Association, the American Educational Research Association and National Council on Measurement in Education, 2014). From this definition, it appears that the notion of validity is not about making the instrument valid, rather the interpretation made from the scores obtained from the instrument.

How do we know whether the instrument designed is measuring what we wanted to measure? Authors in the field have discussed different types of validity. For instance, Im, Shin and Cheng (2019) in their critical review of validation models discussed the traditional content, criterion and construct validity as well as the modern evidence gathering, socio-cognitive, test usefulness and an argument-based models of validation (p. 1). On the other hand, opting for the evidence-based model, Creswell (2012), APA, AERA and NCME (2014) discussed five forms of evidences that are essential to consider in the effort made to ensure the validity of instruments used in research. This included evidences on the

instrument content, response processes, internal structure, relations to other variables and the consequences of the instrument. As Creswell (2012) maintained, these evidences can be searched through examining prior studies that have reported scores and use of the instrument along with the intended purpose for which the instrument was utilized in these studies (pp. 162-164). Since, its inception, the validity and reliability of the SSE and FSSE instruments had been examined and reported by various researchers and Center for Postsecondary Research, Indiana University. The evidences collected generally suggested that the psychometric properties (validity and reliability) of the instrument is very good (Kuh, 2003, 2009). Specifically, the evidences on the *construct and face validity* of the NSSE and FSSE showed that the interpretations of the scores are consistent with the conceptual frameworks the instruments were designed to measure (e.g., Kuh, 2003; Miller, Sarraf, Dumford, & Rocconi, 2016; Paulsen & BrckaLorenz, 2018). Besides, evidences on *known group validity* suggested that the NSSE and FSSE items are not threatened by the validity threat of measurement invariance. Which lead the authors to the conclusion that the observed differences between groups did not result from measurement errors (Paulsen & BrckaLorenz, 2018; NSSE, 2010, 2013, 2018). The evidence on *response process validity* of the FSSE indicated that the faculty responded as intended by instrument designers indicating respondents understood the questions (Yuhas & BrckaLorenz, 2018). The accuracy of student provided major data showed disparities, suggesting a more accurate response for senior students than for first year students (NSSE, 2016). The evidence on FSSE *relation to other variable* revealed that key FSSE scales assessing learning engagement are correlated at an expected level with scales from the literature (Paulsen & BrckaLorenz, 2018). Moreover, evidences on the *predictive validity* of NSSE suggested that a meaningful, positive relationship exists between various NSSE measures (engagement indicators and high impact practices) and first-year student retention (Sarraf, 2018). Apart from this, evidence on the *social desirability bias* of the instruments indicated no significant relationship with the social desirability for most themes and subscales (NSSE, 2012). Particularly, the evidence suggested that there were no significant relationship between scores on items such as self-report student grade and institutional evaluations and social desirability scales. However, significant positive relationships were found for first year students on social desirability and level of academic challenge and reflective learning. For senior students the significant positive relationship were observed between social desirability and supportive environment, reflective learning, gains in personal and social development and gains in general education (pp. 1-3). Based on the forgoing discussions, evidence was searched for content, response process, internal structure and consequence validity of the FSSE and SSE questionnaires. The detail discussions on the procedures followed is stated as follows.

Evidences based on content

Content validity refers to the degree to which the scores from the instrument indicates the content of the instrument measures what it purports to measure (Creswell, 2012; APA, AERA & NCME, 2014; Im, Shin, & Cheng, 2019). To examine the content validity of the FSSE and SSE questionnaires, experts from the field of educational sciences, psychology, statistics and management were asked to comment on the theme, format, wording and the
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construct the questionnaires intended to measure. Based on the comments and suggestions provided from these experts, the survey questionnaire have undergone a number of improvements than it was designed originally. The improvements made included formatting, wording and entirely modifying the nature of the questions or the alternatives or measurement scales set. In addition, the improvements made on the questionnaire revolved around making the questions more relevant to the Ethiopian higher education context.

