



MARKKU OJANIEMI

Changes in the Conceptualization of Leadership
during an African College Course



ACADEMIC DISSERTATION

To be presented, with the permission of
the board of the School of Education of the University of Tampere,
for public discussion in the Lecture Room Linna K 108,
Kalevantie 5, Tampere,
on April 5th, 2013, at 12 o'clock.

UNIVERSITY OF TAMPERE

ACADEMIC DISSERTATION
University of Tampere
School of Education
Finland

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Cover design by
Mikko Reinikka

Acta Universitatis Tamperensis 1813
ISBN 978-951-44-9071-2 (print)
ISSN-L 1455-1616
ISSN 1455-1616

Acta Electronica Universitatis Tamperensis 1291
ISBN 978-951-44-9072-9 (pdf)
ISSN 1456-954X
<http://tampub.uta.fi>

Suomen Yliopistopaino Oy – Juvenes Print
Tampere 2013

ACKNOWLEDGEMENTS

Writing this monologue has been an intriguing, challenging, but also a very rewarding process. I consider myself privileged that I was given this kind of opportunity. I would not have been able to finish this task had people, who have assisted me throughout the process, not surrounded me.

First, I want to express my gratitude to my supervisor Professor Pekka Ruohotie. From our first discussion by the Indian Ocean in Mombasa, Kenya, to the submission of this work, your help has been crucial. I have especially appreciated the numerous intriguing discussions, in which you gave me advice and encouragement to continue this project. Under your supervision this project has been a continuous process of learning. I am also grateful to Professor Petri Nokelainen, who worked as my supervisor during the final stages of my research. You have always been the most helpful and positive and given your time and valuable advice during the process.

I wish to convey my appreciation to the examiners of my dissertation, Docent Pentti Nikkanen and Professor Matti Koironen for their constructive and encouraging comments. I am also grateful to Doctor Hilikka Roisko for her helpful statements and comments during the research process.

I present my gratitude to Doctor Markku Luoma for his unselfish assistance in reading and commenting on a number of manuscripts. Your positive attitude and your discerning and encouraging comments have pushed me through many difficult moments. In a similar vein I want to thank Doctor Kari Korpelainen for valuable insights and feedback during our discussions.

I want to thank my superior Pasi Parkkila, principal of Iso Kirja folk high school for his support and for granting me a study leave that gave the much-needed time to

concentrate on studying. Thank you also for all the encouragement you gave me throughout the process. I also thank my friend Tommi Lenho for checking the linguistic form of the final draft.

I want to thank East Africa School of Theology, the administration, faculty, and the students that participated in this research. Literally, without your unselfish participation, contribution of time for interviews, and readiness to accommodate the research at the premises, this project would not have been possible.

Services provided by various organizations form a large part of all research. I want to thank the Huittinen and Sastamala public libraries, and especially the library and other services provided by the University of Tampere. Your assistance with material and your polite service has been a pleasant experience. I want to thank Koulutusrahasto for the financial support during my study leave.

I especially want to express my endless gratitude to my wife Pirjo. You played a big part at the beginning by encouraging me to start this project and you have continued in a similar manner throughout these years. We have had many discussions in which your comments have clarified the issues, you have provided the bread when I have been on study leave, and you have also postponed your own plans and many things that should have been done in order to provide me the physical and mental place to continue with my study.

ABSTRACT

This monograph is a phenomenographic study on intentional changes among Kenyan college students' conceptualization of leadership during an introductory leadership course. The interest in the subject arose from the researcher's experiences in leadership education in an African context and the need to understand the process of conceptual change and the factors influencing it. The aim of the research is to contribute to the understanding of intentional conceptual change in an African collectivist cultural setting.

Conceptual change has interested researchers for a long time, but as in scientific research in general, research done in an African context is not profuse. In a similar fashion, much of the conceptual change research has been conducted from the constructivist epistemological perspective. This present thesis utilizes the phenomenographic approach both in its approach to conceptual change and as the research methodology. The phenomenographic approach to conceptual change, with its distinctive understanding of concepts and change, could thus be said to offer an approach which has been less researched, especially in an African context.

This research focused especially in finding answers to the following three research questions. First, how do the participants' conceptions of leadership change during the leadership course? Second, how do the students' cultural beliefs appear in and relate to the process of intentional conceptual change? Third, how do the students' goals influence the in-course self-regulation and the resulting conceptual change?

The context for this research was the East Africa School of Theology, a Kenyan college located in the suburb of the capital of Kenya, Nairobi. The participants were the first year students of a three-year Bachelor of Arts program studying an

introductory course in leadership. The group consisted of the entire class of 18 students coming from various Kenyan tribes from all over the country.

This research shows that changes in the students' conceptions may take place within a relatively short period of time. The phenomenographic outcome space, consisting of the students' conceptions of leadership before and after the course, shows the changes in the ways the students experienced leadership. More specifically the results show relatively wide variation in the types of changes that took place, such as change of the core conceptions, change in the core elements or in their relationships, increased complexity of the leadership conception, as well as changes in conceptions closely related to leadership. In addition to the changes in leadership per se, the results show the changes that took place within the leadership related cultural conceptions including, for example, understanding of time and leader-follower relationships. Also the results show the influence of the other people on the process of change and the process nature of conceptual change. Regarding the intentionality of the change, the results highlight the importance of a deep approach to learning and self-regulation ability, the negative impact of commitment to collectivist culture on self-regulation and conceptual change, and, similarly, the negative impact of high utility value combined with focus on outcome expectation on conceptual change.

The researcher considers the results to be valuable because they increase understanding of the process of conceptual change and of the factors influencing it in an African collectivist cultural context specifically from the phenomenographic perspective. The results show the multidimensional nature of the process of intentional conceptual change. The results also indicate the need for more research and especially in such cultural contexts in which relatively little research in conceptual change has been conducted.

Key words: phenomenography, a way of experiencing, intentional conceptual change, Africa, culture, leadership, college students.

TIIVISTELMÄ

Tämä väitöskirja on fenomenografinen tutkimus intentionaalisista muutoksista kenialaisten yliopisto-opiskelijoiden tavassa käsitteellistää johtajuus johdanto-tason johtajuuskurssin aikana. Kiinnostus aiheeseen nousi tämän väitöskirjan kirjoittajan koulutuskokemuksista afrikkalaisessa kontekstissa ja tarpeesta ymmärtää käsitteellisen muutoksen prosessia ja siihen vaikuttavia tekijöitä. Tämän tutkimuksen tavoite on lisätä ymmärrystä intentionaalisesta käsitteellisestä muutoksesta afrikkalaisessa kollektivistisessä kulttuurikontekstissa.

Käsitteellinen muutos on kiinnostanut tutkijoita pitkään, mutta – kuten tieteellisessä tutkimuksessa yleensäkin – afrikkalaisessa kontekstissa tehty tutkimus ei ole runsasta. Vastaavasti, iso osa käsitteellisen muutoksen tutkimuksesta on tehty konstruktivistisesta epistemologisesta näkökulmasta. Tämä tutkimus käyttää fenomenografista lähestymistapaa sekä käsitteellisen muutoksen tarkastelussa että tutkimusmetodina. Fenomenografian omaleimaisen tavan ymmärtää käsitteitä ja käsitteellistä muutosta voidaan todeta tarjoavan vähemmän tutkitun lähestymiskulman aiheeseen, erityisesti afrikkalaisessa kontekstissa.

Tämä tutkimus keskittyy löytämään vastauksia seuraaviin kolmeen tutkimuskysymykseen: Miten osanottajien johtajuuskäsitykset muuttuvat johtajuuskurssin aikana? Miten opiskelijoiden kulttuuriset uskomukset tulevat ilmi ja liittyvät intentionaalisen käsitteellisen muutoksen prosessiin? Miten opiskelijoiden tavoitteet vaikuttavat kurssinaikaiseen opiskelun itsesätelyyn ja lopulliseen käsitteelliseen muutokseen?

Tämän tutkimuksen konteksti on East Africa School of Theology, kenialainen yliopisto, joka sijaitsee Kenian pääkaupungin Nairobin esikaupunkialueella. Osanottajat ovat kolmivuotisen alemman korkeakoulututkinnon ensimmäisen vuoden

opiskelijoita, jotka opiskelivat johtajuuden johdantokurssia. Ryhmä koostui luokasta, jossa oli 18 opiskelijaa. Nämä opiskelijat edustivat useita kenialaisia heimoja eri puolilta maata.

Tämä tutkimus viittaa siihen mahdollisuuteen, että muutoksia opiskelijoiden käsitteissä voi tapahtua suhteellisen lyhyessä ajassa. Fenomenografinen tulosavaruus, joka koostuu opiskelijoiden käsityksistä johtajuudesta ennen ja jälkeen kurssin, osoittaa muutoksen opiskelijoiden tavassa kokea johtajuus. Tulokset osoittavat myös suhteellisen laajan variaation tapahtuneissa muutostyypeissä, kuten ydinkäsitysten vaihtuminen, muutos ydinkäsitteissä tai niiden keskinäisissä suhteissa, johtajuuskäsitteen kasvanut kompleksisuus sekä muutokset johtajuuteen läheisesti liittyvissä käsitteissä. Varsinaisten johtajuuskäsitteiden muuttumisen lisäksi tulokset osoittavat muutoksia, joita tapahtui johtajuuteen läheisesti yhteydessä olevissa kulttuurisissa käsitteissä, esimerkiksi aikakäsityksessä ja johtaja – alainen -suhteessa. Lisäksi tulokset tuovat ilmi muiden ihmisten vaikutuksen yksilöön muutosprosessissa sekä käsitteellisen muutoksen prosessinomaisen luonteen. Muutoksen intentionaalisuuden suhteen tulokset korostavat syvällisen oppimisorientaation ja itsesääätelykyvyn tärkeyttä ja kollektivistiseen kulttuuriin sitoutumisen kielteistä vaikutusta käsitteelliseen muutokseen ja itsesääteilyyn. Samoin korkean käytännön hyötyarvon ja tulosodotuksiin keskittymisen yhdistelmä vaikuttaa kielteisesti käsitteellisen muutoksen tapahtumiseen.

Tämän tutkimuksen kirjoittaja pitää tuloksia tärkeinä, koska ne lisäävät käsitteellisen muutoksen prosessin ymmärtämistä ja muutokseen vaikuttavia tekijöitä afrikkalaisessa kollektivistisessä kulttuurisessa kontekstissa erityisesti fenomenografisesta perspektiivistä katsottuna. Tulokset osoittavat intentionaalisen käsitteellisen muutosprosessin moniulotteisen luonteen. Tulokset myös viittaavat lisätutkimusten tarpeellisuuteen erityisesti sellaisissa kulttuurisissa konteksteissa, joissa tutkimusta on tehty vielä suhteellisen vähän.

Avainsanat: fenomenografia, tapa kokea, intentionaalinen käsitteellinen muutos, Afrikka, kulttuuri, johtajuus, yliopisto-opiskelijat.

CONTENT

ACKNOWLEDGEMENTS	3
ABSTRACT.....	5
TIIVISTELMÄ	7
CONTENT	9
LIST OF TABLES	12
LIST OF FIGURES	13
1 INTRODUCTION	14
2 THE RESEARCH CONTEXT	20
2.1 Cultural Context.....	22
2.2 The Learning Context	31
2.3 The Researcher.....	39
3 INTENTIONAL CONCEPTUAL CHANGE AND LEADERSHIP	41
3.1 Intentional Conceptual Change as a Cultural Phenomenon.....	43
3.1.1 Prior Knowledge	48
3.1.2 What Changes in the Process?	51
3.1.3 The Nature and Process of Change.....	59
3.1.4 Intentionality	72
3.1.5 Conceptual Change and Leadership	77
3.2 Leadership as a Culture-Situated Phenomenon	78
3.2.1 Definition of Leadership.....	78
3.2.2 Leadership as a Social Concept	80
3.2.3 Leadership as a Cross-Cultural Phenomenon	83
3.2.4 Ontological Analysis of Leadership	86
3.2.5 Church Leadership	91
3.3 African Leadership.....	94
3.3.1 Traditional Leadership.....	95
3.3.2 Colonial/Post-Colonial Leadership.....	97
3.3.3 African Renaissance	101
4 METHODOLOGICAL CHOICES	109

4.1 Philosophical Premises	109
4.1.1 Ontology	110
4.1.2 Epistemology	113
4.1.3 Axiology	116
4.1.4 Conception of Human Being	118
4.2 Phenomenography as a Research Method	124
4.3 Concept Map	129
4.4 Implementation of the Research	130
4.4.1 Data Collection	131
4.4.2 Selection of the Participants	138
4.4.3 Language	141
4.4.4 Analysis	144
4.5 Trustworthiness of this Research	153
5 RESULTS	166
5.1 Students' Experience of Leadership Prior to the Course	168
5.1.1 Leadership as a Divinely Instituted System	172
5.1.2 Leadership as Personal Features	173
5.1.3 Leadership as a Communal Position or Role	177
5.1.4 Leadership as Authoritative Action	181
5.1.5 Leadership as Supervision	185
5.2 Conceptions of Leadership after the Course	188
5.2.1 Leadership as Influence	190
5.2.2 Leadership as Servanthood	195
5.2.3 Leadership as a Shared Project	198
5.3 Culture Related Changes	205
5.3.1 Leader-Follower Relationship	206
5.3.2 Conception of Time	208
5.3.3 Time Management and Effectiveness	213
5.3.4 Change in Progress	217
5.4 Types of Conceptual Change	224
5.4.1 Ontological Change	225
5.4.2 Increased Complexity through Introduction of New Elements	229
5.4.3 Modification of the Constitutive Elements or their Relationships	230

5.5 Intentionality and Conceptual Change	232
6 DISCUSSION	249
6.1 Learning of Leadership as Conceptual Change	251
6.2 Culture and Conceptual Change	257
6.3 Goals, Self-Regulation and Conceptual Change.....	263
REFERENCES	266

LIST OF TABLES

TABLE 1.	Hofstede's East Africa indexes of cultural dimensions	29
TABLE 2.	Summary of the theories of conceptual change	64
TABLE 3.	Views of the levels of changes of conceptual change	67
TABLE 4.	Traditional African leadership customs	96
TABLE 5.	GLOBE Comparison of Eurocentric and Afrocentric leadership	98
TABLE 6.	Changing perceptions and meanings of leadership	99
TABLE 7.	Philosophical views of Ubuntu	103
TABLE 8.	Comparison of the students' comments from the current research with Bolden & Kirk's research	106
TABLE 9.	Criteria for trustworthiness	155
TABLE 10.	The steps of epoché	156
TABLE 11.	Categories of description of conceptions of leadership before the Course	187
TABLE 12.	Structural relationships of the categories of description	202
TABLE 13.	Summary of the changes in the conception of time	209
TABLE 14.	Summary of the methods of self-control	239
TABLE 15.	Non-planned self-controlling methods	239
TABLE 16.	Ad hoc performance strategies	240
TABLE 17.	Summary of the main results	250

LIST OF FIGURES

FIGURE 1.	Diagram of Ubuntugogy	37
FIGURE 2.	Multidimensional view of conceptual change	46
FIGURE 3.	Phenomenographic anatomy of experience	55
FIGURE 4.	Phenomenographic understanding of the structure of awareness	58
FIGURE 5.	Domain general process of intentional conceptual change	75
FIGURE 6.	Anatomy of learning	76
FIGURE 7.	Graphical summary of the essential elements of leadership theories	87
FIGURE 8.	The subject – object relationship in experience	111
FIGURE 9.	Semantic triangle	115
FIGURE 10.	Phenomenographic research interest	127
FIGURE 11.	The six steps of phenomenographic analysis	146
FIGURE 12.	The outcome space of the students’ understanding of leadership before the course	170
FIGURE 13.	The structural hierarchical relationship of the main categories of description before the course	171
FIGURE 14.	Summary of the new conceptions	188
FIGURE 15.	The sub-categories of leadership as influence	191
FIGURE 16.	Combined presentation of the categories of description	200
FIGURE 17.	Description of leadership	204
FIGURE 18.	The subcategories of time’s relation to effectiveness	214
FIGURE 19.	Presentation of conceptual changes in relation to the theme of Awareness	225
FIGURE 20.	Outcome space of types of conceptual changes	232
FIGURE 21.	The cycle of self-regulation	233
FIGURE 22.	The concept map of the students’ outcome expectations	235
FIGURE 23.	The concept map of goals set by the students before the course	236
FIGURE 24.	The process of conceptual change in a collectivist culture	248

1 INTRODUCTION

Learning is defined as a process in which a person either applies existing experiences or constructs new meanings, which in turn direct his or her actions (Ruohotie 1995, 16). Leadership, according to Ruohotie (2006, 1), is a social process in which a leader regulates and influences a certain group's products and individual's cognitive and affective constructs. Both of these concepts are, in their various forms, pervasive factors of individual and societal life. These two concepts are joined together in this research about conceptual change of leadership.

Leadership has been researched widely during the last century, and is currently considered one of the most commonly studied domains of knowledge in social and behavioural sciences (Ruohotie 2006, 1). This interest in leadership includes also an interest on how it can be learned. There is a rather general consensus that leadership can be learned (Doh 2003, 64-66). Despite a more hesitant attitude by some towards the question whether it actually can be taught, various kinds of leadership development programs have been developed alongside the general leadership theory research. As Mills (2005, 1) states, "Few things are more important to human activity than leadership." This importance of leadership places a corresponding importance on learning leadership, as it is only through learning that people may be expected to lead rightly.

Learning as conceptual change may be caricatured as a personal-level version of the Kuhnian understanding of development of scientific knowledge. Based on Piaget's (1970) idea of genetic epistemology and reflecting Kuhn's (1970) proposition of revolutionary paradigmatic change as the way of progression of scientific knowledge, conceptual change typically concentrates on the major radical changes in an individual's cognitive development. In the 1970s, which marks the early history of conceptual change research, students' naïve conceptions and misconceptions were

under extensive research (Sinatra & Pintrich 2003, 1). Developmental psychology and science education research have especially paid attention to students' intuitive knowledge and its impact on learning (Schnotz, Vosniadou & Carretero 1999, xiii-xiv). Science educators have focused their attention especially on the external learning context. This line of research has produced the traditional model of conceptual change by Posner, Strike, Hewson, and Gertzog (1982) and this is also representative of science educators' efforts that have paid special attention to the external learning context. Cognitive developmentalists, on the other hand, have traditionally concentrated on an individual's cognitive structures and processes. This line of research has produced different ways of viewing knowledge structure, including Vosniadou's (1999) knowledge as theory -model and diSessa's (1993) knowledge in pieces -model.

Conceptual change research has introduced new approaches, particularly in relation to the nature of preconceptions and the mechanisms that bring about conceptual change (Schnotz, Vosniadou & Carretero 1999, xv). At the same time, conceptual change research has also seen an increase in the number of domains of knowledge from the original pointed interest primarily on scientific conceptions to include conceptions on such domains as mathematics (e.g. Vosniadou & Verschaffel 2004), biology (e.g. Pearsall, Skipper & Mintzes 1997), and history (e.g. Limón 2002). The research has also increasingly focused on learners' intentions (see e.g. Sinatra & Pintrich 2003) and on the role of socio-cultural factors on the process of change (e.g. Hatano & Inagaki 2003). It has been noted that the process of conceptual change is not purely rational, but includes beliefs, attitudes, and motivation and is enhanced by the student's conscious self-regulative actions and goal-setting (Sinatra & Pintrich 2003, 3-6).

Conceptual change is rather commonly considered to be a slow and gradual process. It is thought that a successful conceptual change requires such an extensive restructuring of one's prior knowledge that it is not usually accomplished within a short time (Vosniadou 2003, 377). However, individual college courses and especially various kinds of leadership trainings are often relatively short. In addition, leadership courses sometimes take place in a cross-cultural setting that makes learning even more

challenging. Naturally, regardless of this discrepancy between the task and the time, the students are assumed to appropriate new concepts within a short period of time.

A number of researchers have noted that the majority of research on both leadership and conceptual change conducted during the past half a century has been produced in North America and Europe (Yukl 2002; Hofstede 1993; White & Gunstone 2008, 620-621). A human being, however, is essentially a cultural being. Therefore, whatever a human being does, feels, or experiences, he or she does as a cultural being. As Berger and Luckmann (1966, 51) stated decades ago, *Homo sapiens* is always *homo socius*. This culturality applies also to learning and leadership. Durkheim (1956, 80), half a century ago, defined education as “methodological socialization of the young generation”. Leadership, on the other hand, belongs to social world (Bennis 2003, 1) and as such is always tied to culture. This socio-cultural nature of the human being and these phenomena mean that we need cross-cultural research. This need is evident in the global world, in which there is a continuous need to understand and learn from each other.

Globalization characterizes the macro level economic, political and social development in the world and influences nations’ and peoples’ lives on all levels. For example, in the global world, easy and fast worldwide communication makes intercultural relationships in various forms possible and necessary. Also, international business has become a real possibility for companies of all kinds and sizes, not only for the gigantic multinational corporations. One of the peculiar features of globalization is that it does not seem to lead to the abolishment or merger of grand cultures, but people continue to identify themselves with their existing cultures (Gannon 2008). Even though globalization has not turned our world into one global village culturally, it has changed the relationships between countries. For example, independent nations are not so independent anymore, but have become increasingly interdependent, as demonstrated by the recent economic recessions.

Globalization does not mean only increased intercultural communication, however, since countries are becoming more multicultural demographically, a developmental trend visible in Finland as well. For example, we have an increased number of foreign

students, immigrants in the process of becoming Finnish citizens, multinational companies, and recruitment of employees from abroad for shorter and longer periods of time. In addition, the student bodies of Finnish universities and colleges are becoming more international. Globalization thus increases the need and the possibility of cross-cultural understanding, in education and leadership as well as in other areas. As we come into continuous contact with people from different cultures, we need cross-cultural knowledge and skills in order to communicate and cooperate with each other. Furthermore, learning from people of other cultures enhances our possibility to understand phenomena in a better way, as other peoples' experience of these phenomena differs from our own.

Learning of leadership is a timely topic for research worldwide, but especially so in Africa, for several reasons. First, the growth of Africa's global importance is evident in areas like economics, politics, and peace (see e.g. Varner 2006; Mills 2004, 157-169; Frynas & Paulo 2007, 229-251). Second, Africa in general, and the continent's central region in particular, is not known for its scientific research programs (Adams, King & Hook 2010). Africa's history as an oral culture may be one of the reasons why leadership research and literature is not profuse, not even in South Africa, the leading country in scientific research in the region (Booyesen & van Wyk 2008). Third, Africans themselves (e.g. Mboup 2008) and people outside the continent (e.g. Meredith 2006, 676-688) describe the condition of African leadership as one in crisis. Many of the continent's problems are linked to lack of quality leadership.

Fourth, Africa is culturally rich and unique and thus offers an interesting and promising venue for research. As stated above, much of the research on leadership and conceptual change have taken place in Western culture. Consequently the findings reflect primarily and potentially Western culture and thought, characterized by individuality, rationality, individual incentives, emphasis on follower responsibilities and hedonistic motivation, and centrality of work and democratic values (House, Hanges, Javidan, Dorfman & Gupta 2004, 56; House & Aditya 1997). African culture, on the other hand, emphasizes collectivism, spirituality, equality, altruism, and holism (Nussbaum 2003; Jackson 2004). These cultural differences form a potential cultural and philosophical mismatch with regard to the results. Translation

of the underlying values of transformational leadership theory to Hofstede's (1980) cultural dimensions provides an example. The resulting profile does not match with any country profile, warning against any hasty application of theories and practices cross-culturally, even if part of the problem lies in Hofstede's categorization (Blunt & Jones 1997). This does not mean that Hofstede's (1980) categorization would be of no use or the results unreliable, but it underlines the need to conduct scientific research in different cultural contexts. Due to its peculiar cultural outlook, research in Africa can contribute to our understanding of both leadership and conceptual change.

The initial inspiration and topic for this research developed during the seventeen years the researcher lived in Kenya and Uganda, and worked in a number of different East-African countries. The work, which consisted mostly of teaching, took place in a variety of local cultures and educational contexts on different topics including leadership. The college courses and various types of seminars that were held were often at least moderately successful, if measured by the participants' expressed satisfaction, enthusiasm, and final exam grades. However, the conceptual and cultural differences often left the researcher wondering how much, and in what way, do the participants' conceptions of the issues at hand change in such a way that permanent changes in cognitive and physical behaviour are produced. As the course instruction was only one influencing factor in the process, one perennial question was raised, "What other factors influence the process of conceptual change?" On the basis of these personal experiences, conceptual change in leadership became the topic for this research and the following specific research questions for the study were formed:

1. How do the participants' conceptions of leadership change during the leadership course?
2. How do the students' cultural beliefs appear in and relate to the process of intentional conceptual change?
3. How do the students' goals influence the in-course self-regulation and the resulting conceptual change?

Thus, the following is a research on how Kenyan college students' leadership conceptions change during a leadership course. Chapter two presents the theoretical

research context, including African culture, leadership, and education, and the practical data collection context. Chapter three presents the researcher's theoretical pre-understanding consisting of the phenomenographic theory of learning as the research's perspective on conceptual change. It is followed by a general survey of the conceptual change and leadership theories. Chapter four presents the ontological, epistemological, and axiological considerations and the relevant methodological issues and choices. Chapter five presents the data-analysis and descriptions of the research results. Finally, chapter six provides a discussion of the results and the research as a whole.

2 THE RESEARCH CONTEXT

The overarching context for this research is Africa. The following paragraphs provide an explication of African culture and learning that form the more specific thematic contexts for this research. The context of data collection is Kenya, and more specifically a course of introduction to leadership in East African School of Theology, a Nairobi College in which the interviewees were studying at the time of data collection.

As noted above, the research context of this research is African. The term “African” calls for some clarification. First, this research follows the relatively common practice in that Africa refers to Sub-Saharan Africa, to the exclusion of the predominantly Arabic North of the continent. This type of division is rather typical because the continent is divided quite naturally into these two geographically, religiously, and culturally distinctive parts. The Sahara desert serves as a kind of geographical divider between the predominantly Arabic-speaking Islamic North and the predominantly Christian “Black” South, where people speak indigenous “African” languages. This kind of division is simplistic to a certain extent. The two areas are by no means absolutely homogenous racially, linguistically, or religiously, and the Sahara desert is not a barrier that has prevented communication and exchange and consequent cultural fusion between the two parts. However, even a casual look into the racial, ethnic, linguistic, and cultural differences between the North and the South implies that these areas and people have their distinctive features justifying this kind of division.

Second, and regardless of the claimed unity of the region, the expression African does not purport to present Sub-Saharan Africa as a homogenous whole. That would mean overlooking the area’s geographical vastness, or the great ethnic, cultural, and social diversity of African people. At present, Sub-Saharan Africa consists of over 50 independent countries, several thousand ethnic groups with a total population close to

one billion. Five of the world's six major divisions of humanity are found in Africa; out of which three are native to the continent. Also, one quarter of the world's languages are spoken exclusively in Africa (Diamond 1999, 377). It is clear that regardless of the limitation of our discussion to Sub-Saharan Africa, the term "Africa" is still a simplification, and all kinds of descriptions are generalizations and must be taken as such, i.e. generalizations. However, referring to Sub-Saharan Africa as a single entity seems to be justified on the basis of expressed similarities among the various African cultures. These similarities include race and language. Despite of the linguistic variation, all African languages have been classified as belonging to four macro-families (Tishkoff, Reed, Friedlaender, Ehret, Ranciaro, Froment, Hirbo, Awomoyi, Bodo, Doumbo, Ibrahim, Juma, Kotze, Lema, Moore, Mortensen, Nyambo, Omar, Powell, Pretorius, Smith, Thera, Wambebe, Weber & Williams 2009, 1035). Further, Shutte (1993, 46) points out that communality, the fundamental feature of ubuntu philosophy is common to all African languages and cultures. In a similar fashion, Karsten and Illa (2005, 612) provide examples from several African countries of resemblance of philosophical thought among African people (for additional information, see also Bolden & Kirk 2009; Nussbaum 2003).

Third, this division follows a rather common practice of African researchers and authors. Shutte (1993; 2004) and Mbiti (1991), writing about philosophy, as well as Mendelek-Theimann, April, & Blass (2006) Mboup (2008), Mbigi (2005), and Chhokar, Brodbeck, and House (2007), writing about leadership, to name just a few examples, all use "African" as a collective descriptive term in their discussions. Lastly, "African" is also the term that the participants of this research used in their descriptions during the interviews. When expressing their views about leadership, culture, conception of time, or self-concept, they often used "African" as a descriptive term. This indicates that the term African, although extremely wide-ranging in a number of ways, is largely considered a meaningful characterization of Sub-Saharan Africa. Thus, although the findings of a single research like this are derived from a specific group of people, it is still found meaningful to describe the group as African and apply African concepts to the group. These reasons are considered to justify the generalization and make the term "African" sensible and helpful for this research.

2.1 Cultural Context

One interest of this research is to observe how cultural beliefs influence the process of conceptual change of leadership. For this reason, the empirical data was collected in Africa, a culturally atypical area compared to the contexts in which the majority of research on conceptual change has been executed. Due to the scarcity of research in an African context on conceptual change, it was deemed appropriate to carry out a culturally general research rather than focusing on the influence of more specific cultural contexts. This decision was supported by some indications that a minute differentiation between cultures does not provide meaningful results. In his study on management in Kenya, Jackson (2004, 241-249) did not identify any significant differences between different Kenyan ethnic groups. Jackson's (ibid.) study included participants from ten different Kenyan ethnic groups, with the five smallest ones grouped together. For this reason, this research concentrates on the influence of the interviewees' ethnic culture on the process of conceptual change as a whole and assumes a definition of culture suitable for this purpose. This section provides the reader with the necessary explication of the interviewees' culture with some reflection on culture's relationship to learning.

Culture is an inescapable ingredient of human life and, therefore, culture, in one way or another, is involved in all scientific research. The natural consequence from this is that every scientific research should provide a specific, tailored definition of culture (Gannon 2008, 21). Despite globalization that creates cultural interdependence, or technological advances that enhance and facilitate cross-cultural communication, various groups of people have maintained their distinctive cultures. Culture is important, because a human being does not consist only of the general and universal human nature and one's unique personality, but also of a cultural element. Groups of people have developed different kinds of answers and beliefs to the basic questions of the world and human existence as well as practical ways to survive. In other words, every human being learns to think, feel, and act in a certain way in the specific cultural context he or she is growing up in. (Hofstede 2003, 4-7.)

Culture, in its broadest anthropological and perhaps the most conventional sense refers to values, behaviour, language, and products shared by a specific group of people. This type of definition has its roots in the time when the global population was smaller and various civilizations lived further apart from each other geographically with their distinctive cultures (Koivisto 1998, 54). In his definition of culture, Huntington (1996) distinguishes between culture and cultures. Culture in the singular refers to civilization as a sophisticated mind and to all results achieved in the development and stands as an opposite to “primitive” society. Civilization, as a quantitative term, is the largest unit of culture people identify with. Within civilization, people have different levels of cultures. Cultures in the plural correspond to Koivisto’s (1998) understanding and refer to a comprehensive way of life of a specific group of people including values, norms, thinking, institutions, religion, language, and so on. (Huntington 1996, 46-52.)

However, human experience and research have long ago established that culture is not an unequivocal conception that would exist only on the national or ethnic level. Furthermore, cultures no longer exist in seclusion, but in close contact with each other. Also, as Hofstede (2003) points out, people live under different layers of culture. In other words, the same people belong simultaneously to a number of cultures, such as national, tribal, linguistic, and religious cultures, which each have their own, possibly even mutually incommensurable, features. In addition, different social groups such as schools, professions, and hobbies, as well as distinctive age groups and organizations may also be considered to have their own specific cultures that bear importance on the individual person’s way of thinking and acting. To complicate the conception of culture further, these sub-cultures do not operate only within larger cultural frameworks, but also cross-culturally. Thus individuals and groups, as well as nations, live in a mixture of overlapping and interacting cultures.

On the other hand, there are factors that simplify this seemingly confusing situation by counterbalancing its influence. Gannon (2004) identifies factors that override cross-cultural differences and may consequently neutralize the potential separating and inapprehensive influence of cross-cultural differences. For instance, occupational similarities may create a strong bond that overrides cultural differences. Also,

occupational groups and social classes are recognized to have cross-culturally responsive practices and preferences that potentially have a stronger influence than culture. A joint problem-solving situation accompanied with potential rewards or punishments may also have a greater impact on the cross-cultural differences. (Gannon 2004, 14-18.) In relation to this, attitudinal factors may be more important than cultural differences. The study of cross-cultural virtual teams provide evidence that “swift trust,” i.e. trust created at the beginning of a project between team members, provides power to overcome cross-cultural differences in a common project (Jarvenpaa, Knoll & Leidner 1998, 29-64). However, it is noteworthy, that larger entities, such as national cultures, do not lose their significance in the face of this type of cultural fragmentation. Broader cultures maintain their significance as the several sub-cultures become understandable only in reference to the whole (Huntington 1996).

Culture is a paradoxical phenomenon, in the sense that cultural definitions make true statements that include ostensibly incongruous claims. This paradoxical nature of culture is visible in its definitions. It is recognized that cultures change, but on the other hand they have no definite limits, beginning or end. There are numerous expert definitions of culture, but at the same time these definitions display a wide variety of opinion. The essential element of culture is variously identified as communication, geography, religion, change, shared meaning system, or artifacts. (Gannon 2008, 18-21.) One aspect of this paradoxicalness of culture is its changing nature. Culture is at the same time historically identifiable with its specific values, beliefs, and practices, but the interdependent elements that form a specific culture are also under constant development (Brannen, Gómez, Peterson, Romani, Sagiv & Wu 2004, 27).

This paradoxicality means, among other things, that cultural determinations or definitions, and categorizations of people are always probabilistic and generalist by nature (Gannon 2004, xiv). Individualism and collectivism are two dimensions that are being used quite extensively in cultural categorization. However, identifying a culture as collectivist or individualistic does not mean that there is no individualism in collectivist culture or vice versa. First, the content of generic terms like individualistic or collectivistic is, to a certain extent, culturally specific. Thus, an act that is

considered as shunned individualism in a collectivistic culture may be considered normal practice in an individualistic culture (Gannon 2008, 24-26). Second, classification of people under few characterizing conceptions is always a simplification. Due to the simultaneous existence of numerous cultures and sub-cultures that people belong to, all generalizations need to be cautious and tentative.

Despite of the challenges with the conception of culture in itself, and the multifaceted nature of the phenomenon in practice, culture is a meaningful conception. Groups of people live, think, communicate, and do things in different ways and thus it is still possible and valid to speak about culture on a national and even on a continental level. This seems to be true especially in Africa. Despite of the fact that the world as a whole is becoming increasingly borderless through globalization (Gannon 2008, 150-152), at the same time African nations are in the process of becoming more African. The continent displays an attempt to formulate and clarify their indigenous identity and unity nationally and continentally through the identification of continentally indigenous cultural dimensions and characteristics. And this is not necessarily merely an African phenomenon. Naisbitt (1994) argues for the existence of global paradox. As the world economy grows bigger, the smallest participants gain more importance. This means that in the face of globalization, ethnic and cultural differences become even more important than before.

Hofstede (2003, 5) defines culture as “the collective programming of the mind which distinguishes the members of one group or category of people from another.” This collective programming has its source in cultural manifestations, i.e., symbols, heroes, rituals, and values. These manifestations, as the source for the mental programming of an individual, cover the various components of a person’s entire social setting, such as the immediate family and relatives, neighbourhood, school, peers, work place, and the community at large. To Hofstede (ibid.) culture is the middle level of human uniqueness, separated from human nature and individual personality. Human nature is a universal concept shared by all human beings. Personality, on the other hand, is an individual-specific way of cognition, emotion, and praxis influenced by both, the surrounding culture and personal experiences. (Hofstede 2003, 6.)