Evidence based on internal structure

This form of validity looks for evidences related to the existing relationship among instrument items or dimensions or scales with the conceptual framework they are supposed to measure. Hence, internal structure validity examines the degree to which interpretation of the scores are consistent with the conceptual framework or the construct the instrument is designed to measure (Creswell, 2012; APA, AERA & NCME, 2014; Im, Shin, & Cheng, 2019). This is achieved through conducting factor analysis, a form of statistical analysis designed to examine the existing relationships between the scores on instrument dimensions with the theory or construct they tended to measure (Field, 2009; Creswell, 2012). Because small number of participants were involved in the pilot study (53 students and 33 instructors), conducting factor analysis violates one of the assumptions i.e., the minimum number of samples required. Regarding this, Field (2009), Pallant (2016), Tabachnik, and Fidell (2013) stated that the reliability of factor analysis is dependent on sample size. The smaller the sample size the higher the fluctuation of the correlation coefficients. For better factor analysis and reliable correlation coefficients, Pallant (2016) suggested a minimum sample of 150, Field (2009) and Tabachnik and Fidell (2013) suggested 300 samples. Therefore, factor analysis on the pilot test data sets were left out for later considerations after the full-scale study data are collected from ample samples. This being the case, however, previous studies (e.g., Kuh, 2009; BrckaLorenz, Chiang & Nelson Laird, 2013; Miller, Sarraf, Dumford, & Rocconi, 2016) reported the internal structure of NSSE and FSSE items. The authors stated that the evidences from factor analyses (both exploratory and confirmatory analysis) provided evidence of construct validity for 10 engagement indicators. This evidence supported the claim that these engagement indicators measures what they were supposed to measure (Miller, Sarraf, Dumford, & Rocconi, 2016; BrckaLorenz, Chiang & Nelson Laird, 2013). Table 4.4 presents a summary of the dimensions or scales for the SSE and FSSE questionnaires.

From 2000-2012, student engagement was measured through measuring 4 benchmarks and ten indicators which represent a range of educational, psychological, social and institutional variables. These indicators were designed to measure various constructs or theories emanated from a long-standing research on effective educational practices. However, later developments witnessed the inclusion of new themes and indicators which lead to the modification of the existing benchmarks. After the 2013 revision, the former benchmarks were changed to themes with slight modification on naming the themes. Apart from these changes, a number of improvements was made on the scales and component items of both the SSE and FSES instruments. Accordingly, new dimensions such emotional engagement, time spent by students on reading and writing tasks and

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institutional contributions were added to measure the proximal and distal consequence of student engagement comprehensively. In addition, some items were added on the FSSE intending to measure faculty's teaching styles and teaching practices.

Evidence based on consequences

A study that involves the assessment of educational effectiveness and improvement requires the evaluation of the intended and unintended consequence of the instrument used (Lane, 2014; Creswell, 2012). The intended and unintended consequences of the NSSE and FSSE questionnaires were examined during the full-scale data is collection and analysis process. The evidences collected indicated both the NSSE and FSSE instruments did not pose any consequences on participating students, instructors and institutions.

Evidence on the Reliability of the instruments

Reliability refers to the extent scores from an instrument are stable and consistent (Creswell, 2012, p.16). Kuh (2003) defined reliability as the "degree to which a set of items consistently measures the same thing across respondents and institutional settings (p.5)". Therefore, an instrument is said to be reliable when it produces a relatively similar response when administered at different times and when the individual respondent responds all question in a relatively consistent manner. Five forms of reliability have been discussed by range of scholars. Cresswell (2012, pp. 160-162) discussed test retest, alternate forms, alternate forms and test retest, interrater and internal consistency forms of reliability. Their difference lies in the number of times the instrument is administered, number of instrument versions administered and the number of individuals who provide the information. Considering the FSSE and NSSE instruments a wide array of reports are available regarding the stability and the consistency of scores. For instance, NSSE (2018) reported the internal consistency of the scales for senior and first year student's responses to be above Cronbach's Alpha .7. On the other hand, Kuh (2003) reported a reliability coefficient more than .8 for all the benchmarks and indicators. For the pilot study, the reliability of the FSSE and NSSE questionnaires was analyzed. Accordingly, the reliability coefficient for the NSSE (87 items excluding background related items) was found to be $\alpha=.93$ and for the FSSE (113 items excluding background related items) was found to be $\alpha=.96$. This seems to suggest that the reliability of the scores from the instruments are consistent.

Appendix 4: Guiding interview protocol (HE and QA policy experts)

Dear Participant:

This interview is aimed at assessing *national HE and QA policy and strategic priorities* set to promote the *development of students' overall college experience, their academic and non-academic engagement, and the development of graduate outcomes at private and public universities*. Your insightful answers to the following guiding questions would play a significant role in achieving the purpose of the study.

Confidentiality

Participation in this interview is voluntary, and all information that you provide will be treated confidentially. This research work has ethical clearance, supported with letters from Tampere University and Mekelle University. While the results will be made public, you are guaranteed that you, this organization, and any personnel will not be identified in any report of the results of the study.

About the Interview
- This interview should take approximately 30–45 minutes to complete.
- Some questions require detailed descriptive answers, while others do not.

I. Background Information

Participant's gender _____
Qualification or highest degree earned _____
Current position _____
Years of work experience in current position _____
Previous leadership or teaching experience in years _____
Main duties, responsibilities, and work function in current position _____

II. Main interview questions

1. How did the current national education policy and strategic provisions frame the role of students in developing their academic, social, and work-related competencies?

2. To what extent does the current national education policy and strategy encourage public and private universities to emphasize the development of students' academic, social, and work-related experiences and competencies.

3. Do you think the current national education policy intentions and strategic provisions

emphasize the improvement of graduate outcomes? If yes, how? If no, why not?

4. Is there any follow-up mechanism established to assess the extent to which these policy and strategic intentions are implemented? If yes, what are they? If no, why not?

5. To what extent do existing educational policies and strategic provisions emphasize:

⇒ The development of engaging and experience centered academic curriculum?

⇒ The design and implementation of a challenging and stimulating teaching and learning environment?

⇒ The active construction of knowledge and experience?

⇒ The achievement of higher-order learning outcomes?

⇒ Creating opportunities for students to engage in enriching educational experiences (e.g., service learning, internships, field experience, and learning communities)?

⇒ The promotion of quality student interaction with faculty and peers (collaborative learning, research, and supervision)?

⇒ The integration of employment or work-focused experiences?

⇒ The integration of community-based learning opportunities?

⇒ The design and implementation of quality assessment and feedback provision systems?

⇒ Valuing students' voice and feedback in the decision-making processes of the university?

⇒ Enabling available learning resources (ICT, libraries, and laboratories) to support the engagement of students in their learning?

6. What policy- and strategy-related factors are influencing the development of students' academic, social, and work-related competencies and graduate outcomes at public and private universities?

7. What should be done to improve students' experiences and graduate outcomes and the quality of education at public and private universities?

Appendix 5: Guiding interview protocol (university TQADs, CQA heads, and department heads)

Dear Participant:

This interview is aimed at assessing **institutional QA policy, strategic, and guideline priorities** established to promote the **development of students' overall college experience, their academic and non-academic engagement, and the development of graduate outcomes at private and public universities**. Your insightful answer to the following guiding questions would play a significant role in achieving the purpose of the study.

Confidentiality

Participation in this interview is voluntary, and all information that you provide will be treated confidentially. This research work has ethical clearance, supported with letters from Tampere University and Mekelle University. While the results will be made public, you are guaranteed that you, this organization, and any personnel will not be identified in any report of the results of the study.

About the Interview

- This interview should take approximately 30-45 minutes to complete.
- Some questions require detailed descriptive answers while others not.

I.   Background Information

Participant's gender _____
Qualification or highest degree earned _____
Current position _____
Years of work experience in current position _____
Previous leadership or teaching experience in years _____
Main duties, responsibilities and work function in current position _____

II.   Main interview questions

1. How does the current institutional and CQA policy and guidelines frame the role of students in developing their academic, social, and work-related experiences and competencies?

2. To what extent do the current institutional and CQA policy and guidelines encourage departments to emphasize the development of students' academic, social, and work-

related experiences and competencies?

3. To what extent do your college's goals and objectives emphasize the development of students' academic, social, and work-related experiences?

4. Do you think the existing institutional and CQA policy intentions and guidelines give emphasis to the development of graduate outcomes? If yes how? If no, why not?

5. What structural arrangements are in place at the college and department level to facilitate SE in their classroom, colleges, university, and society at large?

6. Is there any follow-up mechanism established to assess the extent to which these policy and strategic intentions are implemented? If yes, what are they? If no, why not?

7. To what extent do existing institutional and CQA policies and guidelines emphasize:

   ⇒ The development of engaging and experience-centered academic curricula?
   ⇒ The design and implementation of a challenging and stimulating teaching and learning environment?
   ⇒ The active construction of knowledge and experience?
   ⇒ The achievement of higher-order learning outcomes?
   ⇒ Creating opportunities for students to engage in enriching educational experiences (e.g., service learning, internship, field experience, and learning communities)?
   ⇒ The promotion of quality student interaction with faculty and peers (collaborative learning, research, and supervision)?
   ⇒ The integration of employment or work-focused experiences?
   ⇒ The integration of community-based learning opportunities?
   ⇒ The design and implementation of quality assessment and feedback provision systems?
   ⇒ Valuing student voices and feedback in the decision-making process of the college?
   ⇒ Enabling available learning resources (ICT, libraries, and laboratories) to support students' engagement in their learning?

8. What policy-, structure-, and process-related factors influence the development of students' academic, social, and work-related competencies and outcomes in your college?

9. What should be done to improve students' experiences and graduate outcomes, and the quality of education in your college?

Appendix 6: Informed consent form

Research Project: Student Engagement in Ethiopian Public and Private Universities

Dear Participant:

Thank you for your willingness to participate in this research project. The main purpose of this research is to explore the role of existing national and institutional quality assurance policies, structures, and processes in transforming students' college experiences and graduate outcomes and the quality of education at Ethiopian public and private universities. In addition, the study is intended to identify an appropriate survey instrument that will later be used to assess the relationship between student engagement, student achievement, and the quality of education at Ethiopian universities.