Worldview is an important cultural and personal construction. To Hofstede (ibid., 6) personality is a person's unique set of mental programs, which the person does not share with anyone else. This personality is thus that part which according to Hofstede (ibid.) contains a person's worldview. Worldview is defined as a set of presuppositions or beliefs that a person holds about the makeup of the physical and social reality (Koltko-Rivera 2004, 1-4). Worldview gives a person the non-rational base for thought, emotion, and behaviour (Cobern 1994, 5). Worldview is a culturally organized system of thought on the macro level (Kearney 1975, 247-270). In the worldview conception, "world" does not refer to the entire universe, but presents a more personal approach, referring to the totality in which a person lives and to which he or she is able to relate in a meaningful way (Aerts, Apostel, De Moor, Hellemans, Maex, Van Belle & Van der Veken 2007). Worldview, on the other hand, is a frame of reference into which a person is able to place everything presented to him or her by various experiences. In other words "it is a symbolic system of representation that allows us to integrate everything we know about the world and ourselves into a global picture, one that illuminates reality as it is presented to us within a certain culture" (Aerts et al 2007, 9).

Worldview consists of different cultural factors such as religion, gender, and ethnicity, which operate in a variety of contexts (Cobern 1994, 8). As the macro level form of thought, a person's worldview influences also his or her cognition. According to Koltko-Rivera (2004, 38-39), an experience, or stimulus, proceeds through the consecutive steps of sensation, acculturation buffer, and worldview before reaching the conceptual core processes in which the conceptualization takes place. Cobern (1994, 11) argues similarly that cognitive processes operate on micro and macro levels, micro level referring to domain specific knowledge and macro level to the fundamental presuppositions that all have. Thus worldview is an influential part of the conceptual change process.

Hofstede's (2003) definition of culture suites this research well although its specific recognition and emphasis of human mind could be viewed from a perspective foreign to phenomenographic expression. On the other hand, it specifically recognizes the close connection between an individual and his or her environment, a specifically

phenomenographic emphasis. Hofstede's (ibid.) definition serves as the basis for his identification of cultural dimensions. This classification in its original form has been widely used in research, and it has also served as the basis for other works, which have developed it still further. Because this research is specifically interested in seeing the influence of dimensions of etic culture on conceptual change, Hofstede's (ibid.) work provides a useful set for this purpose.

There are several dimensional approaches that different researchers have developed in their studies on ethnic, national, or continental cultures. The dimensional approach relies on a small number of dimensions through which a particular national culture is described. This type of approach inevitably loses distinctive cultural features of any group (Gannon 2004, 10), but at the same time provides an applicable description of the group. In the following, some of the studies that have included Kenya or East-Africa are discussed. Together these findings are considered to provide an adequate description about the participants' cultural context.

Gannon (2004) adopts a metaphoric approach to description of cultures. He describes a cultural metaphor as "any activity, phenomenon, or institution, which members of a given culture consider important and with which they identify emotionally and/or cognitively" (Gannon 2004, xiii). Gannon (ibid.) creates a four-stage model of cross-cultural understanding, which also utilizes and integrates models from other researchers. The four-cell typology of process/goal orientation and degree of emotional expressiveness forms the first stage. The second stage provides more specific information. This stage includes a four-cell typology of individualism-collectivism and power distance that results in four generic types of cultures: vertical and horizontal collectivism and vertical and horizontal individualism. In the third stage, Gannon (ibid.) utilizes other dimensional approaches to culture, including Hofstede's (2003) model. These additional dimensions provide a further and more specific distinction between countries that in a more simple analysis would appear analogous. In the fourth stage, various cultural metaphors are employed. Gannon (ibid.) identifies 22 specific variables such as religion, public behaviour, social class structure, and humor that were used in the formulation of these metaphors.

Especially significant in relation to this study is Gannon's (ibid.) metaphoric approach's result of "a Sub-Saharan bush taxi," a metaphor for Sub-Saharan Africa. This metaphor provides a vivid overall portrayal of African culture and thus a description of this research overall cultural context. Sub-Saharan Africa is paradoxical, because an ordered structure lies behind the apparent chaotic front. Although not obvious at first, Sub-Saharan Africa's culture has rules and conventions that guide the daily life of people. Sub-Saharan Africa's past includes scattered hunter-groups that eventually led to the establishment of independent kingdoms with highly developed cultures. Invasion of Europeans and other foreigners led to increased slave trade and colonization of the continent. Modern Sub-Saharan Africa is often known for its problems such as famines, civil wars, poverty, AIDS, and even genocides. Absence of infrastructure, lack of civil institutions, lack of economic and educational opportunities and industry influence everyday life of her people. Despite of all the negative factors, Sub-Saharan Africa's culture is full of optimism and vitality. For example, people are polite and communal sharing is underlined. Also, Sub-Saharan Africa's culture emphasizes communality and respect for elderly people. In Sub-Saharan Africa, time is to be made; it is not a commodity. People are fatalistic, and the future is only potential, not actual, and consequently only of secondary value. This fatalism does not mean, however, that people would be passively expecting for one's unavoidable death and the subsequent journey to be with one's ancestors. Fatalism is not same as futility; instead it means dignity when a person faces misfortune and humility at the time of prosperity. Life is not limited to the physical realm, but is lived together with the ancestors. (Gannon 2004, 419-431.)

Hofstede (2003) formulated originally a four-dimensional model for describing differences between national cultures. First, power distance (the extent to which the less powerful members of institutions expect and accept unequal distribution of power); second, collectivism versus individualism (collectivism meaning that the interest of the group outweighs the individual's interest); third, masculinity versus femininity (masculinity referring to the system in which social gender roles are clearly distinct while in femininity they overlap); and fourth, uncertainty avoidance (the degree to which the members of a culture feel vulnerable by uncertain or unfamiliar situations). (Hofstede 2003, 23-138.)

After the original work, two other dimensions, long-term versus short-term orientation and indulgence versus restraint, have been added to the model (Hofstede 1991; Hofstede, Hofstede & Minkov 2010). Short-term orientation refers to a strong concern for establishing the absolute truth, normative thinking, respect for traditions, and focus on achieving quick results. Restraint refers to suppression of gratification of needs and use of strict social norms for their regulation.

The results of Hofstede’s (2003) original study findings are presented below (table 1). In Hofstede’s (ibid.) study, Kenya was not represented on its own but belonged to the regional group of East Africa. Regarding the new dimensions, Kenya’s index for the long-term versus short term is 25 (Hofstede et al 2010, 255-258). The scores for Finland in the table are provided for comparison.

Table 1. *Hofstede’s East Africa indexes of cultural dimensions* (Hofstede 2003, 23-138)

Dimension	East Africa Index	West Africa	Finland
	(The total number of units 53)		
Power Distance	21/23	10/11	46
Individualism	33/35	39/41	17
Masculinity	39	30/31	47
Uncertainty Avoidance	36	34	31/32

The results indicate that East Africa was not at either extreme in any of the dimensions. According to the results, she is a collectivist culture with relatively clear social gender roles. The relationships between subordinates and their superiors are characterized by considerable dependability, substantial emotional distance, and subordinates’ probable avoidance of direct confrontation.

Hofstede’s (2003) and Hofstede, Hofstede and Minkov’s (2010) dimensions are utilized in this research as they offer a potentially fruitful approach for the observation of the culture’s role on conceptual change. In other words, the answers to the second

research question: how do the students' cultural beliefs appear in and relate to the process of intentional conceptual change, are attempted through them. Hofstede's (ibid.) dimensions implicate a variety of factors influencing understanding of leadership and conceptual change. These include such as relationship between a leader and followers, collective's influence on the process of change, person's readiness to change, and clarity of roles.

Hofstede's approach has received some criticism. Gannon (2004) sees Hofstede's (2003) dimensions as difficult for practical use and also incomplete, resulting in descriptions that lose cultural richness and depth. According to Jackson (2004), Hofstede's (2003) results regarding Africa are not helpful due to the small sample size. Furthermore, Jackson (2004) states that Hofstede's (2003) description of collectivism is too general; disregarding the specific characteristics of an African form of collectivism. On the other hand, Hofstede's (ibid.) approach has proven robust and useful as other researchers (e.g. Gannon 2004; Chhokar, Brodbeck, & House 2004) have utilized these dimensions and have also attempted to improve the dimensions by developing them further.

Chhokar, Brodbeck, and House's (2004) study built on Hofstede's (2003) study. Two of Hofstede's (ibid.) four dimensions, i.e., uncertainty avoidance and power distance, remained the same while the two others were modified. Chhokar et al (2004) divided Hofstede's (2003) collectivistic dimension into two, institutional collectivism and in-group collectivism, in order to detect more precisely the specific nature of collectivism. Institutional collectivism measures societal emphasis and in-group collectivism pride in and devotion to small groups and organizational cohesiveness. To replace Hofstede's masculinity dimension, Chhokar et al (2004) developed gender egalitarianism (promotion of gender equality) and assertiveness (the extent to which members of an organization are confrontational, assertive, and aggressive in social relationships) dimensions. In Chhokar et al's (ibid.) study, Sub-Saharan Africa formed the closest cluster to Kenya. The results indicate that the Sub-Saharan Africa cluster scored high in the humane orientation dimension, while in other dimensions the results were in mid-range without any low scores in any dimensions (Chhokar et al 2004, 1021).

In summary, the cultural context of this research is complex and heterogeneous, but carries the marks associated with collectivist culture in various studies. Its outlook is optimistic and displays vitality. It emphasizes communality, respect for traditions and elderly people. It emphasizes dignity of all people and approaches life with humility. It has a religious outlook, which recognizes the metaphysical realm. It displays somewhat unequal distribution of power, and shows low to moderate gender egalitarianism. People are integrated into strong cohesive small groups and display medium level societal emphasis. Compared to Finnish culture, people are more uncomfortable with unstructured situations and more assertive and competitive. The culture is moderately human and performance oriented. The existence of specific differences among the participants is not considered to present a challenge to this research, which concentrates on identifying the influence of cultural constructs on conceptual change, but not on any specific form of such a construct.

2.2 The Learning Context

A short introduction of Kenya is in order because it forms part of this research's context as all the interviewees were Kenyan and were studying in a Kenyan college during the research. Kenya is an East African equatorial country, with a total area of 582,650 sq km and a population of approximately 40 million. Kenya is a multiethnic nation of mainly Cushite (e.g. Somali), Bantu (e.g. Gikuyu, Luhya, and Kamba), and Nilotic (Luo, Kalenjin, and Maasai) people: the Gikuyu, Luhya, Luo, Kalenjin, and Kamba being the largest ethnic tribes as measured by population. In addition to these indigenous people groups, Asian, European, and Arab populations form a minority of one percent of the total population. The country is multilingual, with English and Swahili as the official national languages, on top of which there are numerous additional indigenous tribal languages. The main religion of Kenya is Christianity, with 38 percent protestant and 28 percent Roman Catholic, but other religions are also represented. For example, seven percent of the people are Muslims, while 26 percent follow indigenous beliefs, and the final one percent consists of other faiths, although the estimations vary (statehousekenya). Kenya gained its independence in 1963 from

British colonial rule. The country is a member of the Commonwealth, and politically a multiparty democratic republic.

The educational context for this research is the East Africa School of Theology (EAST), a Kenyan university located in Mumias South Road, Phase 4, Buru Buru Estate, Nairobi, Kenya. It offers various educational programs of different length and level, starting from a one-year pre-university program to three-year diploma programs and four-year Bachelor of Arts programs with a choice of three different majors. EAST is a university, registered by the Commission for Higher Education in Kenya and its academic degree programs are also in conjunction with Global University, which is accredited in the US by the Higher Learning Commission. EAST's mission statement emphasizes its role as a training centre for shaping servant leaders. The university was originally established in the neighbouring country of Tanzania in 1968, but moved to Nairobi, Kenya, where the university has operated since 1979. The university's student body is rather international, since the students represent different African countries. The annual student enrolment is currently over 500. (EAST home page.)

The students interviewed in this research were first-year diploma program students at EAST. The interviews were conducted at the beginning and end of a compulsory introductory course to leadership, which was the students' first leadership-related course at the university. The course is a general introductory level course that aims to provide the students with the basic theoretical and practical understanding of leadership. For more specific information regarding the course, please see Appendix 1. The course is followed by an advanced leadership course during the students' second year of studies.

Due to the history of missionary efforts and colonization, Kenyan education has been influenced by European and especially British educational philosophy and systems. The colonial educational system was segregative, with different schools for Europeans, Asians, and Africans. This division forms the basis for the current situation, with the existence of government schools, many private schools, as well as the so-called harambee schools. The current educational structure is a system of 8-4-4,

the figures referring to eight years of primary school, which are followed by four years of secondary education, and four years of university education that results in a bachelor's degree (Wosyanju 2009, 3-4).

According to Adeyinka and Ndwapi (2002, 18-19), preparationism, functionalism, communalism, perennialism, and wholisticism formed the philosophical foundation for traditional indigenous African education. Preparationism refers to education as gender-based preparation for a person's role in the community, accepting one's obligations, and appreciating the community's culture. Functionalism points to the utilitarian nature of indigenous education. Education was close to everyday life and thus its productivity was maximized. Communalism means that all people of a given community were agents of education and that communality served also as an important goal of education. Perennialism refers to the education's conservative outlook. It was important to maintain the traditions and everything new was looked at with suspicion causing slow progression. Education was also wholistic by nature; i.e., the society did not make room for specialization in education or profession. Thus the aim of education was to produce people with multiple skills prepared for all the tasks included in everyday life. (Adeyinka & Ndwapi 2002, 18-19.)

In practice, education was based on one's immediate cultural group and covered both theory and practice. Education, both formal and informal, was closely linked to the everyday life of the community and therefore it was not institutionalized in the sense of a separate school system. Family, village, clan and tribe formed the framework within which a person learned his/her duties and responsibilities and assumed his/her proper role and position in a community. The teachers included one's immediate family, relatives, neighbors and peers. These taught all the necessary skills, knowledge, values, customs, etc., needed to survive and succeed in life. There were also professionals who acted as teachers and taught specific skills and professions in the form of apprenticeship. These included herbalists, blacksmiths, carpenters, soldiers, fishers, weavers, potters, leaders, and so on. Initiation rites, storytelling, dance, music, religious rituals, and art were some of the means through which people acquired their worldview, values, and beliefs.

Each group had its specific necessary customs and skills depending on the specific environment they lived in. These distinct circumstances dictated the knowledge and skills needed for life. However, at the same time, common customs and values, such as respect for elders, negative attitude towards premarital sex, and courage were taught to all. The students were tested as they were forced to take responsibilities in real-life situations. Professional education ended in graduation ceremonies and entitled one to practice the profession. Education started usually at the age of eight and continued as long as one lived. It was education for life aimed at giving personal satisfaction, development of personal potential, and fulfilment of one's role in relation to society. The curricula covered all areas of life such as politics, religion, history, economy, etc. Since the dead were viewed as members of the family, communication with them was also included. Education had specific goals, not only in terms of repeating what was taught but also in terms of values and attitudes, skills of reasoning and problem solving. (Bangura 2005, 20-24.)

The goal of education has changed at different phases of the history of the country. During the colonial time, education aimed at educating Africans for productive function from the colonial perspective. Post-colonial Kenyan education initially emphasized academic education in an attempt to eradicate the status of inferiority, but has since moved back to a more practically oriented educational philosophy (Eshiwani 1993). Hence, current aims of education include collective and individual levels. Collective goals include national unity and development as well as international awareness, whereas individual level goals include development of personality and talents, becoming effective in life by learning necessary knowledge and skills, and promotion of social obligations and responsibility (Bennaars 2005, 169-171). Mwaka, Musamas and Nabwire (2011, 3) identify nationalism and patriotism, national development, individual development, promotion of moral and religious values, equality and responsibility, respect for national cultures, international consciousness, and positive attitude toward health and environment as national educational goals in Kenya.

Regarding the practical side of the current university level education, few general comments will suffice. Kenyan tertiary education, like primary and secondary

education, is in its basic form in line with European education. At the moment, there are 24 universities in Kenya, seven public and 17 private ones with either full or interim university charters. Enrolment is at three percent, which is about 50,000 students of which c. 80 percent attend public universities, while the rest are enrolled at private universities (Wosyanju 2009, 6-12). Many concerned parties seem to be worried about the quality of university education in Kenya. Enrolment grew rapidly beginning in the 1990s with the changes in the overall educational system but without increased funding there has been a decrease of quality and concerns about relevance (Mwiria 2007, 2). Out of the 24 universities, 15 are ranked among the top 12,000 universities world wide, with the University of Nairobi being the highest with its rank of 2452 (Ranking Web of World Universities). Regarding research and publishing, Wosyanju (2009, 9) indicates that a lack of qualified researchers and a lack of funds are the two primary reasons for halted growth of research in the country.

African education seems to reflect a rather similar pattern to leadership. As in leadership, the current African trend in education is to attempt to create a more indigenous educational philosophy and practice. Therefore, a number of African researchers and educators among others have called for a specifically African educational paradigm that would take seriously the continent's educational history, world-view, knowledge, and practices (see e.g. Zulu 2006, 32-49; Higgs 2002, 27-35). This call seems to be justified on the basis that in the past Africa's indigenous potential has been largely bypassed. Also, Africans often consider Western educational systems incompatible with the African worldview, because they fail to appreciate the integrative nature of African life. This passion for appreciation, creation, and use of indigenous African educational principles and practices is part of the general ethos in African education today.

This call has been linked to African philosophy called ubuntu, which is discussed in some length in the methodology section below. Sticking to its holistic and communal perspective, ubuntu-based education does not have a cognitively educated individual as its final target. Learning is not something an individual does for his or her own good. According to Mbigi (2005), African learning is a collective effort. The methods, meaning, and context of learning are all social. People learn together and thus enforce

their mutual interdependence by celebrating and canonising it. The primary purpose for acquiring cognitive, attitudinal and aptitudinal competence is the integration of individuals into society for the advancement of all. The community makes people better than they could be alone and individuals have their responsibilities towards the community. From a practical point of view this means that education based on ubuntu makes every effort not to be separated from everyday life. People learn by doing and sharing. Doing is a place for personal and collective reflection in which the value of theories is tested practically. Sharing enforces learning and offers an opportunity to learn more.

Bangura (2005, 31-44) attempts to form an indigenous African theory that would capture the essential elements of Africa's educational thinking (figure 1). According to Bangura (ibid.), ubuntu philosophy's three core principles: religiosity, consensus, and dialogue should form the foundation for African education. In addition to these characteristics of ubuntu, cultural diversity and pluralism are the basic values that permeate everything. This pluralistic philosophy recognizes the existing cultural diversity of the continent and calls for use of all possible sources of knowledge, African or foreign, in a strongly contextualized teaching and learning process. This process includes the use of local languages as only this enables the thorough appreciation of local culture and use of local resources. Education should be interdisciplinary and should not be separated from real-life, but use real-life situations throughout the process: as sources of knowledge, learning situations, and goals of education. In the spirit of ubuntu, teaching and learning should be participatory by nature (Bangura 2005.)

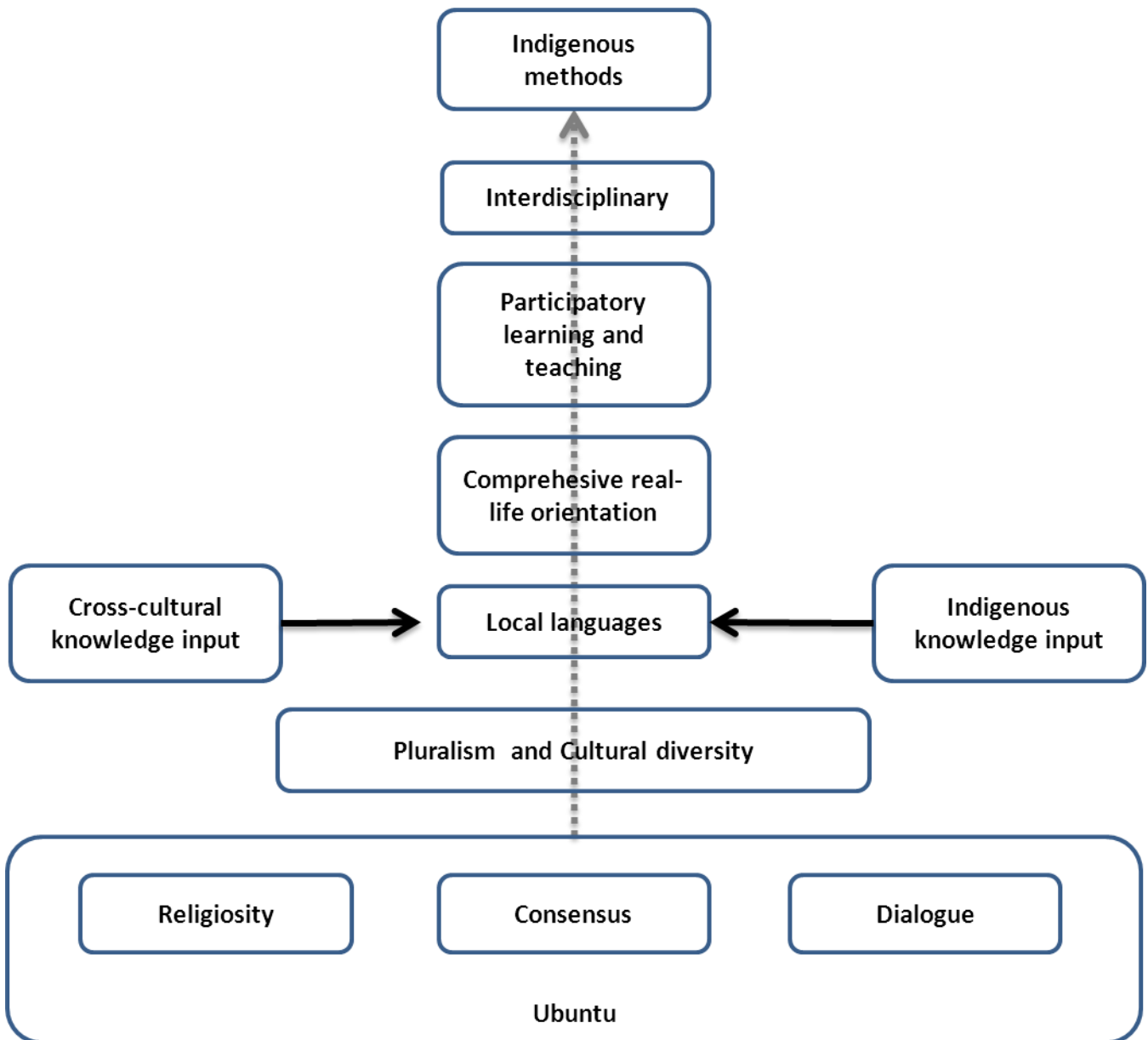


Figure 1. *Diagram of ubuntuogy* (based on Bangura 2005, 31-44)

Bangura's (ibid.) presentation is by no means the only one. van der Walt (2010) provides a more critical approach to ubuntuogy as he does not see a return to the past as a viable option. He argues that the traditional philosophy should be updated by adopting a more holistic view, placing more emphasis on the individual, but without losing the communal view, and updating the religious attachment suitable for the modern context. Therefore, ubuntu must be adapted to be relevant in the modern, global industrial society in order to recognize the positive contributions from the

Western world as the foundation for a new ubuntu pedagogy (van der Walt 2010, 249-266.) Despite of their differences, this short discussion clarifies the growing general educational ethos in Africa, which aims to provide an African foundation and principles for education.

Regarding this study, the students' physical instructional setting was relatively similar to that of any European college setting. Class sessions were the main medium of instructions. They took place on the college compound in a classroom in the conventional form of the teacher lecturing and facilitating the consequent discussion on the daily topic. The students had two main assignments. First, they had to interview a leader about their understanding of leadership, and second, to write a syllabus and schedule for a short leadership course. The language of instruction was English, although the discussion occasionally took place in Swahili. The students were encouraged to read additional material in the college library.

The leadership course in connection of which the conceptual change was researched, is a part of a three-year diploma level professional educational program. The program as a whole was planned to provide students with basic professional competence to work in various types of leadership roles primarily in the Christian church but also in parachurch organizations. The leadership course was thematically a general introduction to leadership. It consisted of such issues as introduction to leadership, leadership styles, time management, a leader's character and so on. It approached leadership from a general perspective, but identified leadership as an organizational phenomenon. As the course took place in a theological college, the instruction included a Christian perspective, but the content was not limited to or even predominantly characterized by Christian spiritual leadership.

On this basis the students interviewed in this research may be characterized as persons who were preparing themselves to become leaders in local churches or in some kind of church-based organizations. However, some students indicated in the interviews that they see their future in communal or political leadership so this characterization is more indicative than limitative. The participants were not required to have any particular organizational or institutional position or experience of leadership. The

research was directed particularly to those people whose intention it was to become leaders and who have some experience in it, but whose understanding of leadership can still be considered to be in the process of being formed on a relatively basic level.

2.3 The Researcher

In a qualitative phenomenographic research process, the researcher is not considered to be an objective observer but an essential part of the study, especially in the interviews and in the analysis phase (Ahonen 1994, 123), or, as Kvale (1996, 147) argues regarding qualitative interview, the interviewer is the research instrument. This is especially true in phenomenographic interviews and analysis, since in both the researcher plays a crucial role. This type of role calls for an explication of the researcher's background.

Before this research, I had lived and worked in Africa for 14 years during a period of 17 years, starting from November 1989. I had lived in Kampala, Uganda, for seven years and in three different locations in Kenya, Koru, Kakamega, and Nairobi. During this time, I learned Swahili, the official language of Kenya and was able to communicate with the local people in that language. The 14 years had given me the confidence that I had a deep enough knowledge of the local culture(s) in order to conduct this research.

Banks (1998, 7) presents a typology of cross-cultural researchers including four types: indigenous-insider, indigenous-outsider, external-insider, and external-outsider. Banks (ibid.) describes the external-insider as a researcher who has been socialized with another culture and has acquired its beliefs, values, behaviors, attitude, and knowledge and whom the community has adopted as an insider to the new culture. As stated earlier, I had spent 14 years in East-Africa, out of which seven were spent in Kenya, by the time of the research. During these years I learned the national language, Swahili, grew somewhat familiar with the general Kenyan culture, the customary ways of thinking as well as the norms and systems of social life. I do not want to claim that I am an external-insider, as I consider it improper for a person himself to

make this kind of classification, since in my opinion this belongs to the local community. Let it suffice to say that I have grown to respect and accept many African perspectives on life, and occasionally question the culture I have been primarily socialized in.

During my time in Africa, I worked in different educational settings and positions. In my first work in Africa, I trained local people to continue the work in a printing press after the expatriates had left the country. This work continued for four years. At this time, I also conducted seminars in local churches on different topics. After this I worked as an academic dean in the Kampala School of Theology for three years. My next appointment was in Kenya, in which I implemented a Bachelor of Arts program for Koru Bible College, while also working as the College's principal. At the same time, I participated as a consulting lecturer in different kinds of leadership seminars in Kenya, Ethiopia, Sudan, Tanzania, and Uganda.

My work in the above-mentioned places, tasks, and roles gave me the interest in the results of formal instruction based education. As mentioned in the introduction, the immediate verbal response by the participants to courses and seminars was always extremely positive, seemingly due to African politeness. However, a casual informal follow-up of the actual impact of the teaching left many questions during the years. This research grew out of these reflections on the influence of training.

Before the beginning of this whole research project and related studies, I had no previous academic engagement or particular knowledge of conceptual change or leadership, except for some individual courses of learning and leadership in both undergraduate and graduate studies. Thus my acquaintance with leadership and conceptual change was experience based.

3 INTENTIONAL CONCEPTUAL CHANGE AND LEADERSHIP

In the following paragraphs the main characteristics of intentional conceptual change are sketched out with a specific emphasis on cultural perspective. It includes a discussion on leadership and the theory of intentional conceptual change with a specific eye on the phenomenographic view of it, as this research utilizes the phenomenographic perspective of conceptual change. The general and phenomenographic view of conceptual change are combined together into one presentation, in such a way that within every aspect discussed, the general view is presented first and the specific phenomenographic perspective follows (for an excellent explication of the phenomenographic theory of learning, see Roisko 2007, 48-76). This section forms the theoretical landscape within which the analysis of data and location of the results of the current research takes place. In relation to leadership, the presentation is unavoidably generic due to the scarcity of research and theorization of conceptual change in leadership. In line with the phenomenographic research's explorative nature, this research's aim is not in testing the existing theories. Consequently, the presentation reflects the researcher's pre-understanding of leadership and conceptual change, serving as background knowledge that sensitises the researcher to the domain of research and assists him particularly in data collection and analysis.

The derivation of learning as conceptual change is rather commonly traced to Thomas Kuhn's "The Structure of Scientific Revolutions." Kuhn (1970) challenged the then seemingly prevalent conception that science is a piecemeal process being developed by accumulation of individual discoveries and intentions. Instead, Kuhn (*ibid.*) argued that science progresses through scientific revolutions and further proposed that after passing an elementary pre-paradigmatic phase, scientific research of a particular domain operates within the accepted paradigm. This paradigm provides criteria for

determination of research problems and validity of the results, methodology, and communicational conventions. Kuhn (ibid.) calls working within a certain paradigm normal science, a science that most scientists do and which is characterized by puzzle solving. Occasionally however, some individuals challenge and step out of the prevalent paradigm and suggest a new one that allows a new perspective that leads to formulation of a completely new paradigm. The scientific revolution is completed after the new paradigm conquers the old one and becomes the dominant paradigm of the domain within which the consequent normal science is practiced. (Kuhn 1970.) Posner, Strike, Hewson and Gertzog (1982) utilized Kuhn's (1970) views and combining them with the Piagetian concepts of assimilation and accommodation as they developed the now traditional model of conceptual change.

Following Posner et al (1982), science education research has focused on instructional practices, learning environment, and curriculum planning in their study of conceptual change. Although conceptual change research has made significant progress, there is yet to be developed a commonly accepted paradigm for conceptual change. Similarly, some parts of it, e.g., the nature of individual intuitive knowledge, are still under development. Thus, all existing theories, at least potentially, make their unique positive contributions towards the theory formulation. Existing theories approach conceptual change from different perspectives, including epistemological (Strike & Posner 1985, 1992), ontological (Chi et al 1994; Vosniadou 2007b), socio-cultural (Ivarsson et al 2002) and multidimensional (Tyson et al 1997; Dole & Sinatra 1998). As researches display (see e.g. Venville & Treagust 1996; Venville, Gribble & Donovan), use of different perspectives in analysis has proven to have positive explanatory power. Thus the different perspectives present in the following paragraphs may be viewed mutually complementary in that all theories add essential aspects to the understanding of conceptual change as a whole, although they differ from each other in a number of aspects.

3.1 Intentional Conceptual Change as a Cultural Phenomenon

Traditionally, in the study of learning, culture, and the specific cultural context of learning, have not been the focuses of attention. Cognitive theory focuses on the human mind that processes information, and constructivist theory emphasizes the learner as the active constructor of knowledge. Thus, knowledge has been viewed primarily as a cerebral matter and learning has been understood as a process of construction and internalization through transmission and assimilation, without consideration of the nature of the learner, world, or their relationship (Lave & Wenger 1991, 47). Development of socio-cultural theories of learning indicates recognition and inclusion of socio-cultural environment to learning. According to the socio-cultural approaches, learning should be studied within its cultural-historical frame. Consequently, these lines of researches have focused on studying social activity and interaction instead of the learner (Tynjälä 1999).

The development of the theory of conceptual change reflects this developmental trend. The traditional model of conceptual change adopted a rather rational approach to the change process. Posner and Strike (1982) defined learning as a rational activity in which the learners incorporate new conceptions into their existing cognitive structures replacing the dysfunctional conceptions. The emphasis was on rationality that was viewed as the ability of the theories to solve intellectual problems. Also, the conditions for conceptual change were thought to be rather exclusively rational by nature. Lately, conceptual change research has increasingly paid attention to the socio-cultural aspects of learning. Actually, the recognition of the social nature of learning of scientific concepts may be traced back to Kuhn's (1970) switch from theory to paradigm. Theory, as a set of propositions, implies individual cognitive activity, whereas paradigm carries the notion of science as a social activity, emphasizing the role of the scientific community, their shared commitments, interpersonal discourse and the like (Kuhn 1970).

In their work, Pintrich, Marx and Boyle (1993) pointed out that pure cognition is hardly a complete answer to conceptual change and suggest the influence of motivational and contextual factors as mediators and moderators in the process of

conceptual change. Similarly, Säljö (1999) argues for a socio-cultural view of concepts and conceptual change which recognizes the connections between discursive practices and individual learning, and pays attention to the situated nature of conceptual knowledge and communication as the medium through which people come into contact with concepts (Säljö 1999, 83-84). Lave (1996, 149) argues that presenting learning as an individual cognitive activity is a distortion and ignores the fundamental relational characteristic of humans as well as the social and collective nature of learning.

Arguments like this have drawn attention to the role of culture and socio-cultural aspects of learning. Culture is an inevitable part of conceptual change of leadership at least in three ways. First, ontologically, culture is in the centre of conceptual change simply because a human being is in part a cultural creation. Human mind and experience are dependent on culture, because the development of the hominid mind is linked with the development of the way of life of a particular community. Second, cognitively, because an individual inescapably utilizes cultural symbol systems in the constitution of new understanding. Therefore, the function of the mind is dependent on the available tools (Bruner 2009, 160-161; Ferrari & Elik 2003, 21-22). As the sources of knowledge are in cultural environment, knowledge is, to a certain extent, also cultural. Third, learning, whether informal or instruction based, is always a culturally situated activity. The prevalence of culture in learning seems to require an even more thorough consideration of the potential of cultural indigenous knowledge for scientific research. As Livingstone (2003, 14) claims, place matters even in scientific truth claims.

The recognition of socio-cultural aspects of learning has led researchers to develop models that would accommodate all aspects of the multidimensional phenomenon. For example, according to Ferrari and Elik (2003), culture and social context mediate the process of conceptual change. Culture mediates the process of change through authorized narratives and conceptions, institutional norms and practices, physical artefacts such as cultural objectifications, and language, while social contexts mediate the process through the influence of other people (Ferrari & Elik 2003, 39-40.)

Dole and Sinatra's (1998) Cognitive Reconstruction of Knowledge Model takes into account several seemingly important aspects of conceptual change. They model the change process as an iterative interaction between the essential elements of a learner's prior conception and motivation and the pertinent qualities of the message. Placing the resulting information procession on a continuum from low cognitive engagement to high metacognitive engagement seems to do better justice to the variations of change than the traditional no/weak/strong change division. This is because they are able to cover more ground of the process through including several pertinent elements of both a learner's existing conception and motivation to learn, such as strength, coherence, commitment and dissatisfaction, social context, personal relevance and need for cognition. Similarly, adding a quality of compelling rhetoric to the more traditional comprehensibility, plausibility, and coherence qualities of the message, the model seems to take into account the complexity of the process in a good way. (Dole & Sinatra 1998, 118-125.)

Duit and Treagust (2003) argue that the monistic views of conceptual change have failed to do justice to the complexity of the phenomenon and thus a merger of different approaches is needed. Structure and nature of intuitive knowledge, nature of change, socio-cultural environment, nature of conceptions, domain-specificity, intentionality, and conditions for change all seem to be important to the understanding of conceptual change. Tyson et al (1997) argue that conceptual change should not be viewed only from one perspective, whether from the ontological, epistemological or any other perspective. Tyson et al (ibid.) describe conceptual change as a dynamic process in which changes may happen in different dimensions. They propose a multidimensional framework, in which multiple lenses are used to accommodate for the different kinds of changes and factors influencing the change (figure 2).

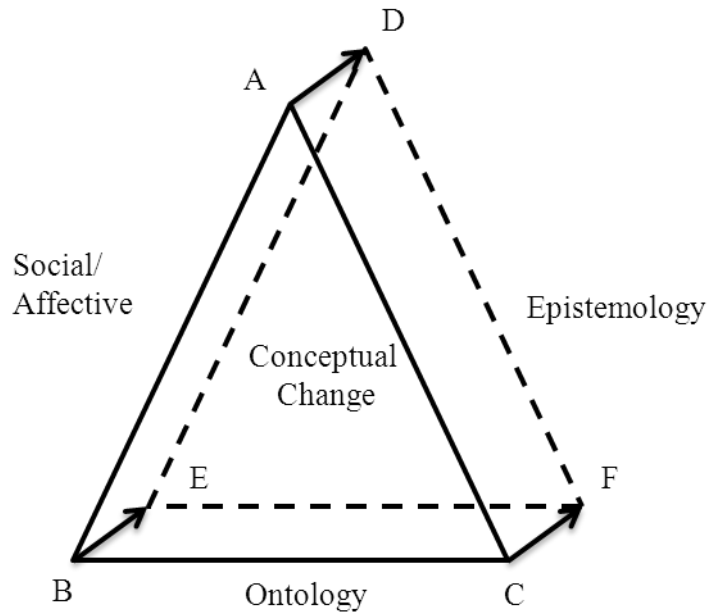


Figure 2. *Multidimensional framework of conceptual change* (Derived and modified from Tyson et al 1997, 397-398)

In the figure above, the triangle ABC in the front represents a student's pre-instructional conception, and the dotted-line triangle DEF in the background the new changed conception. The arrow, and the short lines AD, BE, and CF represent the process and the direction of change. The sides of the triangle represent the ontological, epistemological, and social/affective changes and the factors, which influence the process, as well as the perspectives through which the process is examined. Thus side ABED represents the social/affective perspective, while side ACFD represents the epistemological perspective, and finally side BCFE represents the ontological perspective.

The inclusion of, and the additional emphasis given to the position of socio-cultural context in learning, is in line with the phenomenographic perspective. As phenomenography emphasizes the unity of the learner and the world as the constitutive elements of learning and experience, it becomes impossible to separate learning from the physical and mental cultural contexts it takes place in. Furthermore, the context serves an important role in the presentation of discernment creating variation. Naturally, phenomenography, with its non-dualist ontology, goes a step

further in its integration of the learner and the world when compared to at least some of the socio-cultural views of learning.

Cross-culturally phenomenography, with its non-dualist ontological stand, is, with regard to culture, potentially in a better position than dualistic learning theories. People live in an amphibious process in which they simultaneously modify their culture and are being modified by it. This means that people live in an intentional, constituted world in which the traditional dichotomy between subject and object as subject and environment is no longer possible (Trux 1999, 182.) According to Shweder (1990) every cultural environment exists and gains its identity in close connection with the way people construct meaning out of it. Similarly every individual's subjectivity is modified in the process in which meanings are drawn from specific cultural environments. For many ontologically dualist perspectives culture is a secondary issue, which is dealt with when attempting to penetrate the human mind and reveal its nature. Thus culture, as a separate external entity may become only a secondary contextual matter without real significance cognitively. As phenomenography recognizes the close connection between a person and his or her environment, it seems to be potentially more sensitive to the cultural influences and variations.

In phenomenography, contextual issues are considered part of the thematic fields surrounding the theme. In other words, they form the immediate context for focal awareness, and a person is aware of them, although they are not focused upon. Context is also important through relevance structure, because contextual characteristics potentially influence a person's judgment of what is considered relevant or irrelevant. In addition, context influences learning through a teacher, as he or she determines what the critical educational aspects specified by the intended goal of teaching are (Linder & Marshall 2003, 273-275.) Culture is a natural part of all aspects of learning, because experience as a relation between a person and the world takes place in space and time. Similarly, the experiencing person as an aggregate of experiences, all experienced in a culture, is a cultural creature. Therefore, a person's cultural past is present in a learning situation through diachronic simultaneity. Culture

is inescapably present because learning is understood as experience, not as a kind of evolutionary abstraction or a construction of a mind that is separated from the world.

3.1.1 Prior Knowledge

It has been noted that students do not change their conceptions easily. Especially in domains like physics and biology, in which intuitive knowledge often differs quite extensively from scientific knowledge, conceptual change is often slow. Intuitive knowledge that has taken quite long to develop seems to form a logical enough explanation of the world. Consequently, it presents robust resistance to change especially as it is in a way continually confirmed in everyday experiences (Hakkarainen, Lonka & Lipponen 1999, 89-107.)

Overall, prior knowledge plays, naturally, an important role in conceptual change. It is self-evident that students do not come to a learning situation with an empty head; or to put it in another way, learning in school is not from “nothing to something” but from “something to something” (Marton & Pang 2008). Evolution has prepared humans with a capability to learn efficiently. Equipped with this ability, from a very young age, children start to formulate personal understanding of the surrounding world. (Vosniadou 2003.)

The nature of prior knowledge has drawn much interest in conceptual change studies. Especially prominent are “theory theory” (Vosniadou, Vamvakoussi & Skopeliti 2008, 3-34), and “knowledge in pieces” theory (diSessa 1993; 2002). According to “theory theory,” people develop a domain-specific explanatory conceptual system, a kind of framework theory. This framework theory consists of basic ontological and epistemological presuppositions and serves as a constraint to the knowledge acquisition process. This naïve framework theory is narrow and does not have the systematicity, abstractness, and social/institutional nature of a scientific theory but is still considered to be relatively coherent. Within the constraints of this framework theory, children create a specific theory from the gathered information to explain experienced phenomena. A specific theory is a group of beliefs describing properties

or function of a physical object. On the basis of the framework theory and specific theories children create mental models, situational representations that can be manipulated to provide causal explanations and make predictions about phenomena. (Vosniadou et al 2008.) This means that conceptual change is not only appropriation of new knowledge, but also a process of unlearning and restructuring of intuitive knowledge to a scientific or otherwise approved form.

In contrast, diSessa's (1993) "knowledge in pieces" or fragmentary theory argues that prior knowledge exists in a fragmented manner without a coherent theory. Although the entire knowledge system is large and complex, the actual knowledge structures are small phenomenological primitives, or p-prims. These p-prims form schemata through which an individual understands the world. In learning, the p-prims' function changes so that they cease to be isolated self-explanatory entities and develop into parts of a larger knowledge system.

Together with prior knowledge, conceptual change research in general emphasizes the domain-specific nature of knowledge and knowledge acquisition. The domain general theories of learning concentrate on principles that are characteristic of all aspects of learning. Domain specific conceptual change on the other hand argues that "at least some human conceptual abilities are specialized for some types of contents" (Gopnik & Wellman 1994, 257) and thus the theory focuses on the content and structure of knowledge (Vosniadou, et al 2008, 15-16). Hirschfeld and Gelman (1994) trace the root of domain specificity to Chomsky's theory of language. According to Chomsky (in Hirschfeld & Gelman 1994, 6-8), the mind consists of separate systems which each have their own properties. These properties are domain specific and a general learning mechanism cannot explain language development. Consequently, domain may be defined as "a body of knowledge that identifies and interprets a class of phenomena assumed to share certain properties and to be of a distinct and general type" (Hirschfeld & Gelman 1994, 21). According to Vosniadou (2008, 16) four domains of thought have been identified so far; physics, psychology, mathematics, and language.

A particular domain of knowledge has some specific core principles that separate it from other domains and also constraints that facilitate knowledge acquisition and

consequent changes in the theory (see Hirschfeld & Gelman 1994, 21-26; Carey & Spelke 1994, 169-171). The competence of different persons seems to vary between domains and is higher on domains in which a person expresses better knowledge both quantitatively and qualitatively. Due to the domain-specific constraints that facilitate learning, learning is considered to be unique to each domain. These constraints may be innate, learned, socio-cultural and so on. Conceptual change theory in general does not take a definite stance towards any specific kind of understanding of these domain-specific constraints (Vosniadou 2007b). However, despite of this emphasis on domain-specificity, it is acknowledged that domains may share small pieces of knowledge and interdomain knowledge transfer is possible (Hatano & Inagaki 2000, 269).

In phenomenography, the cognitive structure of a person's knowledge is not of interest. Due to phenomenography's philosophical stand, memory as a whole or how experience is organized in a person's memory is beyond phenomenographic interest. As Marton and Pang (2008, 542-543) admit, memory-related questions are a reasonable inquiry, but not to the area that phenomenography concentrates on. Phenomenography concentrates on the anatomy of the experience itself, not on the anatomy of mind or knowledge underlying the experience. In addition, Marton and Booth (1997) argue that phenomenographic description of experience is on the autonomous level; it describes how the world appears to a person, and as such cannot be reduced to other levels of description (Marton & Booth 1997, 114).

Phenomenography considers a human being as an aggregate of all experiences one has had during his or her life. These experiences form the knowledge with which a person enters the process of conceptual change, i.e., experiencing something in a new way. Prior knowledge thus forms the starting point for a person. In order to experience something in a new way, a person acts on his or her prior knowledge and through experiencing a necessary variation his or her focal awareness changes.

3.1.2 What Changes in the Process?

Concepts, or conceptions, are fundamental for intentional conceptual change because regardless of the way the terms are defined, they represent that specific something that changes in the process. As diSessa and Sherin (1998) argue, the importance of the question, “what changes?” should not be underestimated. However, determination of this has proven to be somewhat challenging. There is a variety of definition of concepts, and to a certain extent a particular definition of concept is specific to a particular theory of conceptual change. In addition, there is some terminological diversity. In conceptual change literature, both terms “concept” and “conception” are used, often interchangeably. If differentiated by definition, concept seems to be a more generic term and refers to a more elementary cognitive construct while conception refers to an individually held more complex cognitive construct. In addition, White (1994) separates conceptual and conceptional change from each other. This separation is based on his view of concepts as means for classification and repositories of knowledge and conceptions as more complex systems of explication.

Research on concepts has produced a number of different definitions of what concepts specifically are: the classical or typicality theory (Laurence & Margolis 2000; Magnusson, Templin & Boyle 1997; diSessa & Sherin 1998), probabilistic theories including both prototype and exemplar theories (Laurence & Margolis 2000; Smith & Medin 2000; Medin 1989; diSessa & Sherin 1998), theory-based models (Laurence & Margolis 2000; Medin 1989; diSessa & Sherin 1998), neo-classical theory (Laurence & Margolis 2000), actional theory (Magnusson et al 1997), and relational theories (Magnusson et al 1997; diSessa 1998; Ferrari & Elik 2003). It seems that the number of theories reflects the difficulty of defining and deciding conclusively what concepts are.

Laurence and Margolis (2000) define concepts are “subpropositional mental representations” (2000, 4) of an object. In other words, concepts are neither the most atomic, primitive conceptual elements nor the larger propositions expressing complete thoughts, but something in between. As also suggested by this definition, concepts do not exist or function in isolation but in interrelated networks forming a complex

cognitive structure. They are abstract objects outside time and space (Crane 1998; Ferrari & Elik 2003). Consequently, conceptions are considered “learner’s internal representations constructed from the external representation of entities” constructed and presented by teachers, textbooks, etc. (Treagust & Duit 2008, 298). Concepts are essential to thinking as they enable classification of information and knowledge, understanding and explanation of phenomena, prediction and planning for future events, making of meaningful deductions, and formulation of more complex concepts. Rey (1998, 159) draws an analogy between words and concepts by calling concepts “constituents of a thought,” rather similar to how individual words constitute sentences that present propositions. Although concepts are mental entities they are not only that. They are also social entities in the sense that they are shared between people and are therefore essential elements of communication and originate partially outside the human mind (Rey 1998, 159; diSessa & Sherin 1998). Concepts thus have both internal and external components that have a role in psychological explanation and social application respectively (Rey 1998, 159-160.)

Ferrari and Elik (2003) utilize Popper’s (1975) trichotomy in their definition of concepts. Popper (ibid.) divided the existing phenomena into three worlds. World number one consists of physical objects, while world number two consists of mental states. Finally, Popper’s world number three consists, for example, of arguments and theories as collective entities that are present in, but not dependent of, world two, and physical objects such as letters because they have such non-physical characteristics as value and meaning. This world number three consists of objective contents of human thoughts (Popper 1975; see also Niiniluoto 1990, 14-42) Consequently, Ferrari and Elik (2000, 29) define intentional conceptual change as “deliberate attempts to understand the intentional objects (i.e. concepts) that belong to Popper’s ‘World 3’”.

All the above-described definitions reflect a cognitive-constructive approach to conceptual change, and consequently define concepts as mental representations. This is a rather prevalent view and enjoys such wide support that Vosniadou (1999, 10-11) claims that the construct of mental representations should be accepted as a proven fact, as there is no basis for the opposing view. Regardless of the wide support, the above-described understanding has also been challenged. Some regard concepts as

abilities and others as abstract universals in line with Fregean senses as the summary by Margolis and Laurence (2007, 2011) demonstrates. Kuusinen and Korhonen (1995, 53) take a more considerate approach and admit that it is problematic to state anything precise about the structure and organization of mental schemas, because they are open, overlapping, permeable, and incomplete by nature and form a web-like, hierarchical structure.

Ivarsson, Schoultz and Säljö's (2002) socio-cultural approach differs quite drastically from the other views presented. From the socio-cultural perspective, people do not think, reason or learn in a vacuum but in such a close connection with the socio-cultural environment that approaching conceptual change as a purely mental process does not do justice to the nature of the phenomenon. From the socio-cultural perspective, concepts are not mental but social entities, tools that people use in everyday life – such as language – in different forms of social discourses. Concepts are two-way mediators in the sense that through concepts and conceptual categories people experience and interpret objects and phenomena in the world for themselves, but through concepts people also act in the outside world. (Säljö 2001.) Concepts are fundamental to all cognitive activity, but they are not considered to be purely mental entities. Concepts are about content and meaning which are communicative phenomena (Säljö 2001, 19).

Concepts are also social entities that people use when they do things in everyday life as exemplified by the use of language in different forms of discourses. Consequently, conceptual development is not a private mental enterprise but concepts are socio-cultural products and this socio-cultural nature of concepts directs individual perception and understanding. Seeing a boat as a boat depends on the given socio-cultural conceptual categorization. Concepts are two-way mediators in the sense that through concepts and conceptual categories people experience and interpret objects and phenomena in the world for themselves, but through concepts people also act in the outside world. People use concepts in communication and thinking. Thinking is a kind of silent personal dialogue in which a person uses socially developed conceptual resources for their reasoning. Thus thinking is not a private phenomenon but a socio-historically produced and supported action. The socio-cultural emphasis extends also

to physical artifacts. For example, calculators are not just machines; they are also loaded with conceptual constructions people use for making calculations. Consequently, conceptual change should not be studied separately from a person's general socio-cultural or particular situation (Ivarsson et al 2002, 78-99.)

In phenomenography, experience occupies a rather pivotal position in the conception of learning. Experience is used in slightly different senses in phenomenographic literature. First, it may refer to learning in general. Second, experience may refer ontologically to a person's life-long, continuous, dynamic state, defined as an internal person-world relationship. A person is thus an aggregate of individual experiences and experience is described in terms of organization of awareness at a given time (Marton & Booth 1997, 100). Third, in reference to a particular case of learning, experience denotes to a singular, specific, spatial, and temporal encounter in which a person becomes capable of discerning something in a new way. More pointedly in considering conceptual change, phenomenography describes conceptions as experience.

Marton and Booth (1997) argue that thinking and conceptions should be considered as experience; an experience of having something present in our thoughts although not present to our senses. Thus the phenomenographic view of conceptions challenges and rejects the cognitive constructivist view of conceptions. In phenomenography conception corresponds to ways of seeing, understanding, or experiencing the view that stems from the phenomenography's non-dualist ontological stance. Acceptance of mental representation creates a representational world separate from the experienced world. Marton and Booth (ibid.) argue that considering thinking in terms of conceptions as mental representations is not substantiated by our experiential reality, as people do not experience conceptions. Consequently, conceptions as mental representations are inferred and assumed and are therefore a hypothetical construction and as such not necessary for understanding learning. Furthermore, Marton and Booth (1997, 8-10) argue that the system of internal mental representation creates the need for homunculus ad infinitum, without solving the fundamental problem of knowledge or learning. This kind of rather emphatic rejection is possible because Marton and

Pang (2008) exclude memory beyond the interest of phenomenographic research interest.

In its analysis of experience, phenomenography utilizes Husserl's anatomy of mental processes. As in phenomenology, noesis and noema form the act of thinking and what is thought, so in phenomenography, experience has correlative referential and structural aspects (figure 3). In order to experience something as something a person must be able to discern that something from its surrounding context, and also the specific features of that something within it. Thus the phenomenon and background become distinguished as well as the specific features of the phenomenon. These refer to the structural aspect of experience and to its external and internal horizons respectively. Secondly, that something must also be identified as something specific. This refers to the referential or meaning aspect of experience. (Marton & Booth 1997.) The meaning of something is neither the quality of the object nor possessed by the one who experiences it, but is relationally constituted by both, as the person's awareness is directed toward the object (Runesson 2006, 400). (The external and internal horizons will be explained in more detail in the awareness section below).

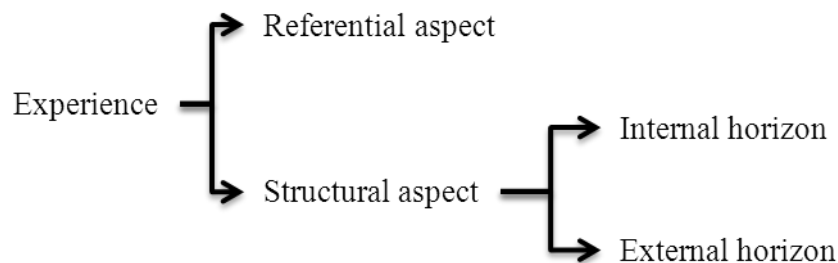


Figure 3. *Phenomenographic anatomy of experience* (Marton & Booth 1997, 88)

The phenomenographic view of experience also includes the Husserlian conception of appresentation, which Husserl uses in his explication of a person's experience of another person. In a person's experience of another, there is always an apprehended gap as the other person is given to another only through appresentation. However, the experience of another is at the same time an inextricable part of person's consciousness. The solution is that although the other person is not presented "fully," he or she is still grasped in the person's "own ness" (Moran 2000, 175-177). Analogically, Marton and Booth (1997) distinguish two modes of experiential

presence. First, in experiencing something, a person experiences the phenomenon simply as it appears to him or her. Second, other aspects of the phenomenon are appresented, although these aspects are not present in the actual sensuous experience. Thus the object is represented rather than being directly and fully present. Consequently, in experiencing something, people do not experience parts of something, but a phenomenon as a whole (Marton & Booth 1997, 99-100).

In general, learning in a phenomenographic sense means that the internal relationship between person and world changes. It is an improved capability to experience a phenomenon in a new way in addition to the ways the person has been capable of experiencing the same phenomenon before (Marton & Booth 1997, 115). Learning should not be viewed quantitatively as an either-or type of phenomenon, but as a qualitative change in our understanding of the surrounding world (Marton, Dahlgren, Svensson & Säljö 1980). Learning is powered by the learner's personal relevance structure that provides to the learner a motivationally enhancing organized analysis of a particular learning situation. Because phenomenography defines experience as an internal person-world relationship, learning results in a change in the relationship between the person and the phenomenon. This changed ability to experience a phenomenon in a new way is based on a learner's new capability to discern new aspects of that particular phenomenon as the learner's awareness is restructured. In other words, the learner is capable of being concurrently and focally aware of new aspects of the particular phenomenon in a new way (Marton & Booth 1997, 142.) The assumption is that the new way of experiencing becomes a dominant and directive way, and does not recede to memory as a potential possibility.

Awareness is yet another key term to be considered, as awareness is what changes in the process. To experience something in a new way means to be aware of that something in a new way. Marton and Booth (1997, 108) define a person's awareness as "the world as experienced by the person." Phenomenographic understanding of awareness resembles closely Niiniluoto's (1990) formulation of mind. Niiniluoto (ibid.) first separates consciousness from unconscious neural life of which a person has no experience. He then divides consciousness into two: conscious and unconscious. The conscious part consists of those mental states and activities a person

is aware of at a point in time, while the unconscious part refers to the hidden or rejected states that might still affect the person's cognition although they are not actively in their consciousness. (Niiniluoto 1990, 132-133.)

Awareness in the phenomenographic sense is not a pole in the awareness-unawareness polarization. A person is aware of everything at all times. However, a person's awareness focuses on some aspects of a phenomenon while others remain unfocused, resulting in a kind of figure-ground structure (Marton 1997, 98). This figure-ground distinction is essential to learning, because different meanings or ways of experiencing a phenomenon correspond to different figure-ground patterns in a person's focal awareness (Marton & Trigwell 2000, 386). Awareness describes the person and the world, because awareness is the totality of a person's relatedness to the world including all their past and present experiences. Thus phenomenography builds on what Tulvin calls the consciousness' anoetic, noetic, and auto-noetic abilities (Tulvin 1985, 1-3). Awareness is not a mental storage where all experiences as mental representations are stored, but a dynamic continually changing process, the totality of all constitutive acts that are going on all the time. Awareness refers to the totality of a person's relatedness to the world, as people are aware of everything all the time though in varying degrees. (Marton & Booth 1997, 163-164.) In being aware of all things all the time, a vast number of experiences are present in one's awareness as backgrounds to those experiences that attract a person's active or focal awareness at any given time (Marton, Runesson & Tsui 2004, 19).

In her conceptualization of awareness, phenomenography utilizes and modifies Gurwitsch's (1982, 4) model of the structure of awareness in order to make the varying degrees of awareness visible. According to Gurwitsch (*ibid.*), consciousness consists of three domains: theme, thematic field, and margin. In this division, theme refers to those things that occupy the focus of a person's attention when he or she experiences something at any given point of time. Thematic field, on the other hand, forms the immediate context for the theme, and consists of data that are experienced as relevant to the theme, but not as the object of primary focus, thus forming the background out of which the theme emerges. The outer part, i.e. margin, refers to the rest of the issues that exist at the time of experience and of which the experiencing

person is aware, but which are not relevant to the theme. (Gurwitsch 1982.) The structure of awareness remains the same although its specific form or content changes according to what the experiencing person is focusing on (Uljens 1992, 98).

Marton and Booth (1997, 99) modify Gurwitsch’s (1982) model by introducing internal and external horizons instead of theme, thematic field, and margin (figure 4). The term internal horizon corresponds with Gurwitsch’s term, theme, and consists of the phenomenon experienced as a whole, including its contours, parts, and the parts’ relationship to each other and to the whole. External horizon, on the other hand, corresponds with Gurwitsch’s thematic field and margin. Instead of thematic field and margin, Marton and Booth (1997, 99) prefer the term “constituent thematic fields”. According to Marton and Booth (ibid.), the designation of multiple constituent thematic fields provides a better reflection of the multilayered and multidimensional nature of the relevant issues related to the particular theme compared to Gurwitsch’s single thematic field. These constituent thematic fields consist of the surrounding context of the phenomenon, including everything that the experiencer is aware of, extending from the boundary of the experience and continuing indefinitely. (Marton & Booth 1997, 99.)

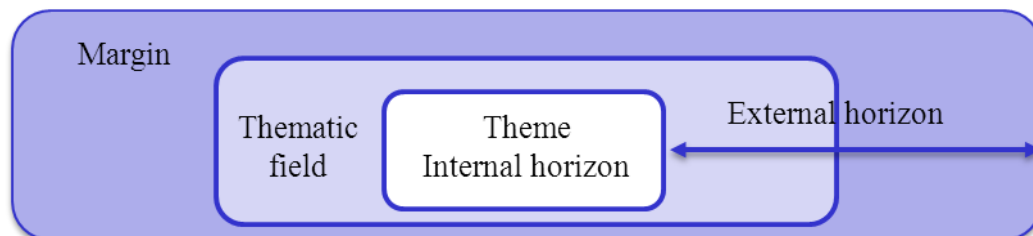


Figure 4. *Phenomenographic Understanding of the Structure of awareness* (Roisko 2007, 58).

Awareness is directly linked to learning, as learning results in a new ability to be concurrently and focally aware of other aspects or more aspects of the phenomenon at hand than before (Marton & Booth 1997, 142). In learning, the aspects of the phenomenon that comprise the internal horizon as the object of focal awareness change. The aspects may, for example, increase or decrease, become more specific, or their relationship to each other or to the whole may change, or the change may be any

combination of different types of changes, but the result is a change in the capacity to be aware of the phenomenon.

In light of the above discussion, what changes in conceptual change is the way people experience or understand a phenomenon, and specifically leadership in this research. A person's awareness is modified through increased experience of variation in the aspects of the phenomenon. In other words, the learner's capability to experience a phenomenon changes during the process (Marton & Pang 2008, 541-543). The terms conception, experience, understand, and see are used interchangeably if not indicated otherwise. From a phenomenographic point of view Kuhn's (1970, 111) comment on what changes is interesting. Kuhn (ibid.) states initially "examining the record of past research from the vantage of contemporary historiography, the historian of science may be tempted to exclaim that when paradigms change, the world itself changes with them." Refuting this idea by the fact that the world actually continues to exist just as it did before the paradigm change, he specifies the change, "Nevertheless, paradigm changes do cause scientists to see the world of their research-engagement differently." Thus Kuhn (1970) seems to be close to the phenomenographic standing of conceptual change in which the world-as-experienced changes although the world-as-not-experienced remains the same.

3.1.3 The Nature and Process of Change

The pioneering epistemological work of Posner, Strike, Hewson and Gertzog (1982) draws attention particularly to the rationality of, and the conditions for, conceptual change. They presented conceptual change as a switch between two mutually incompatible, distinctive, more or less equally well-structured systems of conceptions. Reacting against the additive nature of learning, Posner et al (ibid.) explained conceptual change as accommodation, a large-scale major conceptual revision (Posner et al 1982, 215) in contrast to assimilation, which refers to learning where the existing concepts are used to deal with new phenomena without a need for conceptual revision. They described conceptual change as interplay between a person's current cognitive resources and the conditions for accommodation. First, a person's existing

framework of knowledge should be made explicit in order to design an instructional approach that creates dissatisfaction, which needs to be solved. A person's conceptual ecology, or cognitive resources, serves as a mediator in the process and determines the direction of learning. Strike and Posner (1985) recognized seven kinds of resources: anomalies, analogies and metaphors, exemplars and images, past experience, epistemological commitments, metaphysical beliefs, and concepts and other knowledge. In order for the person to accommodate the new conception, the following four conditions had to be met: dissatisfaction with the person's existing conceptions, at least minimal understanding of the new concept, plausibility of the new concept, and possibility of fruitfulness. Although the model has been blamed for its seemingly exclusively rational nature, the linear function of the conditions for change, and the implied revolutionary shift between the old and new conceptions, it has served as the basis for further development of conceptual change and its features are still discernible in the current theories.

According to Hewson (1992), the word change may imply three different kinds of states or processes: extinction, exchange, or extension. These refer, respectively, to the complete disappearance of the previous state, a switch between two entities without extinction of neither one, and to a combination of two entities to form a new one. All these different nuances of change are detectable in the various descriptions of conceptual change. Vosniadou's (1994, 48-49) older division of conceptual change into enrichment, revision of a specific theory, and revision of a framework theory follows a trichotomous structure quite typical for various theories. Enrichment is the simplest form of conceptual change and refers to modification of knowledge by addition of new information to the existing knowledge or theoretical framework. Revision of a specific theory refers to changes in a person's beliefs or presuppositions or relations between concepts. The most difficult type of conceptual change is the revision of framework theory. In this case the new information contradicts a person's existing framework theory of knowledge and a change simply by addition or within a specific domain is not possible. (Vosniadou 2007b; Vosniadou et al. 2008.) Many of the researchers agree that conceptual change does not necessarily lead to the extinction type of change, as proposed by the pioneering works (e.g. Pozo, Gómez & Sanz 1999).

Conceptual change research has attempted to define the type of changes that can be classified as conceptual changes. The actual conceptual changes in an individual's knowledge vary from minor modifications in a single concept to major revisions in conceptual relations or in a complex conceptual cognitive structure. However, not all accept any kind of changes as conceptual change per se. Thagard (2008) represents perhaps the most inclusive view of conceptual change. He (ibid.) identifies nine different types of conceptual change that range from adding a new instance of a concept to the change in the organizing principle of a hierarchical tree of conceptions (Thagard 2008, 374-375). Some researchers take conceptual change as a technical term in a more restricted sense, descriptive of only the major changes. For example, Carey (1991) limits conceptual change to the creation of a new ontological category, a switch from one ontological category to another, and to differentiation or coalescence of concepts. Chi and Roscoe (2002) take a rather similar view and identify conceptual change as the re-categorization of misconceptions from an inappropriate category to the right one. In contrast to misconceptions, preconceptions are rather easily refuted on a single propositional level by the provision of right information. Misconceptions, on the other hand, belong to a larger complex set of interrelated propositions that require more time and more extensive correction for a change to take place.

According to Vosniadou, Ioannides, Dimitrakopoulou and Papademetriou (2001), in the polarization of non-conceptual – conceptual change, learning in the non-conceptual change sense reflects the Kuhnian sense of normal science. The most common science learning operates within a person's existing conceptual framework in terms of enrichment and improvement. Persons form intuitive knowledge structures on the basis of personal concrete experiences, and these structures become more general, abstract, and more widely applicable as teachers provide new experiences (ibid., 383.) Learning as conceptual change, however, views learning more in the Kuhnian revolutionary sense (Vosniadou & Verschaffel 2004). Vosniadou and Verschaffel (ibid.) see learning as conceptual change referring to the type of learning in which the new information creates a conflict with the existing prior knowledge, and in order to accommodate the new conception, a reorganization of knowledge is necessary (Vosniadou & Verschaffel 2004, 445). Thus learning results in a kind of paradigmatic change. The additive and improvement type of learning is actually

considered a hindrance to conceptual change, because the domain specific conceptual framework is not based on, and in line with, scientific knowledge. Consequently, the additions or minor modifications tend to strengthen the students' existing faulty conceptual framework. As the framework is not challenged, the required conceptual change becomes even more difficult to achieve (Vosniadou 2007a).

Inagaki and Hatano (2008), looking at the change from the perspective of knowledge systems, identify four types of changes. In the first type, an old theory changes to a new one and the old disappears. In the second type, the old produces a new theory, but the old one continues to exist, although with decreased salience. In the third type, the old one produces a new theory that belongs to a different domain and the two continue to develop separately in their respective domains. In the fourth type, the new theory is formulated through integration of two old theories (Inagaki & Hatano 2008, 241.) Historically, as Tyson et al (1997) point out, the theories of conceptual change, Thagaard (1993) included, have identified two levels of changes: firstly, a simple addition of knowledge; and secondly, changes in conceptual structure. The latter is further divided into two parts: weak and strong restructuring (Tyson et al. 1997, 388-391).

Chi (2008) emphasizes that for a change in conception or conceptual model to be classified as a conceptual change in the technical sense, the conception must be robust. Robust refers to the persistence and resistance of the misconceptions. The misconceptions are robust, because the person has classified the conception in question in an inappropriate ontological category. Thus a simple belief change or a change in a mental model is not sufficient for learning to happen, as in these forms of change, the conception retains its basic ontological classification. (Chi 2008, 61-82.) This robustness is one of the reasons why the current theories view conceptual change as a slow process in which the existing naïve knowledge is gradually transformed into canonical knowledge (Vosniadou 2003; Vosniadou et al. 2008).

Due to the experienced inadequacy of the traditional model to explain all the necessary conditions for successful conceptual change, research has recognized additional conditions enhancing conceptual change. For example, Chi and Roscoe

(2002) emphasize understanding of the new ontological category to which the concept should be assigned. Intentional conceptual change studies in general recognize the importance of metacognition, self-regulation, and motivation (Sinatra & Pintrich 2003), while Vosniadou (2001) emphasizes metaconceptual awareness and Vosniadou and Ioannides (1998) call attention to the social and cultural aspects of learning. Furthermore, Ivarsson, Schoultz and Säljö (2002) draw attention to the importance of methodology of instruction and the use of tools. This listing is far from complete as its purpose is only to point to the vast array and complexity of conditions surrounding optimal conceptual change. The following table (table 2) provides a short summary of the theories of conceptual change by displaying the differences between the major components.

Table 2. Summary of the theories of conceptual change (Mayer 2002, 108)

View	What is conceptual change?	What changes?	Who changes?	How does the change occur?	Where does the change occur?	The main role of prior knowledge
Vosniadou's synthetic model	Change as synthesis	Mental model (from incoherent to coherent)	Learners as synthesizers	Gradual: adding new information from instruction and reorganizing conflicting representations into a scientific theory	Mind	Obstacle and vehicle for change
Chi & Roscoe's misconception repair	Change as replacement	Mental model (from flawed to correct)	Learners as fixers	Gradual: repairing incorrect conceptions	Mind	Obstacle for change
diSessa's knowledge in pieces	Change as organizing	Knowledge (from unstructured to structured)	Learners as organizers	Gradual: organizing p-prims	Mind	Vehicle for change
Ivarsson et al's sociocultural view	Change as tool appropriation	Tool use (from ineffective to effective)	Learners as tool users	Gradual: appropriating and mastering mediated means through participation in cultural practices	Society	Neither
Marton phenomenography	Change as new experience	Ways to experience	Learner-World relation	Gradual	Awareness	Vehicle for change

Conceptual change is considered challenging for various reasons. First, concepts do not develop in isolation but in complex interaction with other concepts and a change requires fundamental restructuring of knowledge (Wiser & Smith 2008, 206 – 208). Second, the scientific concepts might be incommensurable with a student's current understanding, i.e. the student's prior knowledge does not provide the required conceptual tools to handle the new information (Vosniadou, Vamvakoussi & Skopeliti 2008, 4). Third, a student may not be aware of his or her misconceptions. Fourth, the conceptions may simply be difficult to comprehend. Fifth, the challenge may also lie in the instruction that does not facilitate conceptual change on a required level (Treagust & Duit 2008, 300). Finally, the problem might not be purely cognitive but metacognitive or motivational (Sinatra & Pintrich 2003, 2).

The conceptual change research evidence supports the idea that conceptual change is normally a slow process (Vosniadou 2003, 377). However, Vosniadou (2008, xvi) admits that rapid changes may happen although she does not consider this as the usual way. One factor for this could be the age of the learners. Discussing children's learning, Vosniadou (2007b, 50) associates the slowness of the process of change to the learners who lack metaconceptual awareness of their beliefs and the change process. Thus, it seems plausible to assume that adult learners equipped with the required metaconceptual skills could experience conceptual change more rapidly. In addition, Treagust and Duit (2008, 319) see the rapidity of the change depending on the instructional strategies used and the nature of the content to be learned. This suggests that rapid conceptual change might be possible at least in some domains of knowledge.

The challenges of conceptual change described above seem to be present especially in formal educational settings. This does not mean that the formal instructional setting would be the only context for conceptual change, although it is perhaps the most typical one. Vosniadou et al (2008) as well as Inagaki and Hatano (2008) identify two types of mechanisms of change: a spontaneous bottom-up, or a spontaneous learning mechanism, and a top-down or instruction induced, purposeful and intentional change mechanism. The difference between the two is that the second one is a result of

systematic instruction while the first one takes place outside the educational context. Spontaneous change is possible because a person's environment may provide the needed information and cause conceptual change without an educational setting. In practice, the difference is not always so clear, because the instruction provided in school, although not causing conceptual change immediately, may influence a person's conceptual development later (Inagaki & Hatano 2008, 242.)

From a socio-cultural perspective, conceptual change is required in school because school is the place where people come in contact with specific scientific language, communication, and reasoning. This scientific language, and its nature as an intellectual tool, differs considerably from the everyday language people are used to. Learning to use these intellectual tools properly is considered a complex process. This also modifies the definition of change in the socio-cultural perspective. Cognitive development and conceptual change is understood as the increased appropriation and mastery of physical and intellectual tools. Thus conceptual change is not predominantly a change in one's mental models or cognitive structures. Ivarsson et al (2002) separate appropriation and mastery from each other. Appropriation means the individual gradually familiarizes himself with a set of conceptual tools and thus realizes how they are used. As a result an individual is able to reason and act in situations by means of a certain conceptual tool. Mastery on the one hand means that people learn, i.e. understand, and are thus able to reproduce and explain, something. However, on the other hand, mastery does not include appropriating the learned concept outside the specific learning situation. (Ivarsson et al 2002, 78-99.) The following summary (table 3) displays the major theorists and their views regarding the levels of changes.