Your participation in this study mainly involves participation in a semi-structured interview session, which will take approximately 30–45 minutes to complete. The data obtained in this interview will be used to explore national and institutional quality assurance policy and strategic priorities, structures, and processes established to promote the development of students' academic, social, and work-related experiences and competencies.

Participation in this interview is voluntary, and all information that you provide will be treated confidentially. This research project has ethical clearance, supported with letters from Tampere University and Mekelle University. While the results will be made public, you are guaranteed that you, this organization, and any personnel will not be identified in any report of the results of the study.

For any queries, concerns, or complaints, you are welcome to contact Professor Jussi Kivisto (Lead Advisor, Tampere University), Tel: +358-45 6751709, Dr. Zenawi Zerihun (Advisor, Mekelle University), Tel: 0933381351, or Mr. Haftu Kindeya (LMEU Institutional Coordinator), Tel: 0920774727.

Informed Consent:

Name of participant: _____

I am voluntarily deciding to participate in this study. My signature certifies that I have decided to participate, having read and understood the information presented. I understand that the interview will be recorded for the purpose of transcription. I have received a copy of this consent form.

_____   _____

Signature   **Date**

Appendix 7: Document review guide

Aims

This document review guide is designed to examine ***national education policy intentions, strategy provisions, and guidelines***. In addition, it is intended to examine ***national and university-level QA policies and guidelines***. More specifically, the document review guide is crafted to answer the following analytical questions that are closely related to the main research questions:

- How do national education policy intentions and legal frameworks address the issue of student engagement in Ethiopian HEIs?

- To what extent do the articulated national and institutional strategic provisions facilitate structural arrangements for student engagement in Ethiopian HEIs?

- To what extent do existing QA policies, guidelines, and tools encourage the institutionalization of student engagement in HEIs?

Confidentiality

All documents accessed will only be used to achieve the purpose of this research. Copyrighted documents will not be used unless proper permission is secured from relevant authorities. In addition, any direct quotation or paraphrased statements will be properly acknowledged and referenced. While the results will be made public, the anonymity of institutions and authoring individuals will be maintained where applicable.

I. Background Information

No	Document Title	Name of authoring institution	Year of publication	Place of publication	Main theme of the document
1					
2					
3					

1. Education Policy and Strategic Documents
 i) The document clearly stated an overarching educational philosophy that governs the education system.
 ii) The document clearly stated an overarching definition of what "teaching" is at HEIs.
 iii) The document clearly stated an overarching definition of what "learning" is at HEIs.
 iv) The document clearly stated the structural arrangements required to facilitate teaching and learning at HEIs.
 v) The document clearly stated the role of institutions in promoting "teaching" and "learning" at HEIs.

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vi)   The document clearly stated the role of management and administrative staff in facilitating "teaching" and "learning" in HEIs.

vii)   The document clearly stated the role of teachers in facilitating "teaching" and "learning" at HEIs.

viii)   The document clearly stated the role of students in "teaching" and "learning" at HEIs.

2.   Higher Education Proclamations

i)   The document clearly stated the mandates given to HEIs in designing, developing, implementing, and evaluating quality program curricula.

ii)   The document clearly stated the mandates given to HEIs in creating nurturing conditions for effective teaching and learning.

iii)   The document clearly stated the mandates given to HEIs to create wider on- and off-campus educational opportunities for students.

iv)   The document clearly stated the duties and responsibilities of HEI managers and administrative staff in providing the necessary human, financial, and material resources and facilities to ensure effective teaching and learning.

v)   The document clearly stated the duties and responsibilities of HEI teachers in promoting quality on- and off-campus teaching and learning processes.

vi)   The document clearly stated the duties and responsibilities of HEI students in improving their academic, social, and work-related competencies.

vii)   The document clearly stated the mandates given to HEIs in designing, developing, implementing quality assessment, and evaluation processes for student learning and development.

3.   Quality Assurance policies and guidelines

i)   The document clearly stated an overarching definition of what "quality education" is at HEIs.

ii)   The document clearly stated the quality standard for effective "management and governance" practices at HEIs.

iii)   The document clearly stated the quality standard for effective "student support services" at HEIs.

iv)   The document clearly stated the quality standard for program curriculum design, development, implementation, and evaluation processes at HEIs.

v)   The document clearly stated the quality standard for effective "teaching and learning process" at HEIs.

vi)   The document clearly stated the quality standard for assessment and evaluation process at HEIs.

vii)   The document clearly stated the quality standard for the recruitment, selection, and placement of academic and administrative staff at HEIs.

viii)   The document clearly stated the quality standard for the library, laboratory, ICT, and other educational resources required to promote effective teaching and learning process at HEIs.

ix)   The document clearly stated the performance standard for students' achievement of expected learning outcomes.