Table 3. Views of the levels of changes of conceptual change (Tyson, Venville, Harrison & Treagust 1997, 390 and Entwistle 1981, 87-107)

Degree of Conceptual Change		Theorists									
		Posner et al Posner & Strike	Hewson & Hewson	Carey	Vosniadou	Thagaard	Chi et al	White	Entwistle		
Addition	Accretion			Knowledge accumulation that does not involve restructuring	Enrichment	Belief revision -add instance -add weak rule -add strong rule	No change in ontological membership of a concept	Addition	Surface: -Increase of knowledge -Memorization		
Weak Revision	Assimilation		Conceptual Capture	Weak restructuring	Revision at the level of specific theory	-add partial relation -add kind relation -add new concept	A concept's membership is shifted across parallel categories within a major ontological tree	Conceptual change: change in the knowledge a person associates with a concept	Surface: -Utilization of facts Deep: Understanding		
Strong Revision	Accommodation		Conceptual Exchange	Strong restructuring	Revision at the level of framework theory	-branch jumping -tree switching	A concept's membership shifts from a ontological tree to another	Conceptual change: Conceptions are systems of explanation	Deep: -Transformation -Personal change		

There does not seem to be a specific phenomenographic categorization of what kinds of changes constitute a conceptual change. In phenomenography, conceptual change is defined as a change in the learner's awareness, capability to experience the world, and the world experienced. This means that different kinds of changes can be counted as conceptual changes. Naturally, changes in the ways of experiencing may vary from minor incremental types of change all the way to major revolutions in which the elements of the experienced phenomenon in the focal awareness have changed. Phenomenography's ontological stand and the consequent rejection of the separate cognitive world of conceptions as mental representations exclude cognitive structures from being of interest for phenomenographic research.

The possibility of conceptual change is approached in phenomenography through two perception-related conceptions: variation and discernment. Due to their close affinity, their discussion together seems logically expedient. Variation refers to a change in a phenomenon in the learner's focal awareness, whereas discernment refers to the learner's experience of this change, experiencing something in a new way (Marton & Trigwell 2000). Learning is a process of more focalized and increased discrimination. Thus variation corresponds to what Säljö (1999, 81) refers to as development of expertise as a person's ability to utilize conceptual resources increases. It proceeds from an indistinct and undifferentiated whole to differentiated and cohesive construction of organized parts (Marton & Booth 1997, 138).

Variation is the main mechanism for learning (Marton & Booth 1997, 145). It is essential to learning, because learning as a new way of experiencing a phenomenon requires the ability of simultaneous discernment that is not possible without variation. Discernment of change requires an experience of both, variance and invariance (Pang 2003, 150). When some aspects of a phenomenon vary and others remain invariant, the aspects that vary are experienced (Pang 2003). Discernment of variation is also needed in experiencing similarity, because in order to discern two situations as similar, a person needs an experience of variation on the basis of which the two particular instances under consideration can be recognized as similar (Marton, Runesson & Tsui 2004.)

In order to experience variation a person must be focally aware of the critical features of a phenomenon simultaneously, either diachronically (at different points of time) or synchronically (at one specific time) (Pang 2003). In diachronic simultaneity past experiences are temporally integrated with the present experience. A dimension of variation is constituted by a person synthesizing various specific values of an aspect experienced across time and carried by memory to the current situation and thus these past instances are experienced together with the new one. In synchronic simultaneity the different dimensions of variation are co-existent at the same time and can thus also be experienced simultaneously. Synchronic simultaneity is thus dependent on the diachronic simultaneity, because in order to experience the dimensions of variations synchronically, each dimension must have been experienced diachronically earlier. (Marton, Runesson & Tsui 2004, 17-20.)

In a certain learning situation, some things remain invariant while others vary. All these together form a pattern of variation that determines what a learner may learn in a specific situation. Marton, Runesson and Tsui (2004, 16) recognize four kinds of patterns of variation that serve as the conditions for learning: contrast, separation, generalization, and fusion. Firstly, contrast means that in order to discern a certain quality, its opposite quality must be experienced simultaneously. Secondly, separation refers to the fact that a dimension of variation cannot be experienced without other dimensions of variation remaining the same or varying differently. Thirdly, generalization means that in order to discern between different values of dimensions of variation, a certain value of dimension of variation must remain invariant while the other dimensions vary. Fourthly, fusion refers to the fact that a person is not able to experience simultaneity of two dimensions of variation unless one experiences the two dimensions varying simultaneously. (Marton & Pang 2006, 199-200; see also Marton, Runesson & Tsui 2004, 16.) Thus discernment does not involve only the specific cases under consideration, but requires the presence of the previous relevant cases as well (Marton & Trigwell 2000, 385).

Result wise, the improved discerned variation is not considered as transient or only a potential option for action, but a continuing sensitiveness so that a person in all likelihood interprets the future in terms of the newly discerned aspects (Marton,

Runesson & Tsui 2004, 11). As experience is the internal relationship between the subject and the world (Marton & Booth 1997, 122), this relationship has more permanence than mere potentiality.

Conceptual change takes place in a space of learning. Specifically, the space of learning is the pattern of variation present in a situation available to a person's awareness (Marton, Runesson & Tsui 2004, 21). Dimensions of variation and those that remain invariant in the given learning situation form the particular pattern of variation. A potential space for learning is created as the discerned aspects come to the fore in a person's awareness, to a person's focal awareness, and other aspects remain invariant. These dimensions of variation and invariance both constrain learning and make it possible. Dimensions of variation make learning possible as the learner may discern and consequently learn only that which varies, and at the same time learning may not go beyond of that which varies (Marton & Pang 2006, 195). Thus the space of learning in a formal learning situation is not the situation per se, but the variation and invariance of different dimensions as experienced by the learner. These are being created in the interaction between the learner, the instructor, and the other situational factors that are present in that specific situation in some way. (Runesson 2006, 403-405.)

The instructor creates the space of learning by using linguistic or practical means, such as examples and analogies, and thus organizes dimensions of variation for the learners to be discerned. On the other hand, the learner may also create this space, by observing variation in terms of diachronic simultaneity. The potential space of learning created by the instructor is actualized as the learner discerns the dimensions of variation present in the situation and assigns meaning to them. (Marton, Runesson & Tsui 2004.) Space of learning is an experiential space in the sense that through the students' actual experience the potential space of learning is actualized. It must also be emphasized that language is the key means to the space of learning. This is because in phenomenographic experience, language is not considered as representing or conveying a person's experience, but language rather constitutes experience. In other words, language and experience are understood to have a dialectic relationship. As a person experiences the variation, he or she discerns the distinctions and these are

realized in language, and this linguistic distinction in turn makes it possible for the person to discern variation. (Marton, Runesson & Tsui 2004, 26.)

Space of learning is analogous to the so-called enacted object of learning. Phenomenographic learning theory recognizes three different types of objects of learning. First, the intended object of learning refers to the goal set by teachers beforehand as the pedagogical goal of a learning situation. Secondly, the lived object of learning refers to what the students actually learned in a particular learning situation. The third object, an enacted object of learning, equals, as stated above, the space of learning and thus refers to the aggregate of potential possibilities of learning present in a given learning situation. (Marton, Runesson & Tsui 2004.) The three are analytically and practically distinguished, because it is recognized that the teacher's intentions may differ from what materializes in actuality and both of these may also differ from the possibilities present in a learning situation. It must be stressed that the space of learning is not completely an individual phenomenon. This is because the learners and instructor(s) jointly modify their understanding of the world and negotiate the meaning of phenomena and thus create a shared space of learning. (Marton, Runesson & Tsui 2004, 35.)

Regarding the motivation for conceptual change, Marton and Booth (1997, 145) identify relevance structure as the "driving force of learning." Any situation, learning situations included, has a relevance structure for those who experience it. Relevance structure provides the participants with the situation defining sense of direction, a specific aim, a framework of purpose. Experiencing something in a new way is fundamentally dependent on how a person approaches the learning situation (Marton & Booth 1997, 158) and relevance structure refers to this specific sense or perspective. The learner interprets the learning situation as a whole and its specific requirements in terms of what is relevant, and orients towards it on the basis of this interpretation. (Marton & Booth 1997, 143-144.) Relevance structure is in a sense case-specific and dynamic, as the interpretation is an a priori judgment of relevance based on the particular temporal state of awareness. It seems logical to assume that a person's interpretation of the relevance of a learning situation is subject to re-evaluation and possible change during the learning.

3.1.4 Intentionality

Chi (1992) has noted that conceptual change may refer either to the process of change or to the result of change. Although both meanings are present, the specific definitions of intentional conceptual change focus more on the process, as the inclusion of intentionality is an attempt to look for ways to enhance the process of change. Thus the end result is present as a natural consequence of the process (Limòn Luque 2003, 135).

In relation to intentional conceptual change, at least three analytically distinct meanings of intentionality can be detected. The first refers to intentionality as something done on purpose. The second meaning refers to intentionality as a philosophical concept defined as directedness and/or “aboutness” of mental acts or phenomena. Thirdly, intentionality refers to the learner’s active role in the entire learning process. These three meanings are explicated in the following.

First, researchers use words like “deliberate” (e.g., Ferrari & Elik 2003, 29) and “purposeful” (Vosniadou 2003, 379) in their definitions of intentional conceptual change. This common lexical meaning of intentionality means that it is a person’s purpose to learn something and that the resulting change is not accidental. Two clarifications should be made. Firstly, as a person’s concepts may change unintentionally, all kinds of conceptual changes should not be considered automatically as being intentional (Sinatra & Pintrich 2003, 6). Secondly, the mere fact that the purpose of a student is to learn, does not yet qualify him or her as an intentional learner, since the other qualifications explained below should be in place as well (Ruohotie 2003; Vosniadou 2003, 379).

Second, intentionality, in its philosophical sense, and specifically intrinsic intentionality as separated from derived intentionality (see Searle 1992), is present in intentional conceptual change. As stated above, intentionality in this sense refers to the aboutness of mental actions or phenomena. When someone wants, he or she wants something, or when someone presents, something is presented, thus want and presentation is about something (Brentano 1995, 88; Dennett 1996; Searle 1992),

whether this something really exists or not (Crane 2001). Concepts are intentional in that they are what a thought is about; they are the intentional objects of our thought (Ferrari & Elik 2003, 29). Thus intentionality in this sense is closely linked with the end result of the conceptual change. A learner changes his or her conception to have a qualitatively better representation of something, or what Searle (1992) calls a mind-to-world fit. Consequently, although intentionality in this sense is also a feature of (some) unconscious mental states or phenomena (Searle *ibid.*), these unconscious changes are not considered intentional conceptual changes, as they do not comply with the stated characteristics of intentional change.

Third, intentionality is used as a descriptive term in relation to a specific type of conceptual change. In intentional conceptual change, the learner's active role extends beyond the ordinary cognitive activity of construction. According to Hennessey (2003, 112), the distinctive factor of intentional learning is its "highly sophisticated level of processing" as opposed to a possibly automatic learning in other types of conceptual change. Ruohotie (2003, 267-268) emphasizes the role of motives, goals, beliefs, and emotions as influencing factors as learners monitor and modify their learning process metacognitively.

Intentionality brings a number of processes, activities, and beliefs such as, e.g. self-regulation, that in themselves are complex and difficult to define (Limòn Luque 2003, 157), to an already multifaceted concept of learning. For this reason, defining intentional conceptual change precisely and unambiguously is a challenge. Limòn Luque (2003) and Ruohotie (2003) have proposed three domain-general prerequisites for intentional conceptual change: metacognitive, volitional, and self-regulative prerequisite. Firstly, the metacognitive pre-requisite refers primarily to different kinds of metacognitive level processes and activities of awareness and evaluation especially in relation to the needed change and personal cognitive resources available for learning. Secondly, the volitional pre-requisite stands basically for the willingness to change. In order for a learner to engage into an intentional level process, the task and new conception has to be interesting, relevant, and promising enough both cognitively and motivationally. Thirdly, the self-regulative pre-requisite refers to the regulation of various processes in learning such as planning, monitoring, and evaluating one's

motivation, emotions, interest, and strategic skills, etc. This regulation includes identification, regulation, and continuous evaluation of changes and the results. Self-regulation in itself is a comprehensive concept, consisting of a number of complex processes that cover much of the learning process and seems to overlap significantly with the definitions of intentional conceptual change. (Limòn Luque 2003; Ruohotie 2003.)

The following diagram (figure 5), derived from Limòn Luque (2003, 136-164), Ruohotie (2003, 251-275; 2004, 159-179), aims to adapt the above-mentioned and other central factors introduced by intentionality to an “ordinary” learning process. As stated above, learning does not take place in a vacuum and therefore the socio-cultural context forms the large influencing framework to an individual’s learning. Limòn Luque (2003, 140) also emphasizes the contextually specific nature of intentional learning. The role of prior knowledge and skills, especially metacognitive and self-regulative skills, is essential. Only armed with them is the learner able to initiate and to carry out the entire intentional process. The learner initiates, controls, and modifies the entire process through the three pre-requisites and the factors influencing them. The three pre-requisites themselves are influenced by the learner’s epistemological and ontological beliefs about learning and the specific task at hand. Self-regulation, which includes a complex of processes and beliefs, seems to have an extensive role in intentional learning. Indeed, self-regulation touches every part of the process. For example, the metacognitive and volitional pre-requisites need self-regulation, although the influence between all three pre-requisites is in both directions. “DSK” refers to domain-specific knowledge and plays an important role in each pre-requisite. Neither the self-regulative skills nor the other domain-general pre-requisites guarantee conceptual change alone but only together with domain-specific knowledge. Without a sufficient level of domain-specific knowledge the process of change may be frustrating, because it may be too difficult to understand what should be changed and why, and therefore the existing pre-requisites remain unexploited. (Ruohotie 2003, 269; Limòn Luque 2003, 140-167.)

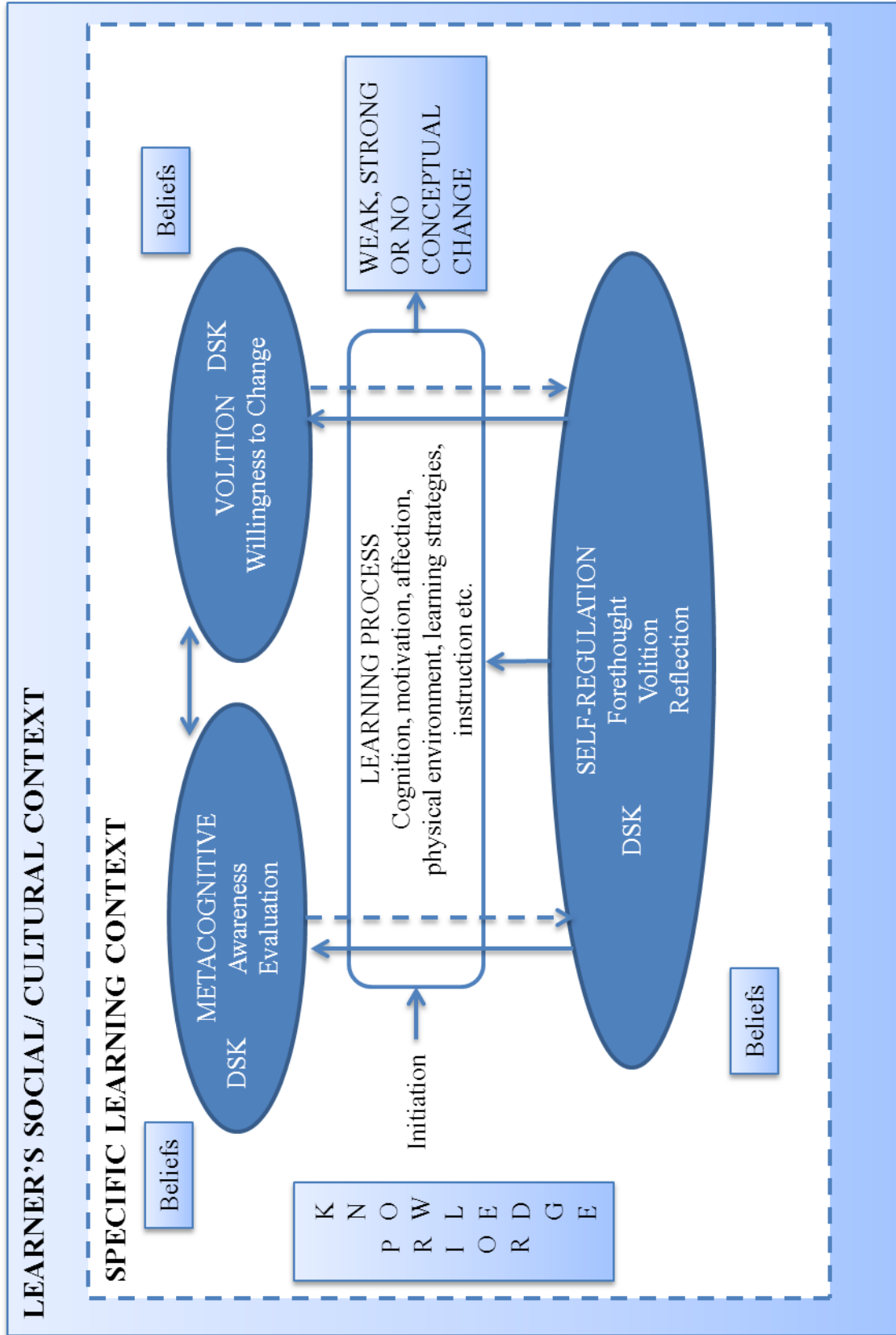


Figure 5. Domain general process of intentional conceptual change (Based on Limón Luque 2003, 133-170; Ruohotie 2004, 173-179)

In the understanding of intentional conceptual change in this research, all of the above-mentioned three aspects are present. In the process of change, intentionality is viewed as a purposeful action by the student to change his or her understanding of leadership. Sinatra and Pintrich (2003, 6) define intentional conceptual change as “the goal-directed and conscious initiation and regulation of cognitive, metacognitive, and motivational processes to bring about a change in knowledge”. Thus, intentionality is a rather comprehensive term referring to the entire learning process, to cognitive, metacognitive, affective, and conative beliefs and processes and it views learning as a controlled and conscious process of change.

Regarding intentionality, phenomenographic understanding utilizes and modifies Brentano and phenomenology’s idea of intentionality. Learning is inherently intentional by nature in that learning is always directed at something beyond itself, i.e., learning cannot be without content. As an intentional act, learning is not an act as such, but essentially a relation between a person’s awareness and the object (Niikko 2003, 16). Phenomenographic learning theory recognizes two intentional aspects, the “what” and “how” of learning (figure 6). The former refers to the specific object of learning. The latter is divided into two and refers to the act of learning, i.e., how one learns (e.g. learning style), and to the indirect object of learning, i.e., the type of learning a person aims at (e.g., memorization or understanding).

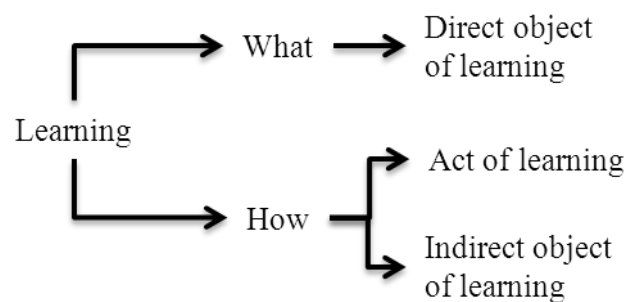


Figure 6. *Anatomy of learning* (Marton and Booth 1997, 85)

As learning may be considered a specific case of experience, a person experiences all three, the “what” aspect, and both “how” aspects in a learning situation. Graphically

this learning experience could be described by combining the “experience” figure with the “learning” figure in such a way that the “experience” figure is applied to all three aspects of learning.

3.1.5 Conceptual Change and Leadership

As noted earlier, much of the conceptual change research has been conducted in physics, math, and biology: domains in which learning has proved to be specifically challenging. The subject of the current study, leadership, is a sociological concept and thus belongs to another domain of knowledge in general. There does not seem to exist many studies related on conceptual change in leadership (but see e.g., Wang 2007; Arredondo Rucinski, Beas Franco, Gomez Nocetti, Queirolo & Daniel 2009). However, intentional conceptual change is a domain-general process applicable in any knowledge domain (Limòn Luque 2003, 140).

Changes in leadership type of ill-structured domains are often discussed as belief changes instead of cognitive changes (Hynd 2003, 293). However, the difference between the two seems to be more ostensible than real. In social psychology beliefs are conceptualized similarly to that of knowledge in cognitive science, both recognize the role of prior knowledge or belief, and changes are thought to exist, basically, on two levels. Social sciences discuss beliefs instead of knowledge as they emphasize a person’s commitment to the new conception or belief as separated from intellectual comprehension. This emphasis on affective and conative aspects of change has displayed a difference between the two, but even this distinction disappears in intentional conceptual change that is equalled with attitude change in social psychology. (Hynd 2003, 291-315.)

3.2 Leadership as a Culture-Situated Phenomenon

This research is specifically interested in studying conceptual change in leadership in African culture. As an explorative, phenomenally oriented research, the aim of this research is to understand and describe changes in the conception of leadership as experienced by the students in the aforementioned context. In this type of approach, a leadership theoretical survey provides the conceptual background against which the results are analysed and reported, thus making the results more readily comprehensible. In this section, the attempt is to do the following. First, I proceed to define leadership in general. Second, I attempt to define leadership as a culturally situated phenomenon. Third, the section provides an explication of African leadership. Thus, this section will provide the reader with the researcher's position on leadership theory, which of course constitutes the researcher's preunderstanding through which he has approached leadership in this research.

3.2.1 Definition of Leadership

Currently, leadership is considered one of the most studied domains of knowledge in social and behavioural sciences (Ruohotie 2006, 1). Regardless, its precise definition has proven to be a difficult task. DuBrin (see Pye 2005) estimates an existence of some 35,000 different academic definitions of leadership. In addition to these singular definitions, Fleishman et al (1991, in Northouse 2007, 2) recognize an existence of 65 different classification systems of leadership theories. In light of this it is no wonder that Bennis (2007, 2) describes leadership as “vast, amorphous, and slippery.”

Despite of the efforts invested in studying leadership, it is still considered one of the least understood areas of social sciences (Chhokar, Brodbeck & House 2007, 1). Currently there is no single generally accepted definition or theory of leadership. If one considers the critical theorists perspective, it can be stated that researchers do not even agree on whether leadership actually exists as an ontologically distinct phenomenon or whether it exists only in discourses, ideas, and attributions (Alvesson

& Sveningsson 2003). Leadership has been defined very broadly as intentional influence. Hersey and Blanchard (1990, 83) state that leadership occurs in any situation in which a person aims to influence the behavior of another individual or group. The strength of this kind of definition is that leadership is seen without any limitations in an enormous variety of social contexts such as marriage, nation, church, sport team, military, civic movement, etc., to mention but a few. However, this kind of a rather loose definition also makes leadership such a common social phenomenon that it is bound to lose at least some of its explanatory power.

In this research leadership in general is understood to be a multidimensional and complex social, organizational phenomenon consisting of the presence and function of the basic elements presented in figure seven and described below. The existing leadership theories may be considered as contributing to the proper understanding of leadership, but each one of them alone is considered to lack the capacity to explain leadership comprehensively and exhaustively. In order to assist the reader to capture the essence of the preunderstanding of leadership in this research, Ruohotie's (2006) definition of leadership is provided as a summary.

Ruohotie (2006, 1) defines leadership as a social process, which a leader/superior regulates and thus influences group's or organization's products/results and to the work community's members' cognitive and affective constructs. Leading is determined by the activities through which the leader/superior causes changes on group or organization's produced products/results and members' cognitive and affective constructs.

This definition captures the complexity of leadership and demonstrates the proper roles and relationships to one another of the basic factors of this research. Leadership is considered as a separate social phenomenon. It is further understood to be an organizational or institutional phenomenon, which is separate from common social influence. As a process, leadership is a continuous, and usually a long-term, and a gradually developing, procedure. As a social process, leadership occurs in groups of people, including relational interaction between the people involved and the general environment and the specific leadership context that leadership takes place in at any

specific time. At the same time the existence of a leader is recognized. A leader directs and is the main character in the leadership process, although the leader's role and function may change. This implies that the leader's personality, as well as the leadership skills and styles one uses, are also part of the phenomenon. Influence as belonging to leadership per se is considered primarily unidirectional. This is not to deny the influence of the followers on the leaders and its indirect influence on the leader and his or her leadership, but the actual leadership is limited to the leader(s) function. The definition brings out the comprehensive nature of this influence on the produced results and on the followers' affective and cognitive constructs. This refers to the leader's large responsibility in organizational operations. The definition also separates leadership and leading from each other, and thus highlights the common problem in understanding leadership as it is often described in terms of what leaders do and not as what leadership actually is (for a discussion on this terminological problem see e.g., Western 2008).

3.2.2 Leadership as a Social Concept

As a process that influences people, groups, and organizations in multiple ways, leadership is inherently social by nature, located in place and history. As a social conception it is much unlike the physical world, a fact that according to Bennis (2003) partially explains the above-described definitional difficulties. This is because the social world is neither as orderly as the physical world nor as susceptible to rules. Hence, individuals and groups are unique and their behaviour often unpredictable (Bennis 2003, 1.) Similar to leadership, culture is also a social conception and even without a specific definition, culture is about people, their behaviour, thinking, values, beliefs, and so on.

Leadership includes a complexity of social factors. Juuti (2006, 160) identifies several perspectives from which organizational leadership may be approached. According to Juuti (ibid.), leadership may be seen as:

- Part of a group's social process
- Leader's trait

- Way of influence
- Power relationship
- Means to achieve a goal
- Social role
- Part of social structure
- Cultural phenomenon
- Symbolic action
- Sensemaking
- Human activity and imagining of a creative story
- Fashion

An analysis of this list and the factors included in them reveals the multidimensional nature of leadership. As a human activity or process, leadership necessarily includes several person-related features such as personality, appearance, gender, rationality, cognition, and emotions. In its common meaning it necessarily involves more than one person, since leadership is an institutional, organizational, or a group phenomenon and therefore includes social aspects such as relationships, communication, social systems, and power relations. Leadership is also a situated activity. As such the various types of cultures people bring into a particular leadership situation influence leadership. As a situated phenomenon, leadership is also tied to the type of organization or the nature of the community, because leadership is relative to the particular situation a specific leadership function or activity takes place in at any given time. When these factors change, leadership changes also. As an influence leadership involves power and ethics. As a goal-driven activity leadership encompasses skills, values, principles, personal and communal desires, goals, and the like. These are just some of the numerous factors involved in leadership and many others could still be identified but these are enough to show that numerous aspects of human life are directly or indirectly involved in leadership.

As a social phenomenon leadership is linked to the society's susceptibility to change, and cannot easily find a permanent, constant meaning or form. Leadership paradigms and theories are tied to their time and reflect the societal changes relatively quickly (Seeck 2008, 17). According to Seeck (*ibid.*, 17-39) the normal age of a leadership

paradigm is 20 to 30 years, after which a new one replaces it. The modern systematic research on organizational leadership started approximately one hundred and fifty years ago, and during this time the societies have moved through the industrial and the post-industrial societies to the current knowledge society. Seeck (ibid.) identifies five different leadership paradigms that have influenced business leadership thinking during this time, starting from the taylorian scientific management to the currently dominative innovative paradigm. Yet, leadership paradigms do not form the most fundamental level but are a reflection of, and dependent on, even more fundamental societal phenomena.

Juuti (2006, 156-203) traces the changes in leadership thinking to the changes in worldviews during the time of scientific research of leadership. Juuti (ibid.) classifies the existing leadership theories on the basis of their fundamental ideological assumptions. The leadership theories and models that were developed during the dominance of the modern realistic worldview echo the dichotomist nature of the objectivist understanding of reality. The theories typical to this period include such as trait, skills, and styles theories. All these theories view leadership essentially as existing in the leader's personality, skill, or behavior.

The movement away from the realist worldview to the interpretative perspective produced new theories. In comparison to the realistic worldview that attempted to explain leadership and locate it firmly on the leader, the interpretative worldview takes a more relativistic stand and aims at describing leadership in order to understand it. The interpretative view moved the attention from a leader to the followers and leadership situations in order to capture the phenomenon comprehensively. Transformational and charismatic leadership theories belong to this era. The postmodern worldview sees leadership models as leadership texts, which are part of organizational discourse. Because postmodernism considers the human self as a continually changing entity that positions itself within the discourse it participates in, leadership also becomes a continually changing phenomenon. Postmodernism does not necessarily reject the insights offered by various leadership theories, but rather challenges the traditional understanding of the nature of the phenomenon (Juuti 2006,

156-203.) Juuti's (ibid.) analysis displays the specific link between understanding of leadership and worldview.

3.2.3 Leadership as a Cross-Cultural Phenomenon

There are a number of different ways in which the term cross-cultural is being used in relation to leadership research (Smith & Peterson 2002, 217). In this research the aim is not to test the applicability of a theory in a different culture from the one the theory was originally developed in. Instead, cross-culturality refers to the cultural difference of the interviewees of this study as compared to Finnish culture.

The relationship between culture and leadership has been researched widely lately, and as Dickson, Den Hartog & Mitchelson (2003, 748) comment, cross-cultural leadership is currently developing into a distinct research domain. Cross-cultural leadership research has concentrated on whether leadership is a universal or a cultural phenomenon. Two main views have developed. One the one hand, cross-cultural studies in general seem to make principles of leadership a culture specific conception by emphasizing the connection between culture and leadership. On the other hand, some researchers tend to find leadership principles more universally applicable than conceptualization (House, Javidan, Hanges & Dorfman 2002).

Both trends seem to provide fruitful direction for research. Because people live in groups and form cultures, it is logical to expect that their leadership thinking and behaviour will also reflect cultural idiosyncrasies. Even if there are cross-cultural general principles, these receive a unique meaning and expression in a specific culture. (Den Hartog, House, Hanges, Ruiz-Quintanilla & Dorfman 1999). Again, individual people are not only cultural products but also have an individual personality, and this personality seems to have universal appearance. Regarding global management, Brannen et al (2004) claim that such personality traits as extroversion, agreeableness, conscientiousness, and neuroticism, as well as differences in skills and abilities, are relatively stable characteristics of people universally. The universal dimensions of human personality form the foundation for

the universality of social phenomena, leadership included. Finally, the dimensions used to measure cultures, such as individualist-collectivistic, exist on a continuum and therefore are not totally separated from each other. Thus a single culture is located somewhere on the continuum, and rather seldom on one of the extremes without any trace of the other extreme. Thus, somewhat paradoxically, even the recognition of differences at the same time brings out cultural similarities, leaving them in tension that does not outdo either one.

In order to research the cross-culturality of leadership, several forms of universality have been developed. Lonner (1980) recognized the existence of four types of universals: simple, variform, functional, and systematic. To his list Bass (1997) added two more universals: variform functional and systematic behavioral. Simple universal is a phenomenon that is constant globally. Bass' (ibid.) term variform universal refers to a principle that is constant throughout the world, but which is acted out in different ways in various cultures, while the term functional universal refers to a case when there is a within-group correlation between two variables that remain nonvariant between cultures (Lonner 1980.) The principle of a variform functional universal is present when there is an established relationship between variables but its degree varies across cultures. Lastly, the systematic behavioral universal is a principle about relationships that explains if-then outcomes across cultures (Bass 1997.)

Several studies that have been conducted report different types of leadership related universalities across cultures. Bass (1997) reports of the universality of three corollaries: firstly, a hierarchical correlation between leadership styles and their outcomes in effectiveness, effort, and satisfaction; secondly, a one-directional augmentation effect in relation to transformational leadership; and thirdly, when people think of leadership their prototypes and ideals of leadership are always transformational, regardless of the specific culture. Similarly, Dorfman, Hanges and Brodbeck (2004) report on evidence of partial universality, more specifically in five countries, of such leadership behaviors as leader supportiveness, contingent reward, and charismatic leadership. Silverthorne (2001), in his study on personality characteristics of effective and non-effective leaders found low scores on neuroticism and high on extroversion as support for simple universality.

Den Hartog et al (1999) argue for the universal nature of the importance of the number of charismatic/transformational leadership attributes. The attributes identified included integrity (i.e. trustworthiness), justice, and honesty. Specifically charismatic constructs included the following attributes and traits: encouraging, positive, motivational, confidence builder, dynamic, and foresight. The results also included team-oriented leadership attributes such as team building, communicating, and coordinating. In addition to these, several general attributes were identified including the following traits and attributes: excellence oriented, decisive, intelligent, and win-win problem solver. The study also identified negative universals, i.e., leader attributes that impede outstanding leadership. These included the following: being a loner, non-cooperative, ruthless, non-explicit, irritable, and dictatorial.

The GLOBE study, representing a major cross-cultural research project, indicates a close relationship between societal culture, organizational culture, and organizational leadership. This means that specific cultural attributes and entities indicate leader attributes and behaviors and organizational practices. For example, communal values and practices affect a leader's actions as well as his or her organizational culture and practices. Identifying nine organizational and societal cultural dimensions that utilized Hofstede's (1980) model, the GLOBE study was able to identify six worldwide, culturally generalizable leader behavior dimensions: charismatic/value-based, team-oriented, participative, humane-oriented, autonomous, and self-protective leadership.

These examples provide evidence that leadership has universal dimensions, but seems to always appear in close connection with a specific culture. This close connection seems to suggest that finding simple universals is difficult and that the emphasis of research should be placed on variform and variform functional universals instead.

In summary, in this research leadership is understood as a cross-cultural conception with universal dimensions. The universal dimensions include at least the ontological elements, preferred leadership styles, some negatively viewed practices, and certain leader behavior patterns. In any specific cultural context, people utilize these universals, often modifying them according to cultural preferences. In addition, leadership may take on culture-specific local contingencies. In practice, leadership is

thus always tied to a specific location and historical situation. As socio-cultural action, the specific circumstances create the need for and determine the type of leadership required. This is guided by the cultural perceptions of preferred leadership behavior of the leader and the followers.

3.2.4 Ontological Analysis of Leadership

In cross-cultural leadership research's search for some type of universals, one possible direction could be to concentrate on the ontological analysis of leadership. Identification of the fundamental elements of leadership would potentially enhance our ability to define it as well as guide us to recognize the universal dimensions. Bennis' (2007) identification of leader, followers, and their common goals as the ontological triad reflects current thinking. Drath, McCauley, Palus, Van Velsor, O'Connor and McGuire (2008, 635-653) predict that in the future leadership contexts are going to be more collaborative and peer-like and thus call for a different ontological basis for leadership. Consequently, they propose ontology of leadership outcomes, i.e., direction, alignment, and commitment as an alternative to the traditional view. A simple ontological analysis based on the current leadership theories is provided below (figure 7). This explication reveals the fundamental basis of how leadership is understood in this research.

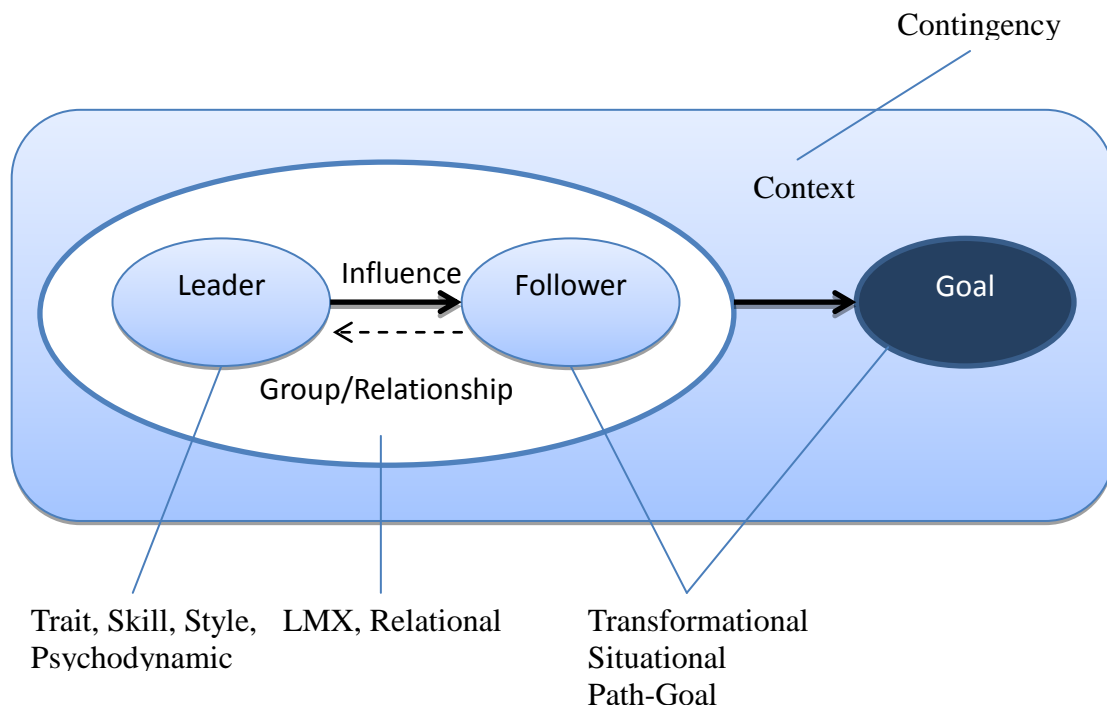


Figure 7. Graphical summary of the essential elements of leadership

Analysis of different leadership theories reveals that leadership may be considered to take place in a cultural framework and consisting of the following five main elements or factors: influence, leaders, follower(s), relationship between the two, and leadership context. The role and importance of the elements vary, as theories define leadership by identifying it with one or more of the elements with varying combinations. However, the presence of all of these elements may be recognized either directly or indirectly in most theories. For example, the skills theory sees leadership essentially as the leader’s skill or ability (Northouse 2007, 39-68). In this theory the existence of followers and a relationship between the leader and the followers is more of an unspecified basic assumption but neither one is considered as part of leadership per se. On the other hand, in team leadership, which Northouse describes as team-based problem solving (Northouse 2007, 207-236), the theory specifically includes followers as team members and as part of leadership.

Attached to the basic elements, the figure includes some leadership theories as well as features of the elements that are essential to leadership and recognized as such by the theories. The theories and features mentioned in connection with the elements should

be taken as examples and not as an exhaustive list of either group. In other words, the categorization of theories should not be taken too dogmatically as many theories are rather close to one another and sometimes even overlap each other. Also, some theories exist in differing versions and could be grouped differently so this is just one way of classifying leadership theories.

In the figure, the outer line indicates the basic demarcation of leadership as a cultural phenomenon. The cultural nature of leadership is not specifically addressed by many theories. In other words, there are no cultural leadership theories per se (Northouse 2007, 301). However, culture's role in human social phenomena and experience is so firmly established that culture is identified as one of the basic elements of leadership in this presentation. Regardless of the way leadership is defined, it is a human and communal phenomenon and as such a cultural phenomenon. For example, Hofstede (2003, 10) identifies national, generational, social, and religious cultures as examples of these different cultural levels. Also, individual people carry a varying number of these cultural levels within them to the activities they participate in, leadership included. In House, Hanges, Javidan, Dorfman and Gupta's (2004) study of leadership among people from 62 different countries, the countries are divided into ten cultural clusters. The results show that understanding of leadership varies between cultures on these regional levels. However, in addition to these cultural differences, House et al (ibid.) also found common cross-cultural characteristics. They identified 22 positive and eight negative leadership attributes shared by people from all regions included in the study.

Below we shall discuss the five main elements of leadership. Influence is the first main recognized element and therefore is a core attribute of leadership (Yukl 2003, 3). Influence as a noun refers to the leader's personal power to act on persons or things, while influence as a verb refers to the use of that power to shape or cause others to achieve something (Kakabadse & Kakabadse 1999, 3-4). The tasks of a leader vary, but the leader's role is to influence people, things, or circumstances and often all of these in varying degrees. According to French and Raven (1959), in order to influence, a leader needs power and traditionally five sources of power have been identified: reward, coercive, legitimate, expert, and referent (Yukl 2003, 4). Modern

research that understands leadership as a social process and as mutual trust and understanding between the leader and the followers is added to this list. Traditionally, the leader's influence was considered primarily in relation to the organization's goals (e.g. Karlöf 1995, 114), but recently research has emphasized the need to apply a more holistic view of influence that includes peoples' cognitional and emotional aspects as well (Ruohotie 2006).

The arrows in the figure indicate the influence between the leader and followers that runs in both directions. The thicker arrow indicates the leader's influence on the followers, which is explicitly stated or implicitly assumed in all theories. The thinner line refers to the arguments of some theories that even the followers influence the leader and thus at least indirectly also the leadership. This kind of two-way influence is especially evident in theories that consider leadership as a group or social phenomenon. Maxwell (1998) defines leadership emphatically but simply as influence. However, considering that people influence each other in various kinds of situations and the influence switches back and forth between participants continually, defining leadership simply as influence seems to be too vague of a definition of leadership. In other words, if leadership is defined in this way, the concept becomes unhelpful due to its comprehensiveness, because it does not grasp all aspects of leadership adequately, although it may highlight the most essential characteristic rather well.

The leader is the second main element of leadership. Early theories of leadership focused on the leader. Thus Borgatta, Bales and Couch (1954, 755-759), who studied group performance, found that those groups, which had a great man leading the group, were the most effective. A definition of a leader depends on the particular definition of leadership, but in this context the term leader refers to a person(s), who practices leadership at any given point. Traditionally, a leader is a person, who influences others in one way or another, and therefore carries most of the responsibility, but also has most of the power. The position of a leader in leadership seems to be well established because of practical organizational realities. This seems to be the norm even in cases where the theory and practice of leadership is critically assessed, e.g., in critical theories (Alvesson & Wilmott 1996, 18). The role of the leader varies in

leadership theories. For example, trait theory considers leadership rather straightforwardly as the innate qualities or characteristics of a leader (see e.g. Mann 1959, 246-253; Northouse 2007, 15-38), whereas in skills and style theories, the leader's know-how and behavior define leadership (see e.g. Katz 1955, 33-42; Lewin, Lippitt & White 1939, 271-299). Then again, in group or follower centered leadership theories, a leader is formally not so prominent and therefore influence becomes more diverse.

The third main element in leadership is the follower(s). Traditionally, followers have been considered targets of leadership activities, i.e., they are the ones being led and as such they are not really part of leadership. However, many current theories view leadership as a consequence of followership, making followers the focal point of leadership (Grint 2005, 38). The follower-centric views do not deny the existence of a leader or leadership actions, but consider concentration on the followers a better and more fruitful approach in understanding leadership. Thus, the path-goal theory of leadership originally formulated by House (1971, 321-339) recognizes the close connection between a leader's behavior and the followers' attitudes, feelings, and actions. These theories emphasize the followers' role as the actual producers of the organizational results and consequently concentrate on the followers' motivation, affect, abilities, situation and the like on which the leaders need to base their leadership actions (Lord & Brown 2004, 1-11).

The relationship(s) between the leader and the follower(s) forms the fourth basic element of leadership. Instead of focusing on either the leader or the followers, leadership is understood essentially as an interactive process constructed and actualized in the relationship between the two. Uhl-Bien (2006) divides relationship-oriented leadership theories into two kinds, entity and relational perspectives. The entity perspective, reflecting a realist and an objective view of reality, focuses on leaders and followers as individuals and separate entities and therefore emphasizes their leadership related personalities, behaviors, and intentions. In the entity perspective approach, relationships are viewed as means for two-directional influence in attainment of common goals. On the other hand, the relational perspective approach relies on relational ontology in which social realities are considered as interdependent

constructions existing only in relations. It focuses on social construction processes instead of individuals and their leadership related attributes. Relationships between a leader and the followers are viewed as relational venues of dialogue, in which the organizational members continually renegotiate the meaning of organization and leadership. (Uhl-Bien 2006.)

The concept referred to as larger ellipsis, refers to leadership understood as a group phenomenon. In these theories leader(s) and followers merge together and become less visible as separate elements and therefore leadership is considered as a function emerging from the group as a whole. In this approach, traditional roles and hierarchies are diminished and leadership is considered as a function that different members of a group may provide at different phases of the work, despite the existence of a formal designated leader.

Leadership does not take place in a vacuum, and thus the fifth and last main element recognized is the context. Context includes both the type of organization and the particular situation that leadership takes place in. Different types of organizations, such as businesses aiming at maximum financial profit, need different types of leadership than, for example, non-profit organizations whose aim is to change people or provide services. Similarly, the specific context, i.e., people, relationships, goals, etc., vary from one situation to the next in such a way that leadership must take various forms to ensure maximum effectiveness.

3.2.5 Church Leadership

A quick glance on church leadership and on church as an organization is in place, because to some extent the past and present experience as well as future orientation of the students, who took part in our research, had been in close connection with a particular Christian church or a parachurch organization. Organizationally the church is simultaneously a unique organization, but also, in many respects, a rather similar institution to other organizations.

The uniqueness of the church is primarily linked to the conceptual self-understanding of churches. This is because Christians consider the church to consist of a natural and a metaphysical element. This double nature means that the church is considered to be both human and divine, or a sociological and a spiritual community as well as an organization all at the same time (Turunen & Poutiainen 2003, 24). Therefore, the Church views itself as a community whose task is to represent invisible divine reality in visible form (Huhtinen 2001, 32).

As stated above, the church is simultaneously both unique, i.e., different from other organizations, but also similar, i.e., it resembles other organizations. The resemblance to other organization can be seen, for example, in the way churches and denominations have adopted different kinds of organizational structures. The three basic models are episcopalian (see e.g. Toon 2004), presbyterian (see e.g. Taylor 2004), or congregational (see e.g. Patterson 2004; Waldron 2004). The first two have a more developed hierarchy: the episcopalian model has individuals in leadership positions, while in the presbyterian system, the general assembly has the ruling power. The congregational system has a simpler organizational structure as it holds on to the independence of every local church. Regardless of the peculiarities of church organizations, similar organizations or organizational elements are found in other organizations, institutions, or groups as well. According to Parsons (1960) churches belong among organizations whose task is to maintain society by providing cultural and educational services in order to provide societal continuation and development (Seeck 2008, 20). Drucker (2001, 223-226), on the other hand, includes churches among non-profit organizations, which belong to the so-called third sector together with hospitals and schools. These organizations have the distinct characteristic that their workforce consists largely of volunteers. Shared values, mission, and ideology characterize non-profit organizations and therefore their members exhibit a strong and voluntary commitment to the organization's goals and operations (Mansukoski 2008, 8).

Church leadership follows a similar pattern; it is rather similar to leadership in other organizations but has its unique features as well. Leadership and organization are tied together because a community always exists for some purpose and one essential task

of leadership is to ensure that a group or organization reaches its goals (Sydänmaalakka 2006; Turunen & Poutiainen 2003, 14-15). The uniqueness of church leadership stems primarily from the church's purpose of existence, task, and goals. The church's task is spiritual by nature as it proclaims the gospel of salvation and love (Turunen & Poutiainen 2003, 22). In practice, this means that individual church organizations utilize certain practices (e.g. prayer) or resources (the Bible) in their operations and leadership in accordance with their worldview and beliefs. Perhaps one quite common characteristic of church leadership is its multidimensionality. Due to the peculiar nature of the church, the leaders are required to accomplish such common leadership tasks as budgeting, planning, and financial management, but also rather dissimilar tasks, such as pastoral counselling and teaching (Huhtinen 2001).

At the same time, church leadership resembles other leadership rather closely. The church is also a human community and an organization, and as such it is subject to the same principles of human life and communal functioning as other humans and organizations (Huhtinen 2003, 33). It seems that in leadership there is no strong polarization on the church-secular world continuum, but principles and theories are being exchanged. Such themes as servant and spiritual leadership that traditionally have been considered Christian themes have been incorporated into secular leadership models as well. Therefore, church leadership utilizes the same leadership principles and practices as other types of organizations (Blackaby & Blackaby 2001). As Huhtinen (2003, 33) notes, "There are no divine leadership theories." This similarity is evident in Christian leadership definitions. Wright (2000) defines leadership as "a relationship in which one person seeks to influence the thoughts, behaviours, beliefs or values of another person." Rush (1983) defines biblical management as "meeting the needs of people as they work at accomplishing their jobs." This similarity is quite natural because in the end the church's task does not differ fundamentally from the task of other non-profit organizations. According to Drucker (2008, 21), these organizations' task is to change individuals and society, and although they do it on different levels, and in different ways, this categorization applies to the church as well.

Due to the practical research context, the potential difference between church and common leadership is even smaller in this research. In African ontology, life in general is also a religious experience. Religion is not considered a separate segment of human life but it rather permeates all aspects of everyday life, including leadership. Such kind of compartmentalization of life that is evident in the Western world is not typical for African experience and consequently there is less need to separate different forms of leadership from one another (Mbiti 2002.)

3.3 African Leadership

As this research was conducted in Africa, its understanding of leadership is characteristically African. This section provides an introduction to African leadership. Similar to the explication of the term African above, the use of the concept “African leadership” in this research requires a short explanation. First, the conception should not be understood to suggest the existence of a purely African form of leadership. It is rather commonly noted that elements of leadership, which are often labelled, e.g., Western or European, are also found in Africa and that the characteristics considered peculiarly African may also be found elsewhere. For example, African communalistic thought, according to which a person’s individual needs and desires will be met automatically when one places the interests of the group first, seems to be rather similar to the way Hampden-Turner and Trompenaars (1993, 15) describe Japanese culture. Thus, African leadership seems to be a descriptive conception without any claim for exclusivity. Second, similarly to Carlsson’s (1998, 17-18) comments on African management, it cannot be assumed that every African leader thinks and functions precisely in the same way. Conceptualizations of leadership as well as its practices are context bound and consequently vary between locations. The following description is purported to provide the reader with the overall African conceptualization of leadership.

African leadership is apportioned quite naturally into three thematically and historically distinct periods: the traditional, the colonial/post-colonial, and the African renaissance periods, although all are currently in existence (Jackson 2004, 18-22).

Traditional leadership covers the pre-colonial time of independent kingdoms, empires, and tribes. The colonial/post-colonial period covers the following period that started in the 19th century. Politically the colonial period ended in the 1960s when many African nations gained political independence from the foreign colonial powers. However, the experience of many Africans is that colonization has continued and still continues in a number of ways. The influence of colonialism penetrated social structures and practices and therefore continues to have a visible impact on, for example, leadership (Jackson 2004, 15-19). African renaissance forms the third period; a period that chronologically overlaps with leadership of the colonial period, but has not yet developed into full maturity.

3.3.1 Traditional Leadership

Traditional African leadership consists largely of communal leadership in a framework of kingdoms, tribes, clans, and families (Mbiti 2002, 182-187). This is because African industrialization and the development of the accompanied modern types of businesses and organizations, as well as the formation of national states, have taken place relatively late. Traditional African rulers included kings and queens, tribal chiefs and heads of families, as well as such specialized persons as rainmakers and priests. As religion was not separated from the rest of everyday life, rulers were actually religious leaders as well, and therefore the various roles of leaders are not so easily distinguishable. Kings were considered representatives of deity on earth, i.e., they were viewed to be almost omnipotent: sacred beings separated from ordinary people. Rulers symbolized the unity and common tradition, wealth, and prosperity of the people. There was necessarily no strong emphasis on personal leadership skills or abilities, but instead the ruler's power rested on the myths, traditions, and taboos surrounding them. (Mbiti 1991; 2002.) Despite of this metaphysical aspect and the leader's respected position and status, ideal leadership was not necessarily autocratic dictatorship, but rather leadership practices demonstrated modern types of democratic principles. The ruler had an assisting body of councillors and he or she had to rule by consensus. People were considered to be collectively responsible for keeping the law

and had a chance to speak in an open court without fear of being punished. (Boon 2007, 43-45.)

Because traditional African culture was almost exclusively oral, the written material regarding traditional leadership is scarce. Mbigi (2005, 224-232) presents a number of traditional communal practices and beliefs as African leadership theories that may also be translated and modernized to present-day leadership and management practices (table 4). Although these practices do not amount, at least not in the current state of development, to leadership theories per se, they provide a good perspective to traditional African leadership and indicate the potential possessed by traditional customs and beliefs for modern leadership theories and practices. The table below shows a short summary of the cultural customs and how they may be applied to leadership practices.

Table 4. *Traditional African leadership customs* (Mbigi 2005, 224-232)

Traditional African Leadership Customs	
Cultural Custom	Applicability to Leadership
Corpse Shadow: A corpse showing a shadow displays death with unresolved issues and cannot be buried	Helps to deal with past organizational tragic events
Dandaro Renewal: A ceremony that lasts a whole night to assist people facing daunting challenges	Creates consciousness and reflection on challenges
Mukwerera: A ceremony honouring fertility spirits where production is discussed	Platform for mobilization and strategy democratization
Spirit in African Traditional Religions: Spirit represents the totality of a human being, and therefore through changing the spirit (i.e. the being), the environment can be changed	Creation of emotional, social, cultural, material and spiritual capital
Nhorowondo: In order to understand a thing, one needs to understand its origin and evolution	Applicability of a certain leadership/management method or theory
Wounded Soul: Being healed from a traumatic experience	Leaders must be emotionally independent and balanced

This traditional leadership forms the background to modern African leadership thought, although there are not too many of these kinds of traditional rulers today. To

Mbigi (2005, 6), traditional worldview, culture, and leadership form an essential foundation for modern leadership and development. Indeed, April and Ephraim (2006) state that African leaders are considered the custodians of culture and cultural institutions as well as personifications of tribal unity, resonating the role of the traditional rulers.

3.3.2 Colonial/Post-Colonial Leadership

The second period of our observation, i.e., the colonial/post-colonial era, extends chronologically from the beginning of colonialism to the present time. In general, leadership of this period is characterized by heterogeneity marked by the simultaneous existence and mixture of non-African (mainly Western) and African leadership paradigms, the tensions between these two, as well as between the desired ideal leadership and experienced practical leadership.

Blunt and Jones' (1997) study provides a description of current African leadership. According to Blunt and Jones (*ibid.*), African leadership is characterized by highly centralized power structures, high degrees of uncertainty, an emphasis on control mechanisms over organizational performance, bureaucratic resistance to change, individual concern for basic security, and the importance of kinship ties. In other words, the culturally preferred leadership is paternalistic, authoritative, hierarchical, and conservative. A leader is a father figure enjoying high deference from the people dependent on him. Hence, a leader is a people-oriented person, who provides clear direction and security and assistance for those under his leadership. (Blunt & Jones 1997, 6-23.)

However, according to Jackson (2004), the situation is more complicated than Blunt and Jones (1997) suggest. Jackson (2004, 15-22) identifies a variety of tendencies that may be reduced to three different leadership and management systems existing currently in Africa: the post-colonial, the post-instrumental, and the African Renaissance. The post-colonial leadership has its historical and political roots in colonial times and is based on the developed–developing world dichotomy. It

represents McGregor’s (1960) theory X, characterized by detachment, high centralization, hierarchy, and authoritarianism. It continues to exist as the learned model for managers. Post-instrumental leadership, on the other hand, reflects attempts to implement human resource management types of practices from the Western world to African organizations. In contrast to the post-colonial view, the post-instrumental approach represents the so-called Y theory (McGregor 1960), reflecting modern Western functionalist leadership thinking. The third view, i.e., African Renaissance, represents leadership based on African culture, values, and worldview. This view is presented more fully below under the heading ubuntu (Jackson 2004, 19-30).

South Africa presents a specific form of Western–African dichotomy through its unique demography. Booysen and van Wyk’s (2008) study among Black and White South African management personnel presents the two-fold situation present in South Africa (table 5). This displays a difference between Eurocentric/Western and Afrocentric leadership, a difference that at least in part also reflects the unique demographic constitution of the country (Booyesen & van Wyk 2008, 464-470). It should be noted that the words “Higher”, “Lower” and “Comparable” in the table 5 indicate the scores of the groups only in relation to each other, not their score in the scale or relation to other countries.

Table 5. *GLOBE comparison of Eurocentric and Afrocentric leadership* (Booyesen & van Wyk 2008, 464-470)

GLOBE Comparison of Eurocentric and Afrocentric Leadership		
GLOBE Dimension	Eurocentric	Afrocentric
Performance Orientation	Higher	Lower
Future Orientation	Higher	Lower
Gender Egalitarianism	Higher	Lower
Assertiveness	Higher	Lower
Humane Orientation	Lower	Higher
Power Distance	Comparable	Comparable
Collectivism	Lower	Higher
Uncertainty Avoidance	Higher	Lower

It is noteworthy that Power Distance is the only dimension in which Booysen and van Wyk (ibid.) did not find a significant difference between the race groups. This corroborates the claim that leadership is culturally bound. The White South African management group's profile matches the Eurocentric management system, which emphasizes "competition, work-orientation, free enterprise, liberal democracy, materialism, individual self-sufficiency, self-fulfilment and -development, exclusivity, planning, methodology and structure" (Booyesen & van Wyk 2008, 469-470). In contrast, the Black South African group's profile emphasizes "collective solidarity, inclusivity, collaboration, consensus and group significance, concern for people as well as working for the common good, structure through rituals and ceremonies, patriarchy, respect, and dignity" (Booyesen & van Wyk 2008, 470).

Bolden and Kirk's (2009) study provides yet another perspective to African leadership through revealing the tension between the experienced reality and the desired ideal in African leadership (table 6). The existing picture reflects Blunt and Jones' (1997) description presented above. However, their study of the participants of an African leadership development programme suggests that the leadership in its current form is not what the participants would like to have.

Table 6. *Changing perceptions and meanings of leadership* (Bolden & Kirk 2009, 79)

Changing Perceptions and Meanings of Leadership	
Leadership as Experienced	Leadership as Desired
For personal gain	For the benefit of a community
About heroic/charismatic individuals	About groups of people working together
Exercising personal power	Mobilizing action within the community
Influencing from a position of authority	Influencing from wherever you are in a system
About maintaining order and control	About embracing chaos and uncertainty to let new things emerge
Individualistic	Collectivist and interconnected
Elitist (based on whom and what you know)	Authentic (based on who and what you are)
About making decisions and setting rules	About stimulating a dialogue
Present oriented (about the current problems)	Future oriented (about creating a more positive future)

The results show that the expressed desired form of leadership is very different from the current rather authoritative leadership model. Participants look for participative, authentic, and communally oriented leadership that leaves room for personal differences (Bolden & Kirk 2009, 80.) In light of the results, Bolden and Kirk (ibid.) conclude that relational, critical, and constructive theories that see leadership as a group quality – non-existent as a distinct phenomenon or a sense making process, respectively – provide better ways for further leadership development and theorizing.

Theimann, April, and Blass (2006) present an analysis of the current situation and offer a way forward. Theimann et al (ibid.) agree with Blunt and Jones' (1997) description of African leadership described above. However, instead of taking it as an expression of actual African cultural leadership preferences, they view it as a result of an uncritical convergence process. This convergence process is a result of perceived superiority and ill-advised implementation of Western leadership theories and practices in Africa. According to Theimann et al (2006), this overlooks African culture and cultural value systems as it treats culture as an accidental phenomenon. However, as culture seems to have a definitive role even in relation to leadership, this approach does not produce the desired leadership practices. On the other hand, they are cautious about placing too much emphasis on the creation of a purely African form of leadership, as it might result in an imbalanced divergent situation. In contrast to convergence, this divergence sees culture as a driving force and places major emphasis on national and cultural differences. Consequently, it rejects the foreign leadership theories and attempts to build an African leadership theory by recognizing fully the African values and indigenous leadership wisdom. However, this does not take into account the current global interdependence in all areas of life, colonial history and its effects on Africa, and the local responsiveness to ideas from abroad.

In their look forward, Theimann et al (ibid.) aim to build on Jackson's (2004, 20-21) division of leadership systems mentioned above, and propose a more integrative approach that would take Africa's unique culture and leadership heritage into account. This "cross-vergence" approach should replace Jackson's three existing models due to their convergent and divergent aims. The proposed cross-vergence aims to take both the local culture and imported leadership practices and blend them together to form a

new hybrid value system and consequently new leadership theory and practices suitable for the African context. (Theimann et al 2006, 38-51.)

3.3.3 African Renaissance

The third leadership period is African renaissance that has started to shape current leadership but whose primary emphasis is on the future. During the past two decades or so there has been a relatively emphatic call for Africans to overcome their past deficiencies, i.e., all forms of imperialism and colonialism (Blunt & Jones 1997, 6), and re-appreciate, revitalize, and re-employ their indigenous value-systems in society (see e.g. Ntibatirwa 2003). In light of the seemingly evident failures of foreign political systems, Africans have become increasingly sceptical regarding the success of the smaller scale foreign inventions, such as leadership and management theories and practices. Major differences in values, especially the ones concerning authority, group loyalties, and interpersonal harmony as well as high capacity for tolerance and forgiveness demand a more local culture sensitive approach to leadership (Blunt & Jones 1997). Consequently, action has been taken towards a formulation of an African understanding of leadership. This may have been further influenced by the seeming power of cultural concepts and practices in leadership, as exemplified by the principles of the so-called Ubuntu philosophy in the Truth and Reconciliation Commission in South Africa in the aftermath of abolishing apartheid (Nussbaum 2003, 3), as well as by the success and popularity of exceptional individual African leaders such as President Nelson Mandela.

For many researchers, ubuntuism as an African philosophy provides a promising philosophical foundation on which a distinctively African leadership theory may be based. Already over two decades ago, Nzelibe (1986, 6-16) argued for the development of African management thought. According to Nzelibe (ibid.), African management thought differs from Western thought by emphasizing ethnocentrism, traditionalism, communalism, and cooperative teamwork instead of Eurocentrism, individualism, and modernity. Since then, these characteristics have been identified as parts of ubuntu philosophy in general and have also become a part of current African

understanding of leadership. Despite being identified with ubuntuism, these characteristics do not seem to be uniquely African. For example, Bordas (2007) argues for multicultural leadership in the global world, and her reflection comes from studying Latino and American Indian cultures that have some similar characteristics with African ubuntuism.

Nafukho (2006; 2008) describes the three core principles of ubuntu as consensus building, dialogue, and spirituality. In short, consensus building represents an African type of democracy that respects individual rights, as well as cultural values and differences with a limitless capacity for consensus and reconciliation that aims for togetherness and peace. Dialogue refers to the process of creating meaning of life. The genuine otherness of others is recognized and people discover their humanness through dialogue. Ubuntu also has profound respect for religious beliefs and practices, since these are considered essential to the development of human character. Furthermore, religiosity is considered important, because it unites people, especially the living people with their ancestors. (Nafukho 2006; 2008.)

Theimann et al (2006) identify six key values of ubuntu, that are closely connected to leadership: sharing, deference to rank, sanctity of commitment, regard for compromise and consensus, the concept of openness, and good social and personal relations. Firstly, sharing is based on the interdependency of all humans and specifically on the kinship relations. Also, sharing emphasizes commitment and obligation to help one another. Secondly, deference to rank refers to the proper recognition of a leader, because formal position and title are parts of leadership. Thirdly, sanctity of commitment implies the leader's necessity to respect one's promises and to conform to communal roles and duties. Fourthly, regard for compromise and consensus serves as a balancing factor against a leader's in excessive and improper appropriation and use of authority and power. The African leader is not an autocratic despot but a personification of the group's values, identity, and unity that are upheld collectively by all people in the group. In decision-making, people are obliged to be present and express their opinions, even if they are dissenting ones, and discuss the matter until a shared understanding, i.e. consensus, is reached. Although the leader makes and states the final decision, he is obliged to lead by consensus.

Fifthly, the concept of openness indicates everyone’s right to express his or her opinion in an open forum without fear of retribution or fear of being ridiculed. Sixthly and lastly, the value of good social and personal relations reflects the central statement of ubuntu philosophy: “a person becomes a person only through his/her relationships with and recognition by others” (Mangaliso 2001, 24). It refers to reciprocity and communal solidarity that comes before individual personal interests (Theimann et al 2006, 49-50; Mangaliso 2001; Nussbaum 2003).

Mangaliso (2001) calls for a new management theory that rejects invalid notions of human nature and instead embraces humans as social and communal beings. He argues that covert social attitudes have a strong impact on peoples’ workplace behaviour. Consideration of these attitudes in leadership provides organizations a competitive edge. The table 7 below and the following explication provide a short summary of how ubuntu philosophy views relationships, language, decision-making, time, productivity, age, and belief systems and how this understanding may affect leadership practices.

Table 7. *Philosophical views of ubuntu* (Mangaliso 2001, 24-31)

Philosophical Views of Ubuntu		
Issue	Understood in Ubuntu	Meaning in Leadership
Relationship with others	Human interdependence Reciprocity Suppression of self-interest	Importance of kinship ties in hiring Teamwork Collective reward systems
Language and Communication	Establishing and reinforcing relationships Creating the sense of community Constructing reality	Celebrations of achievements Interaction at work
Decision Making	Circular Deliberate speed Inclusive Polyocular vision Harmony and consensus as a goal	Negotiation Consensus
Time	Continuum having meaning only as experienced Healer	Not a primary or motivating force or factor
Productivity	Optimized efficiency	Consideration of all groups involved
Age	Asset Sign of experience and wisdom	Maturity Social skills
Belief Systems	Deeply religious/spiritual	Takes peoples’ spiritual culture seriously

Close kinship ties are important particularly in hiring and teamwork. Instead of fearing nepotism, ubuntu sees kinship ties as a positive base for trust, unity, and emotional and psychological support. Solidarity and suppression of self-interest favour teamwork as cooperation and competitiveness in terms of individuals working for the team. Since in ubuntu thought a solitary human being (a hermit) is a contradiction of terms, communication is essential, because in isolation a person's sense of community becomes questioned. For this reason interactive workplace environments increase welfare, motivation, and productivity even when not necessitated by the work itself. The ubuntu decision-making process is an all-inclusive open forum discussion forming a consensus. In organizations this may mean time consuming processes in major decisions. However, this investment in communication produces higher commitment to the decision, increased efficiency, reduced need for supervision and absenteeism.

Ubuntu reflects the traditional African concept of time, which differs fundamentally from that of Western thought and thus forms a potential hazard in situations where the two world-views get into contact with one another. The ubuntu time concept provides opportunities for task-oriented, rather than time-oriented, work organization. Ubuntu leadership does not focus narrowly on maximizing efficiency and productivity and thereby concentrate on producing financial profit for the main stakeholders. In contrast, it strives for the productivity of all people involved without considering the concomitant social impacts as collateral. Furthermore, in ubuntu, age is an asset. This is because older people are considered mature with more experience and wisdom than younger people. This maturity shows, for example, in the fact that they have created larger social networks, developed social skills, and therefore they bring their social status to leadership. Task specific technical knowledge and skills are also important in ubuntu, but they are not enough in themselves. Spirituality is an essential part of the African worldview and it cannot be compartmentalized. Hence, ubuntu leadership takes peoples' spirituality seriously by integrating religious practices into organizational practices. (Mangaliso 2001, 23-33.)

The communal nature of ubuntu leadership is also clearly visible in Mbigi's (2005, 218-219) list of key values of African leadership. These include, firstly, respect for

the dignity of others; secondly, group solidarity, i.e., an injury to one is an injury to all; thirdly, teamwork, i.e., none of us is greater than all of us; fourthly, service to others in the spirit of harmony; and fifthly, interdependence, i.e., each one of us needs all of us. All of these are group oriented and seem to reflect the basic tenet of ubuntu, “I am a person through other persons.” According to Mbigi, African leadership orients naturally toward Greenleaf’s description of servant leadership. Mbigi (2005, 219-223) lists six practices as definitive to the African leadership paradigm: listening, empathy, persuasion, healing, self-discipline and consciousness and these seem to lean rather heavily on Greenleaf’s (2003, 21-61) description of the leader as a servant.

The interviewees’ experiences about the current state of leadership provide one window to African leadership (table 8). In the first interview, the students were asked to describe their understanding of a typical current Kenyan leader and the state of leadership in the country in general. Together with the other questions, this belongs to the set of questions for analysing the students’ conceptualization of leadership prior to the course. When separated from other questions, it presents the students’ qualitative reflection on the current practical condition of leadership in the country. The presentation of these views may provide a reader important information regarding the students’ general starting point and thus help to understand the conceptual changes before and after the course.

Table 8. Comparison of the students’ comments from the current research with the Bolden and Kirk’s research (Bolden & Kirk 2005, 8)

The Current Research	Bolden & Kirk
<ul style="list-style-type: none"> • Dictator, not educated, bribery (Interviewee #2) • Money hungry, just talk a lot without keeping their promises (Interviewee # 15) • Tribal chiefs – not leaders (Interviewee # 10) • Selfish, not decisive, not honest (Interviewee # 13) • Greedy of leadership, want to be in leadership (Interviewee # 12) • Some of them are good, develop their place, help and reach even to the poorest person (Interviewee # 3) • Corrupted, underachievers (Interviewee # 8) • They are trying to bring improvement but there are many challenges (Interviewee #4) • They have a kind of animosity between them (Interviewee # 18) 	<ul style="list-style-type: none"> • Intimidating and inaccessible • Beyond my capability • Exclusive (for men, elders and the selected few) • Theoretical (aloof) • For senior people usually in politics or in work organizations • Being the best • About heroic individuals • Being obsessed by personal power • About personal gain • Influencing from the position of authority in the hierarchy • About dictating • About order and control • Too big a challenge for me, immobilizes me • Positional • About being structural • Individualistic • About setting rules • About the leader achieving • About conveying disconnected information

The left column of the table below provides in the form of an interview excerpts a short summary of the students’ understanding of leadership before the course. The excerpts present students’ understanding of the nature of practical leadership and the statements are thus empirically motivated and as such different from the students’ actual conceptualization of leadership per se. The noteworthy feature is the negative nature of the statements. This is not to claim that the students’ perception of leadership was completely negative. However, this summary exemplifies the students’ empirical starting point before the course. In comparison, the right column presents the findings of Bolden and Kirk (2009, 69-86) from a rather similar type of an inquiry.

The answers indicate that the students’ view of practical leadership is rather negative although not exclusively so as one should by no means overlook the positive comments. Bolden and Kirk (2005, 7) noted a similar feature among the participants in their research. Bolden and Kirk (2005, 78) concluded that the process of change in the participants’ understanding of leadership was characterized more by rejection of previous negative experiences than embracing new conceptions. The similarity between the two groups suggests that a similar process may have also taken place

among the students in this study. Meredith's (2006, 687-688) description, which comes from practical but seemingly well-informed sources, is rather similar, especially with regard to corruption, which according to him is quite prevalent among Kenyan government ministers and officials.

The students' rather negative views become perhaps more understandable through some statistics regarding Kenya. In 2006, Kenya was number 142 among 163 countries on the Transparency International's Corruption Perceptions Index, with a CPI score of 2.2 out of the maximum of 10. From the 1970s to 2000, the number of people classified as poor grew in Kenya from 29 percent to 57 percent. (Library of Congress Country Profile 2007.) In 2009 statistics, Kenya's current growth of population was 2.6 percent, life expectancy 54.2 years, Gross Domestic Product (GDP) USD 738 per capita, GDP growth 2.6 percent, and unemployment 9.8 percent (World Bank: World Development Indicators).

In summary, current African leadership reflects characteristics from all three periods. It is leader-centered and hierarchical, with position and authority as essential elements but with certain democratic aspects included. African leadership lays on a metaphysical foundation and emphasizes control and a power structure. All of these traits are already clearly visible in traditional African leadership understanding. The colonial/post-colonial period witnessed the introduction of mainly Western leadership thought that has introduced a variety of elements such as planning and goal orientation to the African thinking. African renaissance, on the other hand, has already introduced the traditional philosophy into theory creation in an attempt to make African leadership more respectful and responsive to the continent's own values and culture. Current African leadership should thus be seen as a mixture of traits from all three of the aforementioned periods.

It is also clear that African leadership is currently in a period of rediscovery, development, and self-determination. It lives in a promising albeit a tense time. As van Niekerk (1999) notes, African Renaissance does not have the luxury its European counterpart had in the late Middle Ages that took a century and a half to happen. Current challenges are too great and impending for that long of a period. The critique

presented from within and without the continent, the experienced discrepancy between the desired and actual state of leadership, and the domination of foreign cultures of the discussion and theory formation of leadership call for constructive responses. As leadership is in part a cultural phenomenon, Sub-Saharan Africa looks for leadership that she can call her own.

4 METHODOLOGICAL CHOICES

This chapter presents the issues most closely related to this research's methodology. This includes the foundational philosophical premises, followed by the explication of the methodologies used in this research, phenomenography and concept map. This is followed by the detailed explication of this research's implementation. In the last part the issue of trustworthiness is handled, first from the general perspective and secondly specifically the trustworthiness of this research.

4.1 Philosophical Premises

Before considering the specific methodological choices, this section attempts to make explicit the basic ontological, epistemological, and axiological foundations of this research by giving the reader the philosophical framework within which the phenomenon under investigation and its constitutive parts and other relevant factors are understood (Varto 1992, 30-37). Every scientific research is inevitably based on some basic philosophical assumptions (Sandberg 2005, 47). Due to the existence of a variety of views, and to a certain extent, mutually exclusive views of "being" or "reality" (ontology) and "knowing" (epistemology), these foundational orientations cannot be considered as given. These philosophical assumptions form the research's conceptual foundation and provide its basic direction. Lincoln and Guba (2000) include axiological assumptions (values), in addition to ontological and epistemological considerations, among the basic beliefs of a research (Lincoln & Guba 2000, 169). This seems natural, especially in relation to qualitative research in which axiological issues are considered a natural and an inescapable part of the research. The specific interest of the current research is in the ways the participants' conceptualization of leadership changes in an instruction-based setting and in the

cultural factors influencing this process. Consequently, this philosophical explication concentrates on ontological, epistemological, and axiological issues and thereby attempts to present a conception of a human being.

4.1.1 Ontology

Ontological analysis, i.e., deliberation of the existence, structure, and nature of being and reality (Raatikainen 2004, 11), determines and makes explicit the way the object and its nature is understood in the research. This analysis in turn serves as the basis for the proper methodological choices (Varto 1992, 30; Rauhala 1986, 8-11). The different scientific paradigms are based on different ontological beliefs as exemplified by Lincoln and Guba's (2000, 168) comparison of the positivist, postpositivist, critical theory, constructivist, and participatory paradigms. For example, the post-positivist paradigm represents the critical realist ontological stand in which reality is real in an objective sense, and this reality is likely though imperfectly apprehended. It thus views reality quite similarly with the positivist paradigm, but takes a more cautious approach to its understanding of reality. The participatory paradigm, on the other hand, holds to a non-dualist ontology that rejects the existence of two separated worlds (objective and representational) and understands reality as a single entity, cocreated by the human mind and the world. (Lincoln & Guba 2000, 168.)

The ontological base of this research is in the non-dualist and relativist phenomenographic ontology. According to this non-dualistic stance, the only meaningful reality to humans is the knowable reality, because human reality is always experienced, interpreted, or understood reality. The essence of reality and truth of something consists of the sum of all different experiences (Uljens 1992, 101). Reality is thus constituted in a person's conceptions through that person's experiences (Niikko 2003, 15). This approach thus rejects the dualistic idea of the existence of two worlds, a real objective world and a subjective mental representation or construction.

The rationale for this is that we are not able to describe a world independent of our description or ourselves, since in our experience and description the two automatically

become one. Thus the inexperienced world is considered meaningless, i.e. non-existent, to any human being. However, there is no claim that the natural world's or its objects' physical existence is dependent on human beings (Marton & Neuman 1996, 316-318.) In this one world, the subject (knower) and object (known) are not considered as being separated from each other, but rather connected through the relationship of experience (figure 8) (Uljens 1993; 1996). The uniqueness of this world is clear, as both the world and a human being would be different without the other (Marton & Pang 2008, 535). The relativistic nature of this non-dualistic stand is evident in the subjective and dynamic nature of experiences as people experience the world in a variety of ways, and in the way an individual experiences a change. Naturally, this relativism diminishes in the phenomenographical analytical process that considers individual views as one phase in the process, but ultimately concentrates on the collective understanding of the phenomenon. Thus from the individual's perspective the world holds in it simultaneously both subjective and objective aspects in one experience as illustrated in the following figure (figure 8). This means that in phenomenography conceptualization is not purely an individual mental phenomenon, but as combined with experience it is part of the non-dualist world.

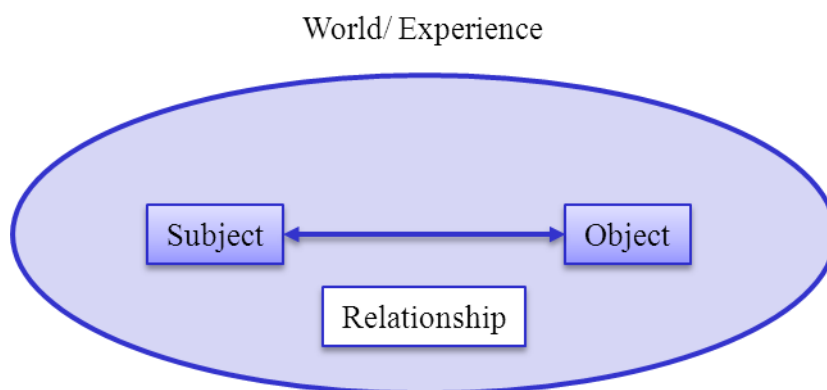


Figure 8. *The subject – object relationship in experience* (Derived from Marton and Neuman 1996, 315-334)

This non-dualism is also extended to human consciousness, which is understood as a single multidimensional entity: perception, memory, and expectation being separate aspects of the consciousness (Uljens 1996). In learning, a person's awareness about the phenomenon at hand changes. This serves well this research as the interest is in

how the students' conception of leadership changes, and not in the structure of memory or mental human functioning per se. As already stated, conceptual change from a phenomenographic viewpoint is considered as a change in the way a person experiences a phenomenon. It should be kept in mind that in phenomenography, the term "a way of experiencing a phenomenon" is used and understood interchangeably with such terms as perceive, conceptualize, understand, or making sense. As Marton (1997, 97) points out, this is not to deny the different nuances of these words but to point out that the limited number of qualitatively different ways a phenomenon may appear to people is independent of these nuances, and are descriptive of being aware of the phenomenon (Marton 1997, 97).

This ontological explication does not include leadership and conception, because both have been discussed already in their respective sections. Thematically it would have been appropriate to discuss the ontology of both in this section. However, this would have separated the ontological discussion from the analysis of the other aspects of these phenomena. In order to avoid unnecessary repetition in discussion, it was deemed preferable to discuss both topics in their separate sections, ontology included.

This research is conducted in an institution specialized in professional growth. Professional growth is a continuous learning process (Ruohotie 2002b, 9). Tuominen and Wihersaari (2006, 94-95) use education and profession-related conceptions in their description of the ontology of professional growth. In this division, the education part consists of conceptions related to education and personhood, while the profession part includes profession and competence-related issues. The general interest of the current research is in that initial phase of professional growth in which persons get a formal college education in order to acquire the basic qualifications and competence for their vocation. The specific phenomenon of interest, conceptual change in leadership, is understood in this research as belonging especially to the area of competence in professional growth. As the students' conceptions change, their competence is increased. However, the influence of conceptual change on personality and personal identity should not be overlooked, as they are due to change as a person's way of conceptualization changes.

4.1.2 Epistemology

Epistemology in general is about knowledge and meaning, i.e., their possibility, formation, justification, and sources. Epistemology is thus essential to science as the specific purpose of any scientific enterprise is always knowledge-related. Building on the understanding of the phenomenon under study as obtained by ontological analysis, epistemological analysis determines the methodological decisions. The three essential epistemological issues with regard to research are the acquisition, constitution, and truthfulness of meaning and knowledge (Sandberg 2005, 48). As with ontology, so also with epistemology the views of different scientific traditions vary quite remarkably from each other. Lincoln and Guba (2000, 168) describe the positivist tradition's epistemological position as dualistic/objectivist. Building on naïve realistic ontology, knowledge is a true representation of objective reality measured by the correspondence theory of truth. In contrast, constructivism is based on transactional and subjectivist epistemology in which individuals construct meaning and knowledge and truthfulness is measured by coherence, pragmatism, and consensus theories of truth (Tynjälä 1999). Due to their divergent characteristics, these two approaches provide a useful background for the following consideration of the phenomenographic epistemology.

African epistemological understanding has its own distinctive features that challenge the individualistic and exclusivistic notions of western epistemology (Higgs 2010, 2414-2421). African epistemology is based on an ontological interconnectedness that does not separate the natural and spiritual worlds from each other, as all individuals share the same vital power as their ontological foundation (Hamminga 2005, 57). On the basis of this unity, Nkulu-N'Sengha (2005, 40) argues for three categories of knowing: supernatural, natural, and extrasensory perception. African epistemology has thus a holistic outlook. It rejects the juxtaposition of knowledge and faith and reason and other faculties of knowing. It views human and cosmic realms as interconnected and rejects compartmentalization of knowledge (Nkulu-N'Sengha 2005, 42). Perhaps the main distinctive feature of African epistemology is its emphasis on the collective knowing subject. In African epistemology, knowledge is a form of togetherness. A group knows and an individual is one voice in a group.

Hamminga (2005, 59) compares African knowing collective to an orchestra in which no individual can play in isolation from others. Similarly, the process and end result of knowing are collective in nature.

This emphasis on collective as the knowing subject does not necessarily go against the common idea of individual knowledge being logically prior to collective knowledge (Audi 2005, 265). Hamminga's (2005, 57-61) emphasis seems to be on the ontological unity of all knowing individuals as well as on the value placed on community. On the other hand, collective knowledge cannot be considered solely an African phenomenon. Audi (2005, 265) refers to unrealized social knowledge as one form of collective knowledge not held by any individual. Nowak (2005, 117-128) argues for the existence of the collective knowing subject in Western science by using Marxism's epistemic perspective. According to Nowak (*ibid.*), collective should not be thought through the number of individuals, but through the characteristics the individuals are vested with. Thus the collective knowing subject is "the theoretical representative of a given social class" (Nowak 2005, 127). As conceptual change research has concentrated mainly on individuals as knowing subjects, the perspective of collective as the knowing subject seems to be largely uncharted.

The suggested African epistemology has some resemblance with a phenomenographic epistemological view. Both have a holistic outlook through their emphases on the ontological unity of the subject and the world, and on the collective. The phenomenographic understanding of epistemology is a natural continuation on its non-dualistic ontological stand. This means that meaning and knowledge are constituted in the ontological relationship between an individual and a phenomenon. Knowledge is defined as experience: an internal person-world relationship (Marton 1996, 176). Knowledge is not considered as being constructed by an individual, as this would imply a break of the above-described reality-constitutive relationship between subject and object. Meaning is not solely a quality of the object that should be explored as in positivist tradition. It is not either purely the result of mental activity of the subject as in radical constructivism, but a result of the relationship between the constitutive powers of intentional consciousness. Consequently, object and meaning cannot be separated from one another (Sandberg 2005, 48.) Thus experience occupies

a central position in phenomenographic epistemology. Regardless of the emphasis on personal experience, phenomenography cannot be considered as reflecting pure epistemological relativism, as the collective experience is viewed as descriptive of a phenomenon (Marton & Booth 1997, 108-109).

Intentionality as an essential characteristic of consciousness plays a primary role in acquisition and constitution of knowledge. Intentionality in this sense refers to the directness and relatedness of a person's consciousness or awareness. Consciousness is never empty or closed in a sense of being without content, but is always directed towards an object. In addition, it is directed at something in a special way, i.e., it is related to its content in qualitatively different ways. The modification of a semantic triangle by Uljens (1993) displays the importance of intentional consciousness (figure 9). As the figure below demonstrates, theory or term has no meaning in itself, but receives meaning from an intentional consciousness of an individual. Thus words do not have a direct access to reality, but only through the meaning-making activity of consciousness. Consequently, a theory of consciousness is of primary importance to epistemology (Sandberg 2005, 48-49.)

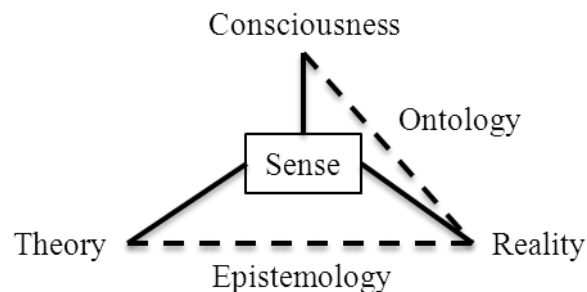


Figure 9. *Semantic triangle* (Uljens 1993, 134-147)

Epistemology is not without its challenges. Colliver (2002, 50), in his reflection of the radical constructivist position, points out that with the emergence of constructivism, epistemology in its traditional sense has lost some of its importance, because in radical constructivism there is no correspondence between knowledge and reality because reality is constructed by individuals. Uljens (1992) points out that phenomenography is also in need of epistemological clarification, as its differences with radical constructivism are not clear. As knowledge and meaning are constructed

in a person-world relationship, the only existing correspondence is with the collective experienced reality, not with objective reality. The rejection of the positivist dualistic ontological view of objective reality as separated from a knowing subject means that absolute truth is considered unattainable. Consequently, the theory of correspondence for the validation of truth is also rejected. As a substitute, Uljens (1993, 142) proposes the use of a somewhat similar method, i.e., a correspondence to human experience. As human experience is, in phenomenographic terms, the only knowable reality, this quite naturally also forms the basis for verification of knowledge.

Phenomenographic epistemology offers a seemingly fruitful approach to research in professional growth. Tuominen and Wihersaari (2006) highlight a few specific epistemological viewpoints that are useful in professional growth. For example, in the formation of knowledge, the individual and his or her interaction with others are central factors. This is because the nature of knowledge as a human phenomenon underlines the importance of an individual. Also, information and knowledge are not synonyms but rather different phases on the same continuum where information develops to knowledge through the individual's interpretative process (Ruohotie 1998, 9). However, an individual is not alone, since knowledge is created in interaction with one's environment and with other people. This interaction is not interaction of separate entities but sees the human being as being of one essence with the world as described in relational epistemology. This relationality emphasizes the process nature of knowledge formation as well as the role of environmental and communal factors, including organization. (Tuominen & Wihersaari 2006, 176-177.) All the themes that Tuominen and Wihersaari (ibid.) see as essential to the epistemology of professional growth are well represented in phenomenographic epistemological understanding.

4.1.3 Axiology

Axiology refers to the philosophy of aesthetics, ethics, and religion (Lincoln & Guba 2000, 169) or more concretely to values and to the classification of what is good and how good that something is (Schroeder 2008). The presence of values is evident in the

entire research process, but they seem to be especially perceptible in relation to the researcher and the results. As values influence a person's thoughts and actions, the axiological question in research concerns the impact of the researcher's personal values on the study. Within positivist and postpositivist science tradition, the influence of the researcher's values to research is viewed negatively as a result-distorting factor. Consequently, in the research process, their influence has been denied and attempts have been made to control and eliminate them methodologically even if their preliminary motivational role in relation to the selection of research topic is accepted (Lincoln & Guba 2000, 166; Ponterotto 2005, 131). According to Ponterotto (2005, 131), criticalists have opted for quite the opposite stand in which values are expected, and even hoped, to influence the participants, process, and results of research.

The interpretive view holds that total elimination of a researcher's personal values from a research is not possible. This is because the researcher is in such close contact with the participants of a study in order to understand and facilitate the expression of their experience that the values of the researcher are inevitably transmitted to the research. The biasing presence of congruous values is not necessarily only negative, as it enables the researcher to have a good rapport and understand the participants in a better way. To eliminate the negative impact of personal values the researcher is required to acknowledge their existence, make them explicit by description, and "bracket" them (Ponterotto 2005, 131-132.) This process is explained in the methodology section of this study.

Values are also related to the results of a study. Niiniluoto's (1997, 70-73) description of Habermas' view of knowledge-constitutive interests in sciences implies that these interests are axiologically loaded. These interests provide the value basis for sciences. According to Habermas, different conceptions of science have different interests. He identifies three such interests. First, technical interests are linked with and drive natural sciences, which provide knowledge and abilities to predict and control the natural environment. Second, practical or hermeneutical interests are the driving force in human arts that strive to understand cultural phenomena as well as personal self-understanding. Third, emancipatory interests control critical social sciences and

through critical inquiry reveal and enable people to get rid of oppressive societal practices.

In this research, primary value lies in the hermeneutical interest and it is to reveal and understand the different ways students' conceptions have changed. This is considered valuable because there is a qualitative difference in the ways of experiencing a phenomenon, including leadership (Marton & Booth 1997). The secondary value in this research is on emancipatory interests and pertains particularly to the information and knowledge produced about leadership, which enhance our understanding of leadership in general and in Africa in particular, and the positive contribution that African leadership can possibly have on other parts of the world.

Phenomenography is interested in different ways of experiencing a phenomenon, and as such approaches different descriptions as equally valid without any predetermined judgment of value. Thus, a scientific view of something is considered as one way among many ways of experiencing a phenomenon. Qualitative differences between different conceptions and valuing one conception over another are based on the pragmatic utility of conceptions (Uljens 1993, 142).

4.1.4 Conception of Human Being

Conceptual change belongs to the domain of learning and as such belongs to human sciences. For this reason, determination and explanation of the particular conception of human being assumed in this research is relevant and necessary. This research embraces a humanistic and a holistic conception of human being. Generally speaking, this means that a human being is considered to have inherent value and every individual is considered to be a unique person. The basic nature of human beings includes a capacity and ambition to learn and develop and humans use this capacity actively by making meaning as they experience the world. Humans are social beings to whom social interaction is not just an optional mode of living, but an inescapable part of their being, since all humans in their situationality are socially intertwined with other humans and their environment (see below). This social togetherness is also one

primary learning forum. Despite of societal and cultural boundaries, human beings have freedom of choice and are responsible for their decisions. These characteristics are germane to both learning and conceptual change.

Rauhala (1986; 2005) presents a more fundamental and explicit ontological analysis of human being. Rauhala's trichotomy is a description of the ontological dimensions of human being that provides a theoretical basis within which research on conceptual change may take place. Rauhala (ibid.) describes this holistic view as a monopluralistic conception of humans. This monopluralistic understanding, a kind of diversity in unity, describes a human being's existence as realization of three basic modalities: consciousness (psycho-mental existence), physicality (existence as organic instance), and situationality (existence as relationships to reality) (Rauhala 1986, 24-25). Each modality's existence is necessitated by the existence of the other two, and the separation of these modalities is possible analytically but not existentially (Perttula 1995, 16).

Physicality refers to human existence as an organic event or instance. According to Rauhala, the human organic system is sensible in the sense that it is functional. Physical existence facilitates the existence and function of the other two modalities. The other two are emergent qualities in the sense that although they are dependent on the existence of physical modality, they are irreducible entities in themselves (Rauhala 1986, 30-32; Perttula 1995, 17-18).

Situationality describes the human being as a relationally constituted creature. Rauhala (2005) describes situationality, or life situation, as formed out of various components, of which some are chosen while others are given. The former include components such as the chosen place of residence as well as the career one chooses to pursue, while the latter includes, e.g., one's genes and race, although with the advancement of science the group of given components seems to grow smaller. These components form the particular and unique situation to which consciousness and physicality is in relationship with. In situationality, all components have a relationship of influence to the human being and thus to the quality and nature of existence. However, these influences are not a determinative, dominating causal relationship, but

rather possibilities whose influence is dependent on the function of the other modalities as well. Our personal identity is expressly visible in this situationality and is under constant development towards an increasingly individualized identity.

Consciousness refers to the totality of the experiential aspect of human being. Rauhala (1986; 2005) describes its essence as noematic, i.e., consciousness hypostatizes or becomes existent in various expressions of noema. Noema is a meaning-giving mental entity, a structure through which consciousness has qualitatively different expressions of relatedness to phenomena such as believing, dreaming, knowing, feeling, and so on. These various forms of relatedness should be in a proper and balanced relationship to each other, without which some, e.g. feeling, may acquire a disproportionate position and express itself in a distorted consciousness. Experience and noema are inseparable fundamental units of consciousness and conscious events. A network(s) of meaning relationships forms our self-conception and worldview. These meaning relationships are created as noema in consciousness comes into a relationship with an object, and we understand the object in a particular way. The existing networks of meaning acquire an organized form that then serves as the basis and context for new experiences and meanings. Consciousness is thus continually developing and this always occurs through understanding.

It would be an exaggeration to say that Africa has its own peculiar conception of human being, but it is safe to state that the African understanding has its own peculiar characteristics. African philosophy of life and the African concept of human being are called “ubuntu” (e.g. Venter 2004, 149-160). The root of the word “ntu” refers to a person, and “ubu” to an abstract quality. Put together, “ubuntu” means humanity or humanness (Mnyaka & Motlhabi 2005, 215-237). According to ubuntu, a human being consists of eight core elements: body, life, soul, vitality, heart as the centre of emotions, intellect, ability to speak, and most importantly humanness. According to Le Roux, this humanness, or ubuntu, in turn, is characterized by qualities such as care, humility, thoughtfulness, consideration, understanding, wisdom, generosity, hospitality, social maturity and sensitivity, virtue, and blessedness (Venter, 2004).

According to the African understanding, the essential element of human existence is interdependency to one another. An individual is primarily seen as a part of a larger group of people, whether family, clan, tribe, or nation. In comparison to Descartes' individually oriented "cogito ergo sum" perspective, ubuntu, in Mbiti's words, emphasizes collectiveness by stating, "I am, because we are; and since we are, therefore I am" (Mbiti 2002, 224). Ubuntu is not primarily an attempt to prove human existence, but a qualitative description of what being human is all about. A human being is by nature a social being, since people are born into a particular community with a specific culture, and therefore social relationships are indispensable to all human beings. Thus, communality is not an accidental phenomenon or a solution for survival forced upon people by external circumstances but an ontological characteristic of every human being. In ubuntu, a community exists ontologically before individuality. Thus every person's humanity is bound to the humanity of others. The "others" consist not only of the living, but also of the unborn, the spirits of the dead, the earth, etc. (Mnyaka & Motlhabi 2005, 215-237.)

However, as Mnyaka and Motlhabi (*ibid.*) point out, in its emphasis on communality and reciprocity, ubuntu does not lose totally the idea of an independent individual human being. The characteristics of ubuntu are still characteristics of an individual. In ubuntu, a person is the centre of everything and all other things are understood in relation to persons. A person has an inherent value, regardless of race, gender, status, or education, and this value serves as the basis of equality between all humans. All people share a common humanity and its value and dignity. This common humanity forms the foundation for communalism, perhaps the most common peculiar feature of African life. However, in ubuntu, a person is not primarily an individual, but essentially a part of community. It recognizes the dignity and rights of an individual, but rejects individualism and always regards a person in relation to others in a society. (Mnyaka & Motlhabi 2005, 215-237.)

People exist truly only in relation to others. The self in African thought does not reside exclusively within a person, but also exists outside in reciprocity with the natural and social environment (Shutte 1993, 46-47). A community forms that framework within which an individual realizes his or her humanity in its wholeness.

Ubuntu offers an individual a place in which one becomes a better person and contributes to the growth of the others (Mbeki 2005). This interdependency is thought to remove the negative elements from collectivism. In ubuntu, being is more essential than having, because to be is to possess the power to do and to become. Thus, an individual lives in a community with other people, with the living and the dead, with the spirits, and with God. An individual is an essential part of a society, getting her or his identity in relation to it, functioning in it and being responsible to it. However, as Gyekye (1988, 31-32) admitted, this relationship between a person and the others is by no means clear.

This communal understanding of a human being is not without a certain set of requirements. First of all, it has to be kept in mind that the qualities of ubuntu are learned, not something a person is born with. As Mbeki (2005) argues, with ubuntu comes the responsibility of serving others. People with ubuntu are friendly, kind, and encouraging. They do not feel easily threatened, as their value is not measured only by their individual achievements but together with others. They are able to suffer together with others as ubuntu gives them power and pliability to share the common pain. Tutu's (1999, 32) statement, "a person is a person through other persons," points to the qualitative difference between persons with or without ubuntu.

The descriptions of ubuntu reveal that the principles and characteristics of ubuntu are not in any way exclusively "African" but universal. Sántti points to the basic assumptions underlying the current prevalent conception of culture that human beings are inescapably interdependent and become human within mutual relationships and that becoming human requires both teaching and learning (Sántti 2001, 59). Thus, the characteristics of ubuntu are common to postmodern thought. Therefore, it could be said that it is the application of these characteristics to the self, and to society, and to the relationship between the two, which is specifically African (Enslin & Horsthemke 2004, 545-558).

In this research, a human being is understood in this pluralistic yet unified sense with the specific African connotations of communality and interdependence. Conceptualization and meaning giving are not considered to be methodological issues

but ontological qualities that every human being possesses. Human beings are intentional, since they consciously construct conceptions about phenomena (Ahonen 1994, 121-122). This meaning giving ability is essential to human life as a whole. All three modalities are considered to be part of the process of conceptual change. The physical dimension, though not on the foreground, forms the necessary physical structure for the other two modalities. In addition, corporeality functions together with the other two modalities. As Halonen (1997, 60-94) argues, physical exercise and repetitive physical actions have bearing on our ways of observation and interpretation. Conceptual change includes mental, intentional, and meaning constitutive activities and as such belongs to the consciousness dimension. Again, conceptual change in an instructional situation is also a situational activity. In order for conceptual change to take place, the person's situationality has to provide an opportunity to experience change. In this research all three modalities are kept together. In line with phenomenographic ontology, conceptual change is not considered a purely mental activity, but it is rather thought to belong to the experience in which all three modalities are involved.

In phenomenography, individuals are viewed as “the bearers of different ways of experiencing a phenomenon, and as the bearers of fragments of differing ways of experiencing that phenomenon” (Marton & Booth 1997, 114). A person is thus an aggregate of experiences, or a person's awareness is a compromise of all experiences (Præmbling 1996). In relation to professional growth, Tuominen and Wihersaari (2006, 98-102) emphasize the role of two additional concepts, “personhood” and “identity,” as essential to the description of the concept of human being. These two concepts highlight the concepts of uniqueness and personal and social self-understanding to the topic under study. Despite of our social nature, all individuals are unique. On the other hand, we are not only experiencing objects and forming understanding of them but at the same time we formulate, individually and socially, an understanding of ourselves as well.

4.2 Phenomenography as a Research Method

Building on the above-described basic considerations, this section discusses this research's specific methodological choices. Methodological decisions are among the basic choices of every scientific research, and have specific importance because "each method makes the world visible in a different way" as Denzin and Lincoln (2000, 4) note. Naturally, these choices are influenced by a number of factors, such as the prevalent scientific practices and the researcher's personally held paradigmatic, ontological, and epistemological preferences. However, methodological choices are not primarily philosophical but practical. In order to do justice to the phenomenon under interest, the object of the research and the research problem should be the primary determinants of the choice (Metsämuuronen 2003, 208).

Conceptual change as an educational phenomenon offers various possible perspectives for research. A formal educational situation includes a teacher(s) and students, teaching as action, and the other influencing factors that all are worthy of research (Metsämuuronen 2006, 18). In this research the selected focus is on students and on the factors influencing conceptual change. The qualitative research paradigm offers a variety of specific research methods, such as content analysis, grounded theory, and phenomenology that could have been considered as suitable for this research. However, phenomenography was considered the most natural and suitable approach for several reasons. The choice was not based on the unsuitability of the other methods, but on the promising specific positive characteristics of phenomenographic approach.

First, phenomenography is by nature descriptive, explorative, and a theory formative approach. These typical features of the phenomenographic approach make it especially suitable to a basic research approach. Phenomenographic research is explorative and aims at description and understanding of a phenomenon (Cope 2004). Thus, regardless of the possible later practical application and value, its value is not measured by its applicability but its ability to explain and understand the world (Haaparanta & Niiniluoto 1986, 11). Also, theory formation is a natural part of any phenomenographic research, because phenomenography typically is data oriented and

formulates its own theory without being grounded on existing theories (Ahonen 1994).

Second, phenomenography's history and later development matches well with the research's general area of interest and the specific research problem. The origins of phenomenography are in the educational studies of the late 70's and early 80's. Although it has been used in different kinds of researches, phenomenography is particularly interested in learning and comprehension in an educational setting (Marton & Booth 1997, 111) and education related research has remained its specialty (Dall'Alba 1996, 7-8). Because this research's specific context is the college, and a formal educational leadership course, it seemed natural to select a research approach that has been used specifically in rather similar educational settings. The object of this research fits nicely with phenomenographic areas of interest. According to Larsson (1986), phenomenographic researches can be divided into four categories: subject didactic, measuring the effect of education, general pedagogic, and non-pedagogical researches (Häkkinen 1996, 16). This research's concentration on describing the students' expressions of their experiences of conceptual change thus belongs primarily to what Häkkinen (1996) calls studies measuring the impact of instruction, and thus fits well into the phenomenographic interests.

Third, and most important, phenomenography is not only, and not even primarily, a research approach, despite of its methodological characteristics. Since its origin, phenomenography has developed a specific stance concerning learning, and has specifically defined itself as a specific type of approach to conceptual change (Marton & Pang 2008). This combination of methodological and educational aspects offers an additional advantage compared to the use of any other approach.

Fourth, despite its seeming hesitation and reservedness to be identified as a method (Marton & Booth 1997, 111-112), phenomenography has been developed into a specific research approach with distinctive paradigmatic features as a form of qualitative research (Cope 2004, 7). These methodological aspects make phenomenography a viable option among qualitative methods.

Fifth, during its history, a considerable number of researches on conceptual change have been carried out within individual constructivist epistemological frameworks that have concentrated on the personal cognitive side of conceptualization. The phenomenographic view of learning differs from this considerably due to its non-dualist “human-in-the-world” ontological view of experience, which binds cognition and reality together. This offers a somewhat new approach to conceptual change and an additional option to analysis.

Lastly, phenomenography would seem to fit well into a cross-cultural research setting with its most common data collection method being the personal interview. This suits this research particularly well because Africa is traditionally an oral culture and a personal in-depth interview would seem to be more natural than, for example, a structured interview. Also, the phenomenographic interview allows culturally colored rich descriptions of the participants’ understanding without imposing unnecessary restrictions through a less natural form of inquiry. Furthermore, phenomenography seems to suit our purposes rather well, because our personally held basic ontological and epistemological presuppositions and those of phenomenography correspond to each other. Being faithful to these philosophical roots, phenomenography is specifically interested in the “second-order” perspective, i.e., it is interested in the students’ descriptions of their experiences or conceptions about reality. It thus refrains from commenting on reality itself, concentrating on the knowable reality: the only reality existing to us (Marton & Booth 1997).

The origin of phenomenography as a research method is usually traced to Gothenburg, Sweden, in the middle and late 70’s, when Ference Marton and his colleagues conducted research on learning. The early phenomenographic researchers aimed to study learning from the learner’s perspective in natural conditions with an open mind in order to explore the phenomenon of learning and specifically why some people are better learners than others. According to Marton (1981, 9), the most distinctive feature of early phenomenography was its concentration on studying peoples’ experiences and the variation of these experiences instead of attempting to study the sources of variation. Thus, by separating experience from the phenomenon itself,

phenomenographers were able to study peoples' thinking. The purpose was to describe, analyze, and understand these experiences.

Phenomenography is interested in peoples' conceptions. Conception is a dynamic entity; a complex construction based on individual concepts on the basis of which human beings behave and organize new information. Language is an essential part of concepts, cognition, and expression. Language as a means of expression of one's conceptions offers phenomenographers the easiest access to the desired information. (Ahonen 1994, 121-122.) Conceptions are constituted continually as people are in contact with the world. Phenomenographic research is specifically interested in people's descriptions of their experiences, as the only existing reality from phenomenographic perspective (figure 10). The undescribed world is unattainable; it becomes attainable through peoples' experiences, but changes at the same time to experienced reality.

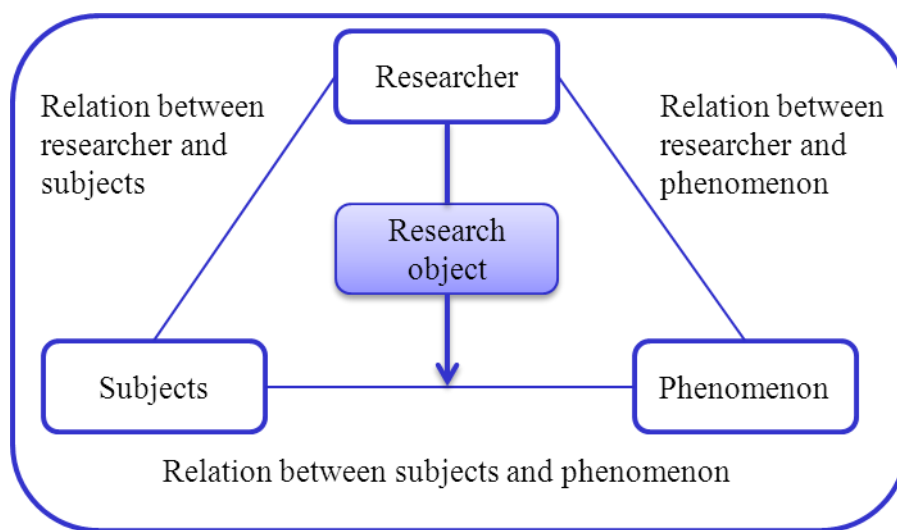


Figure 10. *Phenomenographic research interest* (Bowden 2005, 13)

It could be considered as somewhat erroneous and misleading to describe phenomenography as a methodological choice as some phenomenographers do not prefer to call it a method but an approach (Marton & Booth 1997, 111). However, as Cope's (2004) list seems to indicate, during its lifetime phenomenography has developed features distinctive to phenomenographic research, which separate it from other qualitative research paradigms. First, the second-order perspective, i.e.,

phenomenography does not aim or claim to describe phenomena in the world but rather makes statements about the participants' descriptions about their experiences in the world. Second, data collection concentrates on getting detailed in-depth verbal descriptions from the participants, usually interviewees, although as mentioned above, other data collection methods are allowed. Third, analysis is an extensive iterative procedure and takes seriously the apparent meaning of the expressions of the interviewees. The researcher is very much involved in the process through a close relationship with the data and thus has an influence on the outcome. Finally, outcome space, i.e., the result of a research, includes the minimal number of hierarchically organized categories expressing all the different ways the participants have experienced the phenomenon under research. (Cope 2004, 7.)

Theory, in the sense of an existing scientific model or explanation of a phenomenon, may function in different ways in various forms of research (see e.g. Eskola 2001, 136-137; Krippendorf 2004, 36-38). The present research follows a theory type referred to as grounded theory, which is typical for phenomenographic research in which the research process is data directed. This means that all the categories of description are derived from the interview data because the interest lies in the relationship between the phenomenon and the interviewees. The researcher's relationship to the phenomenon, including existing theories, is bracketed out for the analysis. Thus it may be said that phenomenographic research formulates its own theory in the form of outcome space. However, as Ahonen (1994, 123) notes, theory is always an inseparable part of a research process, and phenomenographic research is no exception. In general and also in this research this means that through the existing theories the researcher became familiar with the phenomena essential to the research. Thus the existing theories provided the researcher the needed pre-understanding in order that the research could be planned and directed properly.

Theory also helps to formulate the right kind of pre-planned questions, and helps with regard to interviews in analysing the answers and in formulating additional leading questions. In the analysis process, the researcher creates a new theory based on the data and in this process the data and theory are brought into a dialectical interaction with the existing theories (Ahonen 1994, 123). This means that in this research the

theories of conceptual change and leadership play a background role. In the analysis, and especially in reporting, the existing theories were used as a landscape for comparison and reflection.

4.3 Concept Map

Concept map is a second method of analysis utilized in this research. Concept map is a schematic tool for formal knowledge representation. It is visual language that explains and presents the meaningful relationships between the central concepts descriptive of a domain or a main concept (Akinsanya & Williams 2004, 43-44). The basic meaning unit in a concept map is a proposition, which consists of concepts, or nodes, connecting lines between the concepts, and the labels given to the lines. The concepts are the key ideas that describe the meaning of the domain or main concept. The lines display the linkages between the concepts. The labels given to the lines describe the nature of the linkage (Ruiz-Primo & Shavelson 1996, 570). The lines may be directed or undirected, named or even unnamed, depending on the nature of the relationship between the concepts (Meisalo, Sutinen & Tarhio 2000, 100). Novak and Gowin (1995) argued for a structurally hierarchical concept map, while for example White and Gunstone (2000, 15-20) do not consider hierarchy as a necessary characteristic of a concept map.

Concept maps were originally formed by Novak and Gowin (1995) and their structure and construction process reflect the cognitive and constructivist theories of learning. Since memory is considered to consist of interrelated and interdependent memory systems that process and organize knowledge into structured form (Novak & Canãs 2008, 5-8), the construction process assumes an active learner that constructs personal knowledge by linking new knowledge to previous knowledge (Grandy 1997, 43-46). The structure of concept maps reflects the ideas of hierarchically organized memory, interrelatedness between all concepts, and the organization of knowledge within a single domain around some key concepts (Ruiz-Primo & Shavelson 1996, 570).

Novak and Gowin (1995) developed the concept map as a helpful tool in learning and teaching. According to Novak and Gowin (*ibid.*, 5-62), the concept map is especially helpful in assisting students in finding the meaning in a particular learning material, in mapping students' previous knowledge, in providing a road map to learning, in interpretation of a text, and in providing a tool for the planning of research. Concept maps make concepts and propositions visible and thus help teachers and students to clarify the central concepts of the topic to be learned.

The nature of concept maps allows them to be extended beyond the learning situation and their use as analytical tools. Nicoll (2001, 861) describes the concept map as "a qualitative representation of students' conceptual understanding". Novak and Gowin (1995, 23) see concept maps as precise and open descriptions of an individual's concepts and propositions and therefore they consider them useful in making a preliminary mapping. Nakhleh (1994, 201-205) and Nicoll (2001, 863-875) both drew concept maps from student interviews in their researches. In this research, concept maps are used in the formulation of two summaries. The first summarizes the students' collective experience of the reasons why they took part in the leadership course, while the second summarizes the self-regulative actions performed by the students during the course.

4.4 Implementation of the Research

This section concentrates on the issue of how this research was implemented. Specifically it aims at a detailed presentation of data collection, participant selection, language, and the process of analysis. This detailed description aims at providing information, so that the reader may assess the choices made and evaluate the trustworthiness of this research.

4.4.1 Data Collection

In principle, the data collection method in phenomenographic research is not predetermined. One of the basic tenets of phenomenography is that regardless of the phenomenon or situation, a limited number of qualitatively different and logical interrelated ways of experiencing or understanding can be identified (Marton 1994). Consequently, the object of a phenomenographic research is to identify, understand, and describe the different ways the participants of a research experience the phenomenon under research. To accomplish this object, data may be collected by various methods, such as interviews, observations, written texts, or drawings. Phenomenographic analysis may also be applied to objects that are not specifically produced for research purposes, e.g., historical documents or pieces of art as these may express peoples' ways of understanding the world (Marton 1997, 99.)

The selection of a suitable method is naturally affected by the nature of the phenomenon under research and the purpose of the research. The aim of this research is to describe variation and changes in students' conceptualization of leadership. Thus both the nature of the phenomenon (conceptual change) and the purpose of the research (description) are by nature conceptual and therefore strongly connected to language. As this research is interested in others' descriptions of understandings (phenomenography's second-order perspective), it was important that the method would make the expression of experiences as easy and natural as possible for the participants, and still allow the researcher to capture the experiences as thoroughly as possible. On the basis of these criteria, interview as a linguistic performance was considered as the most appropriate method. Furthermore, the individual interview seemed preferable compared to the group interview, because it would ensure privacy of the expressed opinions and also reduce language-based problems. There was also one practical factor that supported the selection of the personal interview. One of the students' projects during the leadership course was to interview leaders. Thus, interview as a research method was familiar to them through practice and potentially helped them in their orientation to the interviews of this research.

One of the possible dangers in the interviews was that the students would consider unconsciously the interview situation as a test and attempt to give the “right” answer instead of reflecting on and describing their personal experience. However, it seems that this was not an actual problem as the research studied conceptual change, not leadership itself. This issue was also clarified in the pre-interview meetings between the researcher and the interviewees. During the interviews the students seemingly concentrated on the leadership concept and paid little if any attention to the change in such a way that they could be considered as providing misleading information.

This selection of the personal interview follows common practice, since the interview is the most common data collection method used in phenomenographic research (Ahonen 1994, 136). An interview was considered a suitable method because it provides an opportunity and a means to the researcher and the participant for a joint reflection on the interviewee’s implicit and unthematized aspects, and therefore makes them explicit, and thus explores the person’s awareness (Marton 1994).

The specific advantages of an interview to research are its situation and interviewee specific adaptability, its provision for asking clarifying questions, and its use of follow-up prompts based on the interviewees’ responses (Hirsjärvi, Remes & Sajavaara 2004, 194-195). However, Silverman (2005, 45) raises a concern about the nature of interviews; i.e., whether interviews provide us an access to the experiences themselves or should interviews be treated as narratives of those experiences. In this research as in phenomenographic research in general the narrative nature of interviews is recognized. In other words, the focus and reporting concentrate on descriptions of experiences, not on experiences per se.

The phenomenographic interview has been described in a number of ways. Marton (1997a) describes it as a dialogue in which the interviewer facilitates the thematization of the interviewee’s previously unthematized experiences. Somewhat similarly, Ashworth and Lucas (2000) call it a “conversational partnership” with a rather identical content with Marton (1997a). Despite its relatively free character, the phenomenographic interview cannot be classified as unstructured, or what Hirsjärvi et al (2004, 198-199) refer to as a free interview. As opposite to a free interview,

phenomenographic research typically has a predetermined topic, and as Ashworth and Lucas (2000) point out, the particular topic must be clear to the interviewer and made known to the interviewees beforehand, in order for an interview to be meaningful.

Åkerlind, Bowden and Green (2005) describe the phenomenographic interview as a semi-structured interview that has a number of pre-set questions combined with unstructured follow-up questions. Ashworth and Lucas (2000, 302-303) name a minimal number of predetermined open-ended questions, emphatic listening, bracketing of the interviewer's own concerns and opinions, and use of prompts as the specific characteristics of their conversational partnership. Thus there is a tension between the researcher's attempt to guide the interviewee to the desired direction and the freedom given to the interviewee to express freely his or her personal conceptualization of the issue.

Francis (1996, 38-42) has paid attention to the use of leading questions in a phenomenographic interview. Some leading is necessary for the interview to achieve its purpose, and the reporting should make these actions visible. In Kvale's (1996, 158) opinion, leading questions are necessary and may also enhance the reliability of an interview. Leading questions may be used e.g., to obtain withheld information or to test the reliability of a person's expressions.

The interview type used in this research is in line with the discussion above and especially with Åkerlind et al's (2005) description. The interviews had a number of open-ended premeditated questions that allowed for follow-up questions when needed. As both interviews had more than one sub-topic, the number of pre-set questions was naturally higher. The prompts used during the interviews were used for clarification of what the person had just stated. They were questions based on the information expressed by the interviewee or general requests to elaborate further if the interviewee's response was short or superficial. The specific questions used in this study were of both "problem-questions" and "what is X" types as named by Bowden (1996, 57-58). Some were straightforward requiring direct reflection; such as the interviewees being asked to give their definition of leadership. Some were more indirect, e.g., the interviewees were asked to name their favorite leader and provide

reasons for their selection. The rationale behind these questions was to encourage and inspire the participants to describe their understanding of leadership from different perspectives.

The number of premeditated questions, initial as well as prompts, was probably higher in this research than in many phenomenographic studies. This type of set-up was based on the information gathered from the pilot interviews. Bowden (2005, 19) recommends pilot interviews as means to familiarize the interviewer to interview “phenomenographically” and to test whether the planned inputs have their focus on the subject of the research and elicit desired comments on the intended topic. Francis (1996, 39) recommends the use of pilot interviews as a means to prepare beforehand follow-up prompt questions for the different directions that the interview may proceed in. Francis (*ibid.*) also suggests a preparation of a higher number of premeditated prompts as preparation for the different directions the interview might go.

In this research, the researcher conducted three pilot interviews. The first two test interviews were conducted with students of another college in Western Kenya. This first try-out concentrated partially on the preliminaries, i.e., how to best use the tape recorder, how to create a relaxed atmosphere, but also essentially on questions and questioning technique. After some modifications, a third test interview was conducted with a student from the same college as the actual interviewees but from a different class. As recommended (Bowden 2005, 19), similar types of people were interviewed in the pilot interviews as in the actual interviews.

On the basis of these three test interviews, some modifications were made to the questions. The main modification was the increased number of basic questions. In the pilot interviews, the interviewees’ reflections were relatively short and narrow. The clarifications for prompts were similarly rather limited. Because of this, the researcher decided to plan a larger number of questions beforehand. Language wise, they indicated that I should have a number of synonyms in stock for situations in which a particular wording might sound foreign.

The test interviews also indicated that sometimes it might be difficult to get the interviewees to talk freely and thus it was considered better to have questions at hand. This follows basically Francis' (1996) above-mentioned advice and prepared a number of leading prompt trails for enhancing thorough and comprehensive reflection, and for maintaining the focus of interviews on the conception of interest. The prompts used included phrases such as "what do you mean by that" and "could you please clarify further" in relation to some specific topic or word the interviewee expressed. The estimated effect of these prompts was longer and more precise explanations of the interviewees' experiences. Occasionally the interviewee experienced some frustration as the presented prompt was felt to be the asking of the same question that the interviewees had already answered. The pilot interviews were discarded before the actual interviews took place. All the interviews were conducted before the analysis was started in order to avoid the influence of the first interviews on the later ones (Bowden 2005, 19-20).

In sum, each student was interviewed twice. The first interview took place in late April or early May, before the beginning of the course, and the second interview was conducted at the end of the course in mid July 2006. The researcher conducted all the interviews. They were all conducted at the premises of the college, in a quiet peaceful place that offered a suitable environment for a private discussion and personal reflection, whether specifically conducted in the library, in the classroom, or in a sitting area. Female students were interviewed in open places, such as a lounge, in accordance with local cultural norms. All the interviews were conducted before the analysis was started in order to avoid the influence of the first interviews on the later ones. In the first set of interviews, the average length of a single interview was about 60 minutes. The duration was slightly shorter in the second interviews, an average length being about 50 minutes. The interviews produced all together 421 pages of transcribed text.

In the current research, the basic set-up of the research was closely connected to the college leadership course so that the themes of the interviews were clear. This was also explained twice, first during the initial request for the class to participate in the research and secondly at the beginning of both interviews. The participants seemed to

internalize this purpose, since their responses to the questions remained rather well on topic.

The first interview had a four-part structure consisting of personal, cultural, leadership, and learning questions. The opening part consisted of questions regarding basic personal information, such as their name and the area their home is located in. The purpose was to to recreate a conversational comfortable atmosphere for the rest of the interview. This was rather short, as the researcher had met all the interviewees already a number of times. The second was the cultural section. It included questions about tribal background, personally felt cultural affiliation, culture's meaning, importance, and its relation to learning. These questions were planned to provide information for the participants' cultural analysis.

The next was the main part of the interview concerning their conceptualization of leadership. The opening question for this section was "name a Kenyan leader whom you admire?" The purpose of this question was to lead the interviewees to reflect on leadership on a very personal level. Bowden (2005, 17) comments that direct "what is X" types of questions do not tend to provide as much varied descriptions, as people tend to revert to the commonly known theories. In the first interview these kinds of questions were purposely avoided and the questions presented to the interviewees were planned in such a way that they would give the interviewees a chance to reflect on their conception of leadership from various angles. Thus the opening question and the following additional "what" questions directed the students to reflect on their understanding of leadership and to describe their personal experiences as well as to reveal their underlying beliefs and motives. This initial question was followed by a series of probes based on the interviewees' answers, but also asking additional premeditated questions about leadership from different angles. These questions facilitated the interviewees' further reflection on the topic from different perspectives.

The fourth part aimed at understanding the interviewees' conceptualization of learning. This part was opened with a question "how would you define learning?" This was followed by other premeditated questions regarding the interviewee's style of learning, interests, reasons for studying for the diploma in general and the

leadership course in particular. There were also prompts asked based on the interviewees' answers. The purpose of these questions was to provide information for the analysis of the students' intentionality during the course.

The second interview had two parts, leadership and learning. The leadership section was opened with a straightforward "how has your understanding of leadership changed during this course?" question. This question was followed by a variation of prompts depending on the interviewee's answer. These prompts were partially prepared beforehand as recommended by Francis (1996) in order to be prepared for the different turns the interview could proceed in. The learning section provided information regarding their learning and self-regulation methods, whether their goals were fulfilled, their satisfaction with the course, and the like. This part provided information for self-regulation and intentionality analysis. There was no separate section for culture in the second interview, as the culture-related issues were considered to become evident within the leadership and learning questions.

In order to be able to lead the interviewees to share their experiences, the interview participants need what Ahonen (1994) calls an intersubjective trust so that the interviewee may speak without shame, fear or feeling of being interrogated. Interview is, at least potentially, a sensitive situation, since it assumes openness from both participants, but especially from the interviewee who is supposed to reveal his or her actual personal experiences. As a part of this intersubjective trust the researcher acknowledges his or her own presuppositions and is able to modify the questions and the approach during the interview if needed to maintain the integrity of the interviewee's experiences. Maintaining the trust and a genuine dialogue requires active listening by the interviewer so that the interviewee feels that he or she is not interrogated but a participant in a real conversation (Ahonen (1994, 136-141.) As Fontana and Frey (2000, 655) note that the easiness with which trust can be created depends also on the topic of the interview. In this research, leadership seemed to be such a neutral and general topic that no challenges regarding the intersubjective trust was detected by the interviewer or expressed in any way by the respondents.

The phenomenon under research was the change in the students' conceptions. This change was revealed both by the difference between the descriptions of the two interviews and the students' reflections during the second interview. During the second interview, the students were seemingly more reflective and their descriptions were verbally richer even on their pre-course understanding of leadership. Therefore, it seemed that the course had enhanced and encouraged the students to reason and reflect on their conceptualization of leadership in an in-depth manner.

4.4.2 Selection of the Participants

Selection of the participants for this research was done through purposive sampling (Patton 2002, 243). Phenomenographic research sampling should include as much demographic variation as possible, because the aim is to describe variation in experience (Åkerlind 2005b, 103-104). The following lines provide the rationale of sampling selection in this research.

Selection of the participants was guided initially through the researcher's interest on both intentional conceptual change and leadership (Metsämuuronen 2006, 45). Both of these interests arose from my personal experience and more specifically the challenges that I had experienced in teaching in different settings in Africa. In addition to this, the characteristics of the conceptual change process guided the sampling. Conceptual change research has established that change is difficult specifically because of a person's experience is based on intuitive knowledge. Combining this with leadership limited the sampling selection. Leadership as a topic is more appropriate only for those who are in some way personally involved in it, so the topic excluded young students in primary or secondary schools. On the other hand, people with personal experience but no training in leadership was potentially the most promising avenue of research, as such students' intuitive knowledge would be based on experience, not on previous learning. These two qualifications limited the age group rather extensively. Greater age diversity could potentially have provided new information, but would have caused changes to the above-described research aims.

Another qualification was to study conceptual change in a formal instructional setting. The fundamental issue in conceptual change is that it requires a formal instructional setting to assist the students in achieving conceptual change. Conceptual change is possible outside instructional settings, but it is not common due a lack of control of the setting and in this case in conducting research on it. Therefore, a formal instructional setting provided a clearly restricted research setting, considered appropriate for this type of monograph. Also, one part of this research is intentionality, and studying self-regulation and motivation seemed to require a formal setting for its study. For these reasons, a college class, which was taking an introductory course of leadership, offered a good target group for the present research as it provided a combination of both areas of interest.

The main reason for selecting the EAST students as the participants to the research was my familiarity with the college. I had visited the college compound several times during my time in Kenya and knew some of the faculty members personally. This and the positive response to my tentative inquiry made the final selection easy. Second, the EAST was also selected on practical grounds. The college was near enough, a mere 30-minute drive from my home. This was important especially in conducting the interviews. Third, the fact that the college was a Christian theological college was also considered a positive although not the determinative factor. Having worked in somewhat similar settings in East Africa for a number of years, this context was considered as a familiar cultural background that may prove helpful in interviews and analysis. This is in line with Robson's (1993, 194) recommendation regarding researcher's familiarity with participants' social and symbolic conventions. On the other hand, this religious character of the group of the participants should be understood against Kenya's general cultural background. In Kenyan context religiosity of some kind is quite natural part of common life (Gumo, Akuloba & Omare 2012) and thus it may be argued that a religiously oriented group does not deviate significantly from the majority. Without these factors, I could have tried any other college in Nairobi. Again, the number of the students in the class was good.

The group of 18 students was considered big enough to conduct a qualitative research and reach a point of saturation. On the other hand, it was not too big for interviewing

all personally and transcribing the interviews. A bigger class would have forced me to make some kind of selection, or to reconsider the issue of data collection to something more manageable with a bigger group. A class of this size gave me a chance to interview all the students of the class. The gender distribution could have been more balanced between sexes. On the other hand, leadership in Africa is still primarily patriarchal, and as such this group reflects the cultural context of the research. As Bowden (2005, 16) notes, a particular phenomenographic research is a creature of those people from whom the data has been collected. A different group would probably have provided a different outcome, but phenomenography is not meant to provide a large generalization of the results.

The leadership course was relatively short, consisting of 40 hours of class-room instruction, two assignments and the final exam. As noted earlier, conceptual change is often considered to be a slow and gradual process, although the courses are rather short, even in colleges. The selected course offered a basic set-up for observing what kind of changes in the students' conceptions of leadership take place within a short instructional period.

The participants were an entire class of 18 first-year college students at EAST. The group consisted of two women and 16 men. They were all adults between the ages of 19 and 30. They come from different tribal backgrounds: nine Kikuyus, three Masais, three Luos, one Luhya, one Taita, and one Kamba. None of them had studied leadership before, except that two of them had taken a short seminar in the past. Many of them had some experience in leadership from different contexts, such as school, local church, youth organizations, non-governmental organizations, etc. Most of them were involved in some kind of leadership activity during the course. None of them had studied education or learning, so the theory of conceptual change was unknown to them.

The first contact between the researcher and the class was in early spring 2006 as the researcher visited the class as a visiting lecturer. This was done in order to create an initial contact so that the students would be in a better position to make a decision regarding their participation in the interview. This also provided the researcher an

opportunity to observe the students and through discussions ensure that the students' level of English was adequate for the research.

Sometime after this, the teacher of the leadership course presented the idea of this research interview to the students. The purpose of this kind of indirect introduction was to ensure that the would-be participants would have a genuine opportunity to discuss the issue freely without any pressure from the researcher and to refuse up front to participate in the research if they so wished. All students agreed to participate in the research.

Sometime later, following proper protocol as explained by Kvale (1996, 153), the researcher went to the class and explained the topic and the purpose of the research, as well as the issues regarding confidentiality, the right to publish the results, and other relevant issues. This was followed by a free discussion in which the students had a chance to ask questions. After the discussion the participants' consent to participate was asked again and all of them agreed. This discussion was also a chance to create rapport between the researcher and the students. Casley and Lury (1987, 69) identify openness and frankness as means to rapport, especially in cross-cultural research situations. After the discussion, and during the next day, the researcher met personally with each student and agreed on the exact time of the first interview.

4.4.3 Language

Language is an inseparable part of culture, a communal tool that shapes and transmits a group's culture and therefore naturally pivotal to experience, interpretation, and expression (O'Hagan 2001, 153-164). In cross-cultural research, language presents an additional challenge because the researcher's first language is usually different from that of the informants. The central role of language is intensified in qualitative research using interviews, because of the dual role it plays as the method of data generation and as the result of the data as well (Hennink 2008, 24). This is true especially in phenomenographic research, in which the researcher should be able to guide the interviewees to reflect profoundly on their experience and express it

accurately. Finding the best possible solution is important in order to guarantee the maximum level of information and reflection and in order to minimize any kind of misunderstandings. Using translators in the interviews, hiring native interviewers, translation of interviews, or using bilingual researchers, are among the practical solutions used to overcome the challenge of language (Hennink 2008; Irvine, Roberts & Bradbury-Jones 2008).

According to Marschan-Piekkari and Reis (2004), the use of multiple languages may be useful. However, for this research, that would have presented the problem of either translation in the interview stage or in the analysis stage, and therefore after short consideration this solution was rejected. In this research, all interviews were conducted in English, which was the second language to me as well as to the participants, excluding one to whom it was his first language. Using a second language in research presents certain challenges, as Marschan-Piekkari and Reis (ibid.) have noted, because all participants' language proficiency should be good enough for the purposes of research. In this case English fulfilled this qualification.

English is the second of the two official languages of Kenya, Swahili being the first. Kenyans typically speak three languages, their tribal mother language and both of the official languages. Thus, English is commonly and regularly used by all of the students. Due to the diversity of tribal background, the students cannot use their first language outside their home area and therefore they are accustomed to using English and Swahili daily. As Mozaffar and Scarritt (2000, 239-240) note, European languages introduced by colonial rule have remained as the pre-eminent national language in many African countries. People in general are multilingual and the use of a particular language depends on the context and often a number of languages are used simultaneously. This should not be understood to mean that local languages have no importance to Kenyans, but rather to indicate and emphasize the strong position and wide use of English.

The role of English in the students' education was also strong. English was the language of administration and instruction in the college in general and also in this leadership course. The students conducted all the assignments in English, including

the one in which they interviewed a leader. They had also all used English in their preceding studies, either in primary or secondary level or both and were fluent enough in it. There were no language related refusals or even expressed hesitations to participate that can sometimes be the case, as Marshall and While (1994) point out.

Irvine et al (2008, 35-48) argue that in cross-cultural research involving diverse language speakers, the language preferred by the respondents or native or insider researchers should be used in data collection, transcription, and analysis. In this case the students preferred the use of the English language. This was confirmed during the introductory meetings with the participants. Marton and Tsui (2004, 24-31) argue that language is not only the means to represent an experience but it also constitutes experience and as such the two cannot be separated from one another. Thus it seemed important to allow the maximum connection between the experience of conceptual change and its consequent expression in the interviews. Because English was the language of instruction and thus that of experience, it seemed natural to use it also in the interviews and in the reporting of data. Due to this congruity, the use of English, though being a second-language to both the researcher and the participants, was not considered to present significant problems to this research, as the language of the experience and the language of the research are the same.

My personal proficiency in English results from living in a mainly English speaking society and conducting my work primarily in English but also in Swahili. Doing both my Bachelor and Master level studies in English had also increased my English proficiency. As Marschan-Piekkari and Reis (2004, 233) have noted, English is spoken with native accents that differ between countries. After a considerably long time spent in East-Africa, I was accustomed and adequately fluent in the local English dialect. Marschan-Piekkari and Reis (2004, 233) also mention the possible power-related problems in relation to language. If the researcher's language skills are superior, this may cause the participants to feel inferior which could possibly affect their answers. During this research, the level of English of myself and of the participants' seemed to be relatively on the same level and hence I did not recognize any power related problems.

The general issue of language also supported using semi-structured interviews as an appropriate method for data collection. Semi-structured interviews offer the flexibility in wording of questions if needed (Marshall & While 1994, 568). Semi-structured interviews also allow clarifying follow-up questions, in case of possible misunderstanding. However, this flexibility was used sparingly in this research. It was restricted to verbal synonyms and mutually comparable verbal expressions, and not extended, e.g., to the use of examples in questioning, as this would possibly have result in too much leading from the researcher (Marshall & While 1994, 569).

Fontana and Frey (2000, 655-666) mention trust and rapport as important relational factors in interviews. Lincoln and Guba (1985, 301) name prolonged engagement, including learning the culture, testing for misinformation, and building trust, as the criteria for credibility in a cross-cultural research. The time I have lived in East-Africa was considered as a sufficient time frame for establishing adequate familiarity with the local culture in order to have adequate understanding of the participants. Casley and Lury (1987) mention participation in communal activities as one means to create rapport, and Ryen (2002) identifies lack of comprehension and misunderstanding related to non-verbal communication as a problem in cross-cultural interviews. It seems that my relatively long continued living and working in East-Africa reduced these challenges, which usually affect cross-cultural research. During the pre-interview sessions with the participants, my position as a resident in Kenya and an employee of a church-based non-profit organization became known and seemed to assign me a status that removed much of the obstacles that persons staying only a short time would face. It also seemed that my ability to use Swahili confirmed to the participants that I had been in the country for a number of years and made it easier for them to trust me.

4.4.4 Analysis

Phenomenographic analysis is iterative by nature, proceeding in a spiralling manner from the whole interview data to a minimum number of categories of description. Every new step goes back to the interview data albeit from a new perspective (Roisko

2007). The iteration in its part ensures that the whole data is accounted for throughout the process and that the final categories describe the data faithfully. It is an inclusive rather than a linear process as the initially previous phases are revisited as the process proceeds. The iterative character of phenomenographic analysis resembles the traditional methodological hermeneutical principle in which the individual parts of a text are understood in the initial anticipated meaning of the whole. Consequently, the acquired new understanding in turns affects the interpretation of the whole and so the spiralling process continues, as the understanding grows deeper (Sandberg 2001, 9-26.) In theory, the interpretive process may continue forever, especially in the light of the relativist ontology. In practice, however, the analysis ends when a sensible meaning has been achieved, i.e., when all the intended meanings are included and there are no inner contradictions (Kvale 1996, 47). The analytic process proceeds from the individual interviewee's particular statements to increasingly abstract categories of description focusing on the complete thoughts, not on individual words or sentences (Huusko & Paloniemi 2006).

Åkerlind (2005a) identifies relatedness of meanings, awareness, context-sensitivity, interpretive focus, collective experience, and stripped descriptions as the specific features of phenomenographic analysis. The different meanings emerging in the research are all related to each other, but individually each meaning is understood to be only a fragment of the whole phenomenon. Therefore, the different ways of experiencing a phenomenon are categorized according to the displayed awareness of the key dimensions of the phenomenon. The experiences are considered to be context-specific, and an individual may experience the same phenomenon differently when the context changes. The analysis aims to describe various differences rather than explain the causes for these differences and the analysis aims at describing collective, not individual experiences. This means that the interviews are analysed and the results are drawn inductively from the students' answers in the interviews. In inductive analysis, categorization and reasoning is based on the observations and interpretations made by the researcher proceeding from single cases to common categories. Finally, the "stripped" descriptions mean that the descriptions concentrate only on critical features of the phenomena at hand, leaving out minor variations in the experiences. (Åkerlind 2005a, 6-8.)

Descriptions of the specific phases of phenomenographic analysis process vary to a certain extent. Thus, for example Roisko (2007) has a five-step process, while Marton (1994) a six-step, and Sjöström and Dahlgren (2002) a seven-step process. However, the differences are merely terminological or result from the particularity of the description, for the key elements remain the same for all. Thus Roisko (2007) includes bracketing into what Marton (1994) calls an immersion phase, and even Marton and Pong's (2005) two-stage analysis still holds on to the same principles and steps of analysis, although identifies only the two key issues in their process description. The analysis and its presentation of this research follow Marton's (1994) six-phase process (figure 11).

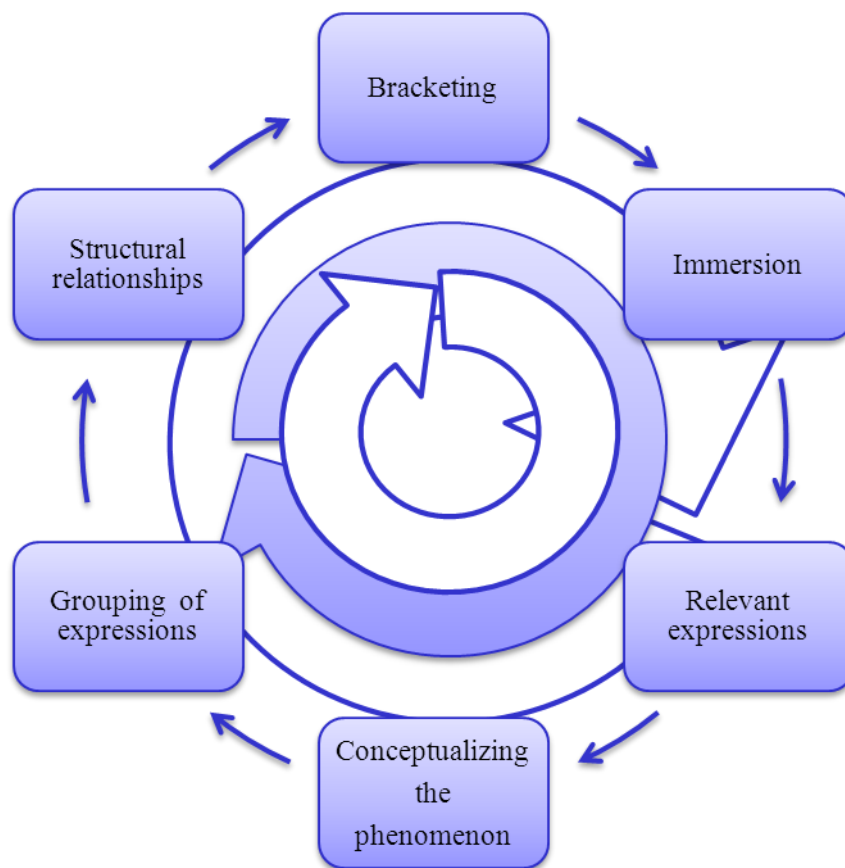


Figure 11. *The six steps of phenomenographic analysis (Marton 1994)*

Figure eleven above attempts to capture the process of phenomenographic analysis used in this research. The texts identify the distinctive steps taken. The circling arrows point to the spiralling process of analysis, while the overlap of the arrows indicates

revisitation to the previous steps while the process proceeds. The spiralling proceeds from the edge to the centre, indicating the narrowed-down nature of the process from the consideration of all relevant single statements to a few categories of description. Finally, the circling toward the centre point reflects the point of final meaning reached.

The initial bracketing of the researcher's presuppositions and previous understanding of the phenomenon forms a natural starting point, although the bracketing continues throughout the process. Naturally the interpreter does not enter into the task with an "empty head", but with certain history, and this must be recognized from the beginning of the research (Gadamer 2004). Bracketing enables the researcher to focus exclusively on the data (Marton 1997). Although a researcher without any presuppositions sounds ideal, the practical impossibility of this kind of existence limits the bracketing to practical steps to ensure that the final results describe the interviewees' conceptions, not of the researcher's (Ashworth & Lucas 2000). There are two specifically phenomenographic forms of bracketing, Ashworth and Lucas (*ibid.*) are specifically concerned about the data orientedness of the research and thus recommend the bracketing of the goal of the research. Bowden (2005, 17) emphasizes specifically the bracketing of the structural relationships between the categories of description, because this involves the researcher's way of seeing the phenomenon, and should be postponed until the categories of description have been formed.

Ashworth and Lucas (2000, 300-307) identify nine practical steps, which should help the researcher to bracket personal presuppositions and achieve emphatic understanding. The nine are: broad enough definition of the phenomenon under investigation, neutral selection of the participants, the selection of a data collection method that allows maximum freedom for the participants, time and freedom of reflection for the participants, the researcher's interview skills, accurate transcriptions, emphatic understanding during the analysis, avoidance of premature closure of analysis, and clear reporting of the analysis. Ashworth and Lucas' (*ibid.*) list thus covers the entire research process, not just the analysis. This emphasizes the importance of bracketing throughout the research.

In this research, the practical steps taken to ensure the maximum presentation of the participants' life-world were as follows (the steps that have been already described in other sections are not repeated here). In the beginning, the general objectives of the research were explained to the participants but without any reference to a particular understanding of either leadership or conceptual change. From the researcher's personal perspective, there was no prior definition of conceptual change or leadership, and a conscious effort was made to maintain an open mind throughout the entire research process. The specific meaning of the two conceptions was thus left open. During the analysis, all comments referring to leadership were notified and categorized initially. Determining which ones were truly irrelevant was made after the repetitious rounds of analysis. The researcher's interviewing skills should be under continuous review. The pilot interviews tuned me into doing phenomenographic interviews. The transcriptions included indicative comments when a participant used irony or some other kind of expression that mere words do not necessarily bring out. As I conducted and transcribed all the interviews personally, this was relatively easy. Awareness against importation of personal presuppositions during the analysis was maintained through the repetitious exercise of reading and rereading until all initially meaningful comments were sorted out. The formulation of the structure of the categories of description was done last, and even after this the transcripts were checked in order to ensure that the categories match the expressions of the students. This description of the process in this monograph is considered to be detailed enough for the reader to evaluate the bracketing and empathy achieved.

The bracketing was followed by my immersion into the data, although it was my experience that the two overlapped considerably. The immersion phase helped in the bracketing of personal opinions as reading the transcriptions led me to focus increasingly on the students' expressions. In other words, the emphatic attitude that refers to detachment from the researcher's personal life world and requires the researcher to get fully engaged and to show deep interest with the students' life world materialized at this time (Ashworth & Lucas 2000). This is a process of reading and rereading, in which the researcher becomes familiar with all the individual interviews (Wood 2000, 79). I attempted to avoid any decisions or conclusions at this time. I took this step as a kind of preparatory phase in which I tried to fully understand the

individual participants' expressions as well as their way of expression and thought patterns. It also became clear at this point that Åkerlind's (2005b, 116) recommendation that the researcher should personally transcribe the interview data was correct. This was because personal transcription served as an additional part of the immersion phase. On the other hand, the reading of the transcript during immersion reminded me of the discussions, and occasionally I returned to the tapes and relistened to the original discussion in order to check the precise meaning of some expressions. Naturally, the bracketing concerns both leadership and conceptual change, as both of these were analysed in this research.

In the next phase, I started to identify the relevant data from the rest (Marton 1994, 4426). This is the first way of reducing the data. Also, as the interviews had more than one topic, this step included a separation of the various topics from one another (Marton *ibid.*, 4426). During this phase, I worked with individual transcripts. The precise meaning of expressions is dependent on their original context, and thus the initial judgment of relevance must be done within individual transcripts. As I had two transcripts from each participant, I worked one student at a time, reading first the transcript of the first interview and then of the second, paying attention to what each one had said about leadership. The reading and analysis was guided by the question "what do the participants say about leadership?" I purposely kept the question presented to the data rather open to avoid any hasty misjudgement regarding what is truly relevant and what is not. At the initial part of this phase I merely attempted to identify and highlight the parts that are at the very least possibly relevant to the study. After the first reading, I started to highlight the comments that seemed to express something about a particular student's understanding of leadership. At this point I did not consciously pay attention to the changes that had taken place, but worked only on the expressed statements. Thus the analysis of conceptual change was postponed at this point. During the re-readings, I continued the scrutiny of the expressions, sorting out the statements that at the beginning seemed potential, but proved to be irrelevant.

The fourth phase is conceptualization of the phenomenon, in our case leadership. This is what phenomenographers call the referential or the meaning dimension. The guiding question at this phase was "what are the different ways in which the students

experience leadership?” (Pang 2003, 147). During this phase, I started to work with the whole data, leaving aside the individual transcripts. Naturally, due to the iterative nature of the analysis, this “leaving aside” should not be taken literally as in number of cases the scrutiny of the referential dimension forced me to return to the individual transcription for rechecking. This phase involved a repetitious work of reading, comparing statements, and arranging the transcription excerpts into groups. The rereading and rearranging is natural to the hermeneutical process, as in it the interpreter’s changing awareness changes and a change in an individual part may change the interpretation of the whole as well (Marton & Booth 1997, 134).

Marton (1994, 4426) refers to two possible ways in which referential dimensions might be present in the transcripts, in other words, the difference between the ways of expressing and ways of experiencing. Two different expressions may express two different meanings, or two expressions, which are different on the word level, may actually refer to the same meaning. Thus the analysis does not concentrate on individual words or ways of expression, but on the purported meanings of the expressions. The two sets of transcriptions, i.e., the first and the second interviews, formed their own pool of data. The first dealt with the way the participants experienced leadership before the course, while the second described their experiences after the course. The course, and possibly the first interview also, had seemingly enhanced the students’ capability of reflection. This meant that the second interview transcriptions included material also for the first pool of meanings. This was to be expected, as the first question of the second interview, “how has your understanding of leadership changed during the course” led many to restate their earlier conception. Thus the first pool of meanings received excerpts also from the second interview. At the end of this phase, I had all the relevant expressions grouped together with each group expressing a different way of experiencing leadership.

The previous step leads naturally to the fifth step, which consists of grouping the different expressions into various categories. At the beginning of this phase, I did not have any predetermined groups to start with, but rather started to form the groups on the basis of the data. Initially, I grouped the expressions into different groups even if the difference between that group and another group was minimal. By doing this, I

tried to ensure that all nuances of meanings were maintained. As the process continued the number of groups started to grow smaller from the initial 47. As Marton (ibid.) states, reflecting the hermeneutical principle, the grouping takes place in relation to two contexts; first, what all participants have stated, and second, what an individual participant has stated.

The final phase of analysis was the identification of the structural dimensions. Structural dimension refers to the discernment of the whole from the context and to discerning the parts and especially their relationship to one another (Marton & Booth 1997, 87). The assumption of structural relationship, i.e., that all the various referential dimensions should be somehow related to each other, is natural because various meanings are dimensions of the same phenomenon. The guiding question at this phase was “what are the critical distinguishing features in each group?” Together with the previous steps this part of the analysis process leads to the formation of final categories of description and the outcome space. Following Bowden’s (2005, 19-20) advice, all the interviews were conducted before the analysis was started in order to avoid the influence of the first interviews on the later ones.

The above-described process covered the analysis of experiences of leadership in both interviews. The resulting combined outcome space reveals the changes in the participants’ conception of leadership. Phenomenographic research is interested in presenting the ways of experiencing. However, phenomenographers also identify different levels of learning (Entwistle 2007, 129). This is in line with the constructivist conceptual change research in which the nature of changes is essential, because not all kinds of changes are considered as conceptual change per se. For this reason, it was considered interesting to analyse also the types of changes that the students experienced.

This part of the analysis followed essentially the same six-step process of analysis described above, but now presenting the questions about the change to the data. Because the process is the same as above, a short explication is considered sufficient for this part. The pool of data included the comparison of the students’ experiences before and after the course, as well as their specific reflection on the personal level

changes during the second interview. The types of questions presented to the data were: “what does the data indicate about the change,” “what different types of changes have the students experienced,” “what are the focal points in these different ways,” and “how are the types of changes related to each other?” Guided by these types of questions that were presented to the data at different points, the analysis proceeded in the same manner as described above. The analysis resulted in the outcome space presented in the results section. This part included an analysis of changes in leadership-related conceptions in the students’ experience of leadership including worldview and cultural conceptions.

The final part of the analysis concentrated on intentionality. This part included a formation of two concept maps. This formation was achieved by following Trochim’s (1989, 2-14) six-step process with some modifications. Trochim’s (ibid.) steps include preparation, generation of statements, structuring of statements, representation of statements, interpretation of maps, and utilization of maps. The modification was necessary as the concept maps were created solely by the researcher, and not with the participants. Thus the concept maps represent the researcher’s analysis of the students’ expressions.

In this process, the preparation that in Trochim’s (ibid.) model includes participant selection and focus creation, took place in the earlier steps of the research as explicated above. The same applies to the generation of statements that was done through interviews. The structuring of statements followed basically Elo and Kyngäs’ (2007, 108-111) description of the inductive content analysis process, albeit with some modifications. As Elo and Kyngäs (ibid. 109) note, the key feature of content analysis is classification of statements into smaller content categories. Elo and Kyngäs (ibid. 110) identify open coding, coding sheets, grouping, categorization, and abstraction as the steps of inductive qualitative analysis. In this research this process was followed with some modification. The relevant statements were selected from the interviews and marked by notes as initial groups. Selection and coding was conducted in iterative manner, and the grouping together of similar statements followed the coding. As Elo and Kyngäs (ibid. 111) point out, grouping includes the comparison of

different categories, not only the placing together of similar statements. The next phase is abstraction. These are general descriptions of the formed categories.

The presentation of the results is, as is often the case with content analysis, in the form of concept maps. In the process, two concept maps were formed. The first included drawing a collective level concept map of the students' goals prior to the course. The collective level displays the summary of the whole class that can be compared to the students' self-regulative actions during the course. The second concept map presents the students' outcome expectations. Together these two concept maps present the students' orientation to learning goal wise.

The next phase included a simple collection and analysis of the students' self-regulative beliefs and actions. These are combined into a number of tables and the expressions are also almost directly derived from the interviews. This simple mode of presentation was deemed sufficient and adequate for their purpose as these summaries serve two purposes of excerpts of the statements and grouping the similar statements together.

4.5 Trustworthiness of this Research

Good quality is an essential feature of every scientific research. Generally this quality has been understood as trustworthiness of the whole research, and especially of its results and consequent epistemic claims. Within positivist and postpositivist scientific paradigms that rely on some form of realistic ontology and objectivist epistemology, trustworthiness of a particular research means that the results must correspond with the truth, be free from any influence from the researcher, be generalizable to different settings and people, and replicable by other researchers (Lincoln & Guba 1985, 294-327). In general, internal and external validity, reliability, and objectivity have been the dominating practical criteria for determining the trustworthiness of a research (Metsämuuronen 2006, 17, 56-60) and these have acquired well-established meanings.

As an interpretative research approach, phenomenography approaches the issue of trustworthiness from the wider framework of postmodern scientific tradition. Phenomenographers have increasingly addressed the issues pertaining to the trustworthiness of a research, although no generally accepted terminology or specific criteria have yet been established. Terminological diversity is evident as some like Marton (1994, 4424-4429; 1997, 95-101) Sandberg (1996, 130-140), Åkerlind (2005c, 329-332), and Roisko (2007, 217-229) have chosen to use the traditional terms of validity, reliability and generalizability with specifically phenomenographic definitions. Others like Collier-Reed, Ingerman and Berglund (2009, 339-355), and Sjöström and Dahlgren (2002, 339-345) have adopted a terminology in line with Lincoln and Guba (1985) and thus have distanced themselves from the more positivist notions of the criteria.

Somewhat similar diversity is evident also in relation to the criteria for establishing trustworthiness. Some have focused on reliability (see e.g. Marton (1994, 4424-4429; 1997, 95-101) as the most common and important criterion in social sciences. This has produced solutions like interjudge reliability (Johansson, Marton & Svensson 1985, 251), and Sandberg's (1996, 130-140) reliability as interpretive awareness. Cope (2002, 5-16) combines reliability and validity and suggests structure of awareness as the analytical framework for ensuring both validity and reliability. Green (2005, 32-46) uses rigour as a comprehensive term for trustworthiness. Ahonen (1994) sees the trustworthiness of phenomenographic research and its results depending on two things, genuineness and relevance of the data and the categories of description, rather similarly with Francis (1996).

According to Sandberg (2005, 58), the main issue of validity is the truthfulness of the researcher's interpretation, while reliability relates to the procedure of how to achieve these truthful interpretations. To meet these requirements, Sandberg (*ibid.*, 41-68) has proposed communicative, pragmatic, and transgressive validity, reliability, and interpretive awareness as suitable criteria and means for justification of knowledge in interpretive approaches in general, phenomenographic research included (table 9). These criteria have been used in phenomenographic studies (see e.g. Åkerlind 2005a; Roisko 2007), and are applied in this research. It is somewhat regrettable that

Sandberg (2005) among a number of other researchers uses the traditional positivist terminology in his discussion on trustworthiness in phenomenographic studies that belong to the interpretive research tradition. Naturalistic terminology would seem to imply more accurate epistemological presuppositions underlying the development of specific criteria. On the other hand, the problem is more ostensible and cosmetic, as it must be recognized that the terms have been given such a distinctive meaning that there is not much room for confusion.

Table 9. *Criteria for trustworthiness* (Sandberg 2005, 41-68)

Criteria for Trustworthiness		
Communicative validity Establishes the coherence of the interpretation	Pragmatic validity Establishes the agreement between verbal expressions and practice	Transgressive validity Establishes an open interpretative framework
<u>Community of interpretation</u> -Understanding between the researcher and the participants about the task at hand	<u>Follow-up questions</u> -Ask follow-up questions to tie the interviewee's statements to concrete situations	<u>Awareness of the codes of interpretation</u> -Use irony to interrupt the present interpretation
<u>Coherent interpretation</u> -The principle of hermeneutical circle	<u>Test through interpretation</u> -Observation of an interviewee's reaction to a specific interpretation of statement	<u>Search for differences and contradictions</u> -Using alternative perspectives of interpretation for cross-checking
<u>Discussion with other researchers</u> -Intersubjective judgment about the knowledge claims	<u>Participant observation</u> -A real life observation of the participants in association with the interviews	<u>Challenging prevalent scientific framework</u> -Recognizing and using female imaginary as against dominating male imaginary
	<u>Practical use of interpretations</u> -Recontextualization of the findings into practice	

Sandberg (1996, 138-139; 2005, 59-62) suggests the use of phenomenological epoché as a five-step strategy to ensure reliability (table 10). These steps should enhance the possibility that the researcher's subjectivity has been controlled throughout the research and therefore justify the expressed knowledge claims. This attempted control of subjectivity does not mean minimizing it, which would be a foreign idea to qualitative research, but rather ensuring faithfulness to the interviewees' conceptions. These steps are also inherently related to Sandberg's (2005) three-part criteria for validity as to how community, pragmatic, and transgressive validity may be achieved.

Table 10. *The steps of epoché* (Sandberg 2005, 60-61)

Step	Action
1	Orientation to the research object -Being open to all variations of how the object of research appears throughout the process
2	Description of what constitutes the lived experience -Concentration of "what" and "how" instead of "why" enables a full description of the object
3	Horizontalization -Treating all aspects of the object with similar importance
4	Search for structural features -Checking the initial interpretation through imaginative variation
5	Using intentionality as a correlational rule -What the participants experience as their reality -How they experience that reality -Integration of the "what" and "how"

Sandberg's (ibid.) position correlates with that of other researchers. Kvale (1996, 235-236), who in his discussion of qualitative research in general, emphasizes trustworthiness of the entire research process – including interviewing, transcribing, and analysis – instead of concentrating on the reliability of a particular part of the process. Åkerlind (2005c) takes a similar stance. Following Marton's (1994) argumentation that the results do not need to be replicable but identifiable, Åkerlind (2005c) proposes a full detailed description of the interpretive steps taken as a form of

reliability. This account should include an adequate number of examples of transcriptions in order for the reader to be able to trace and evaluate the process. Interpretative awareness means that the researcher controls and checks his or her interpretations throughout the research process including the setting of the research question, selection of the participants, data collection and analysis, as well as reporting (Sandberg 2005, 59).

Sandberg (2005) sees communicative validity checks as taking place in three separate phases in a research: during the interviews, analysis, and results. During the interviews a “community of interpretation” should be established, i.e., establishing a mutual understanding and clarity between the researcher and the participants (interviewees) about what is taking place during the interviews. Sandberg (ibid.) includes into this a clear expression of the purpose of the research and a dialogue type interview. In this research both of these qualifications were fulfilled as the description above presents.

Language wise, during the interviews some students used some helping Swahili words, such as “yaani” which means “that is” or “I mean”, or “na” which means “and”, but due to the researcher’s ability to understand Swahili there were no problems experienced related to such usage. Also, the researcher twice used some Swahili to make sure that the exceptionally short answers were not because of lack of understanding the language. In both cases the problem was not the language but the interviewees’ search for a more proper specific expression.

During the interviews, the dialogue type of discussion proved to be challenging to one student due to the student’s conception of leadership. According to the student’s culture, a person should not criticize one’s leader(s) publicly. Consequently, the student did not feel comfortable to reflect on or express negative aspects of leadership if the discussion proceeded towards a certain person in, or office of, leadership. In this case this type of limitation concerned only concrete examples and did not seemingly limit the student’s theoretical reflection otherwise.

During the second phase, i.e., analysis, Sandberg (ibid.) sees communicative validity meaning coherence of the interpretations of the data. A circular relation between the parts achieves this coherence and the whole following the basic principles of the hermeneutical circle in which parts and the whole define each other. In this research, the normal phenomenographic analysis process was used in which the statements are first interpreted in their immediate context and the context of the particular transcript as a whole. After this the statements are analysed in relation to other transcripts by grouping similar statements together. The iterative nature of the process means that the earlier steps are repeated during the process. Maintaining coherence throughout this process leads to maximized coherence of the analysis' final form and to enhancement of communicative validity.

The third way of communicative validity is to allow other people to check and judge the validity of the results. The possible people are other researchers and experts of the field under study, interviewees, other members of the population represented by the research's sampling, and the intended audience of the results (Åkerlind 2005c, 330). This form of communicative validity was not used in this research for the following reasons. First, the interviewees were not asked to judge the results because during the analysis process the individual interviews were analysed also together and thus the results become unrecognizable to the interviewees. Second, due to the cross-cultural nature of this research the seemingly best judges would have been people from similar situations as the interviewees but it was too costly to travel to Kenya and organize a seminar for this purpose. Third, this was not deemed necessary due to the availability of the other approved methods for ensuring validity.

Sandberg (2005) sees pragmatic validity checks as additional tools for increasing validity together with the communicative validity check. The pragmatic validity check aims at checking whether the statements made by the interviewees actually match with what they do in practice. Sandberg (ibid.) identifies several ways of checking pragmatic validity: using follow-up questions in interviews that are embedded in concrete situations, expressing an interpretation of the interviewee's statement and following his or her reaction to that, and participant observation and using the findings in practice. In this research the first two ways were used during the

interviews. Some of the pre-planned and also the follow-up questions were very practical, such as, “how does this change of concepts change your practical leadership” and “how have you put what you have learned into practice.” These questions forced the interviewees to reflect further on the change in very practical terms. Secondly, at times the researcher used a particular interpretation to check whether the interviewee agrees with the researcher’s understanding and practical application of the interviewee’s statement.

Regarding dependability of the results of this research, the outcome space was reported in such detail that the conceptions are recognizable to the readers. Similarly, the excerpts from the interviews are considered to provide a sufficient indication that the conceptions are based on the data acquired during the interviews (Marton 1994). Phenomenographic interviews and interpretive data analysis in particular are explorative by nature. This explorative nature of the process means that replicability is not an appropriate criterion for reliability, because in discovery, the way something is presented is not the primary issue and another researcher does not need to form precisely the same categories of description (Cope 2004). As the categories of description are a unique work by the researcher it is possible in the spirit of constructivist conceptions of reality that another researcher would arrive at different categories. The presented outcome space results from a unique relationship between the data and the individual researcher with a particular background, a relationship that is bound to be different when the researcher changes.

In phenomenography, categories of description created by the researcher are not externally related to reality, but intentionally related to the statements expressed by the interviewees. Because the researcher is a human being and thus intentionally related to the interviewees and their statements, the categories of descriptions are always an intentional interpretation about the interviewees’ conceptions about reality. Thus an attempt to extract subjectivity out of phenomenographic research is impossible and an interjudge reliability system cannot establish reliability in phenomenographic research (Sandberg 1996, 132-136.)

The practical steps taken in this research included a conscious attempt to hold back the researcher's personal views in data collection. Both what and how types of questions were used in both pre-prepared and follow-up questions. The pre-prepared questions were planned in such a way that the interviewees would have a maximum possibility to express their conceptions of leadership as comprehensively as possible. An effort was made to keep the initial questions as well as the clarifying follow-up questions free of the researcher's personal opinions.

Similarly in the initial analysis phase, a conscious attitudinal effort was made to put aside the researcher's personal opinions. All the transcribed interviews were read with an open mind, in order to place similar value to each expressed opinion without imposing the researcher's personal views on the data. Throughout the analysis, when categories of description were formed, these were checked against the transcriptions in order to ensure that they are based on the data. Naturally there is no absolute guarantee that any research reaches complete reliability, the best that can be done is put all the checks and balances in place and report carefully what has been done.

As usually noted, qualitative research in general does not attempt to produce generalizable or transferable results because of its interest in explaining or revealing a particular phenomenon and because of its relatively small sampling. Phenomenography presents no exception to this rule. In the positivist scientific tradition, generalizability and applicability of valid and reliable results across different settings is one of the commonly held quality indicators. An objectivistic view to reality and knowledge leads logically to this requirement as true knowledge is not considered to be individually or contextually bound.

As this research belongs to the interpretive research tradition, the issue of generalization must be carefully reconsidered. In interpretative research, reality and knowledge are understood to be subjective, contextual, and local. This epistemological understanding runs counter to the basic idea of generalizability and naturally makes generalizability more of a peripheral issue with a limited role in determining the quality of a research. Secondly, and also stemming from this epistemological stand, the knowledge interest of qualitative research makes

generalizability a secondary issue. In qualitative research, the purpose is to understand the case under research in detail and as fully as possible, a feature that should not be replaced by attempts at generalizability (Stake 2000, 439). As Alasuutari (1999) emphasizes, in qualitative research all reliable aspects and incidents pertinent to the phenomenon under research must be accounted for in the final interpretation. Thus, there are no acceptable exceptions to the common form of the phenomenon that may be left out as in quantitative studies. Thus, the idea of generalization is inherently closer to the quantitative research that is interested in finding typical and common features and considerably more foreign to this kind of qualitative research whose knowledge interest is specific and contextual.

Lastly, generalizability is specifically an issue of sampling. When a researcher in quantitative research is familiar with the characteristics of a specific population, he or she is able to select a sampling whose representativeness is considered adequate to make broad and confident general inferences (Silverman 2005, 126). However, following a typical qualitative tradition, this research works with a small number of informants. This small number of informants, which cannot be considered an adequate sampling of any population, makes generalization, in the sense it is used in quantitative research, impossible in the current research. (Stake 2000, 439.)

Ahonen (1994, 152) rejects the idea of generalizability of phenomenographic research results altogether. Instead, she emphasizes theoretical generality of the results. Phenomenographic research does not limit itself to the description of a phenomenon, but researches general theoretical problems, and therefore the results produced through phenomenographic research may be helpful in analogical reasoning as other researchers and practitioners compare these results to their own results or experience.

It seems that the idea of generalizability should and need not to be rejected altogether when the generalizability is considered within the requirements of generalizability common to qualitative research. Result wise, Marton, Watkins and Tang (1997) seem to take a cautious positive stand about the possibility of limited cross-cultural applicability of phenomenographic inquiry. The foundational basis for this lies in the emphasis on the collective experience. Using Hofstede's (2003) definition, culture is a

collective programming of mind. However, individuals are not cultural duplicates, but have a distinctive personal set of mental programs. Thus the collective categories of description represent an embryonic cross-cultural amalgam. Description of different ways of experiencing the world is tantamount to characterizing the collective mind, i.e., the different ways people are capable of experiencing the world around them (Marton 1997, 100-101).

Further, results of a number of studies of experience of learning conducted in different cultures seem to indicate that the variation within and between cultures can be characterized by the same overall structure. Peoples' descriptions of variation seem to overlap or complement each other. Results display the existence of common elements, but the particular elements emphasized differ from one culture to another. In the same way, similar fundamental differences in the approaches to learning can be found, but the particular meaning of these differences varies across cultures (Marton & Pang 2008, 552-556). Naturally, a single phenomenographic study alone cannot claim cross-cultural applicability, but several studies in different cultures are required before the cross-culturally relevant supracultural outcome space can be formed.

Consequently, the results of this research or any individual research may be considered to have directive, suggestive, and partial generalizability. First, according to Stake (2000), generalizations are unavoidable to qualitative case studies in the sense that they provide direction for later studies. The researcher is bound to use the findings of a specific research conducted in another setting in, for example, making predictions or as preliminary indicators, although these findings are not presented as hard scientific knowledge pertinent across the population. Similarly, when a researcher reports his or her findings in an understandable form, the readers draw conclusions, modify their opinions, and draw implications for other cases on the basis of these qualitative reports. Presumably, the researcher of this study has behaved in this way and the results and reporting of this research may also be considered generalizable in this way.

Secondly, a single research may be thought to form one small step towards more comprehensive generalization. Metsämuuronen (2006, 92) considers every single

qualitative research as a case study whose results form a proposal. A more comprehensive generalizability is acquired when enough separate qualitative researches have been conducted in various settings and features general to all have been traced. Kvale's (1994) view of validation extends similarly beyond the limits of a single research. Validation is a continuous dialogical process within the scientific community in which trustworthiness of individual studies is measured through conflicting interpretations.

Third, according to Stake (2000, 446-447), carefully considered selection of the interviewees for a research according to the principles of purposive sampling enhances generalizability of the results. The results provide information on a small scale on a specific topic within a specific context and thus potentially give information applicable in other settings as well. The selection of interviewees for this research was primarily guided by the phenomenon under study, i.e., intentional conceptual change. The selection was further directed and narrowed by the specific additional interests, which included the educational setting, multicultural contexts, and leadership. Putting these all together narrowed the possible population to some kind of multicultural educational setting where leadership was being taught. The researcher's familiarity with East-African culture made that larger context a natural selection. The topic of leadership excluded primary and secondary schools, thereby making college students a natural group to be interviewed. Furthermore, the first year students were considered a better group, as they had no prior studies from leadership. Interviewing them would possibly help in distinguishing real conceptual change from concepts acquired informally in everyday life and thus result in a more scientific understanding of leadership.

There are some 40 different tribes in Kenya and thus many college classes would provide a variety of cultural backgrounds for our research. In this sense, any class could have been considered as a suitable group to be interviewed for this research. The college class chosen had students from five different ethnic tribes making it suitable for the purposes of this research. Another reason influencing the choice was the researcher's familiarity with the faculty and the staff of EAST. As stated above, good rapport with the interviewees is essential in cross-cultural studies. Familiarity

with the faculty was considered a remarkable advantage in this sense, as it provided a good platform to request the students to participate and provided faculty members' acceptance for the project, an important aspect in a culture in which elderly people are highly respected and therefore their acceptance is fundamental to any activity in the community.

This purposive sampling selection is assumed to provide generalizability for the results in the sense described above. In other words, the results provide at least some information towards understanding conceptual change among college students in an African context. However, it should be kept in mind that in this research as in all qualitative research, exploration and understanding the phenomenon within the rather limited sampling enjoys the first priority and generalizability does and should not replace this goal (Stake 2000, 439).

Further, it seems that a certain "natural tendency" towards generalization of the results is embedded in the basic phenomenographic tenet. From the beginning the phenomenographic researchers made an interesting observation that peoples' "understandings of whatever phenomenon or situation we take, will, in a sufficiently large population or sample of people, vary in a limited number of qualitatively different ways which are crucial for the quality of subsequent learning and also its outcomes" (Hasselgren & Beach 1997, 1). Naturally, this basic tenet should be understood in the light of phenomenography's belief in relativist epistemology. Naturally finding generalizability in a "sufficiently large population or sample" is rather self-evident but this claim seems to imply that the results of individual phenomenographic researches have a kernel of generalizable knowledge that can be verified by further research. It may also be justified to note that as reality is partially culturally constituted, so are experience and interpretation. Thus there seems to be a kernel of commonality in individual experience within a culture (Saukko 2003), which may be considered as the foundation on which qualitative research builds at least partially its idea of generalizability.

In summary, both validity and reliability of the research lie fundamentally in the clear, precise, and thorough presentation of the entire research process. Thus the two should

not be considered as separate steps or tasks but rather as two complementary parts, which take place throughout the work. The text is considered to provide the reader a careful description of the research process that enables the reader to follow the entire procedure. The final trustworthiness of this research lies with the judgment of the reader and the results of other researches that shed light on the same topic.

5 RESULTS

The interview excerpts are presented in the text in verbatim, with the following exceptions. Occasionally some parts of the text are left out. A discussion in a free dialogue type interview at times diverts to themes irrelevant to the topic at hand, or includes needless repetitions and practical examples that do not contribute anything new to the specific topic a particular excerpt represents. These omissions are indicated by three dots (...) between the words. At times the students paused to think or to find the right expression. These pauses are indicated by a combination of three “a” letters between three dots (...aaa...). Usually, no grammatical corrections are made to the text, even though this results in un-orthodox grammar in some of the excerpts.

Providing proper grammatical constructions for all excerpts would have occasionally required quite an extensive reconstruction of the text, which would have possibly made the interviewee’s original voice unclear, and therefore it was deemed potentially more harmful than a lack of proper grammatical expression. At times an interviewee uses a wrong word either by mistake or due to the influence of his or her ethnic language. As an example for the latter, some ethnic languages in Kenya do not have a letter “l”, and people confuse “l” and “r” with each other. As a result, “leading” becomes “reading” and vice versa. Likewise, when a student says “patient” but should say “patience”, the correction is provided in order to assist the reader. In these cases, the intended word is provided in parentheses immediately after the misspelled word. The determination of the right expression was easy due to the simple nature of the cases and the researcher’s familiarity with the phenomenon and due to the fact that he conducted the interviews personally. When deemed necessary for understanding the flow and meaning of the text, the interview questions are included in the text. These are indicated by a capital “Q” and correspondingly the interviewees’ answers are indicated by a capital “A”.

Ahonen (1994, 154) associates the presentation of interview excerpts to the validity of a research; they are presented in order to show the genuineness of the categories of description. However, using excerpts for validity is not necessarily so straightforward. In the process of qualitative analysis, the researcher is the research instrument that gives meaning to the data. Also, during the analysis, the original individual comments disappear as they are pooled together with other comments as the general categories of description are being created (Tuomi & Sarajärvi 2009, 22). Again, language includes paralanguage, i.e., tone, emphasis, rhythm, and gestural components such as nodding and laughing that are important parts of expression and communication and as a result the intended meaning is not based on the words alone. Still, the meaning of paralanguage and kinesics differ between cultures (O'Hagan 2001, 154-155). In this kind of a situation, in which categories of description are formed out of numerous relevant but different comments and the interpretation of comments includes other communicational aspects in addition to words, it seems that a single excerpt alone cannot be presented and considered as proof for validity for the entire category of description. Consequently, in this research, all quotations from transcribed interview data are presented as examples of the particular category they belong to, but not necessarily an exhaustive representative of all the aspects associated with the particular category in the interpretation.

The interviewees' expressions of their experiences of leadership and the consequent categorization are rather similar with the characteristics of many current leadership theories. Many theories such as great man, skills, and relationship theories of leadership do not strictly speaking provide an exhaustive or scientific explanation of leadership per se, but concentrate at identifying and explaining the element considered to be the most crucial of the phenomenon. In a similar fashion, the independent categories formed identify a critical element or function, without implication that there is nothing else involved in leadership. Only the outcome space as a whole is considered to provide a complete description of the phenomenon as experienced by the students.

The following paragraphs present the changes in the students' conceptualisation of leadership during the course. Sections 5.1. and 5.2. present the analysis of the

students' understanding of leadership before and after the course. Together these three sections provide the answer to the first research question:

How do the participants' conceptions of leadership change during the leadership course?

The following section 5.3. presents the culture related changes. Thus it answers the second research question:

How do the students' cultural beliefs appear in, and relate to, the process of intentional conceptual change?

Section 5.4. presents the classification of the types of changes. This classification includes the previous' sections' results. Lastly, section 5.5. presents the results regarding the intentional elements and thus provides answers to the third research question:

How do the students' goals influence the in-course self-regulation and the resulting conceptual change?

5.1 Students' Experience of Leadership Prior to the Course

This research is specifically interested in conceptual change in leadership. For this reason, in the presentation of the results, conceptual change and leadership are linked with leadership theory without limiting the discussion only to the perspective and types of conceptual change. The numerous researches conducted indicate that the resulting knowledge and theories regarding the process of conceptual change are not domain specific, and as such are also applicable to leadership studies. For example, Pnevmatikos (2002) studied the particular question of whether instruction-based changes of knowledge in students' intuitive beliefs about God could be explained by using Vosniadou and Brewer's (1992) model of conceptual change. Also, Tynjälä (1999) presents a summary of the conceptual change studies conducted on education. The acknowledged changes in knowledge are reported within the frameworks produced by studies on other domains. These studies show that the existing models

may have explanatory power outside the domain of knowledge they were initially developed in.

In the analysis and consequent formation of the categories of description, information from both interviews, the first before and the second after the course, was utilized in two ways. First, the difference between the two provides the basic changes. Second, it became evident during the second interview that generally speaking the students were more capable of reflecting on and describing even their former understanding of leadership after the course. The interviews and the course as a whole naturally sensitized the students to the subject and seemingly increased their level of reflection and analysis. Also the increased level of analysis seems to be in general agreement with the phenomenographic emphasis on the experience of variation (Marton & Booth 1997, 100-102). As people are able to experience something only after they experience variation in that aspect, it seems natural to expect an increased ability to analyse the previous experience as the level of variation is increased. Thus the leadership related information during the course provided the students with important variation and the possibility for diachronic simultaneity that led to enhanced and more precise descriptions of their previous experiences.

In the analysis, five qualitatively distinctive main categories of description were identified, with two consisting of sub-categories, and the other three with only one category without any sub-categories. The main categories of leadership were the following:

Leadership as

1. Divinely Instituted System
2. Personal Features
3. Position
4. Authoritative Action
5. Supervision

These main categories together with the subcategories form the outcome space summarizing the students' conceptions of leadership before the course (figure 12).

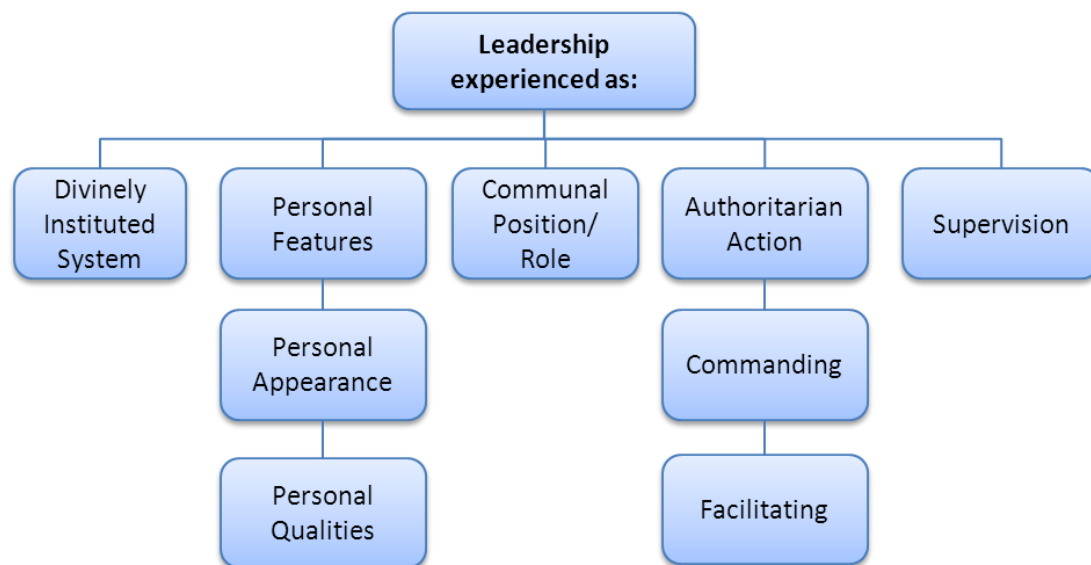


Figure 12. *The outcome space of the students understanding of leadership before the course*

According to phenomenographic analysis, an experience or conception is considered to have both referential and structural aspects. Referential aspects refer to the particular meaning of a phenomenon in a given category, and these arise as people experience a particular phenomenon, in this case leadership, in different ways. The structural aspect refers to the relationship of categories of description to each other, indicating that despite of the differences in their experiences, people are still experiencing the same phenomenon, which makes it natural to expect some kind of common links between the categories (Bowden, Green, Barnacle, Cherry & Usher 2005).

In this case the main categories are considered to form a simple inclusive hierarchy of increased complexity (figure 13). Leadership as a divine system forms the most primitive category. It indicates the origin of leadership, viewed as being established ultimately by the Divine Being. In figures 12 and 13, this category is separated from the other categories with a dotted line because of the category's exceptional metaphysical nature and because of its wider perspective in its description than the other categories. The second category is Personal Features. This serves as the next

category because leadership in the other, more complex categories and forms is considered to include a person or a group of persons. The next category is Communal Position/ Role. It is more complex than the previous categories, as it adds to personal features the idea of communal or organizational position or role. The next category is Authoritative Action. It includes the characteristics of the previous categories, but adds to them a more active presence and use of power materialized in control, command, and decision-making. The highest category in the hierarchy is Supervision. It is distinctive in its understanding of the relationship between the leader and the followers.

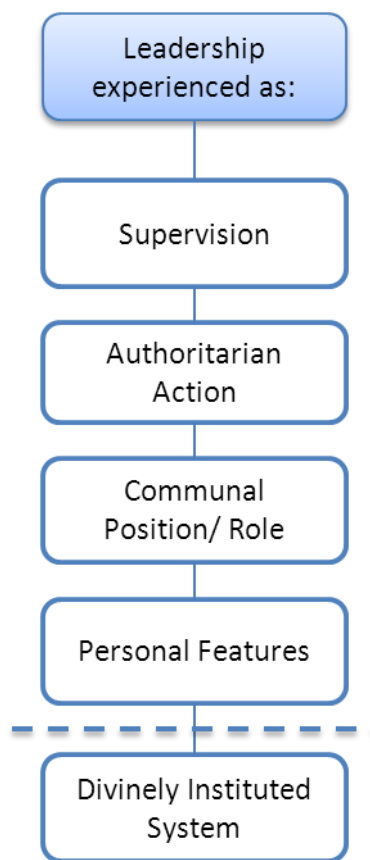


Figure 13. *The structural hierarchical relationship of the main categories of description before the course*

Similar to the hierarchy of the main categories, the sub-categories within the main categories of Person and Control are hierarchically linked to each other in such a way that the lower sub-category is included in the higher one. The higher sub-category is

considered to bring in something distinctive that is not included in the lower one. The subcategories indicate a gradual growth and intensiveness in the active use of power.

5.1.1 Leadership as a Divinely Instituted System

“... leadership is important is because it was initiated by God. Because it is God who gave man the dominion from the beginning that a man should lead what God created.” (Interviewee # 14a)

“There is something about having someone to follow. I think that God just wants it that way. You know... because honestly, without leadership most of us would be wandering around like strangers.” (Interviewee # 15)

In this fundamental category leadership is conceptualised as a divinely ordained system, giving leadership a metaphysical nature and a religious flavour. Reflecting the traditional African and common Christian understanding of the origin of the universe, leadership's origin and existential legitimacy is thought to be located in a divine being. Leadership is viewed as belonging to the larger total reality that includes the metaphysical dimensions of human existence and experience, in addition to visible reality. Due to their shared point of origin, leadership is consequently also inherently part of human nature. Human beings are experienced to have an innate need for order, followership, and direction that leadership provides. This experience is the most fundamental category, as it considers experiential human leadership as a reflection of metaphysical reality and points to the fundamental origin of leadership. As this category has its focus on the origin of leadership, it does not actually provide description of what leadership is.

This category relates leadership to the issue of worldview. According to Koltko-Rivera (2006-2007, 1-10), religion is in an influential relationship with human behaviour and cognition. Koltko-Rivera (ibid.) considers both religion and worldview as multidimensional constructs and in close causal relationship with each other in such a way that all dimensions of a person's religion shape all aspects of one's worldview. Thus religion, worldview, and cognition form a logical chain of influence

in which religion shapes the worldview and also a person's sense of reality and behaviour, and consequently the person's cognition and behaviour. Despite Koltko-Rivera's (2006-2007) constructivist language, the conception of worldview is applicable to phenomenographic thinking. In phenomenography, awareness is the totality of a person's relatedness to the world including the totality of one's experiences, thus also comprising what Koltko-Rivera calls a worldview (Marton & Booth, 1997). In addition, phenomenography understands the thematic fields that constitute awareness as multi-layered and multidimensional by nature, incorporating an idea that various issues of different levels of experience are potentially involved in an experience of a specific phenomenon.

In Western scientific thought, in this kind of description, leadership becomes partially a religious conception. However, this is a definition that an African with a traditional or holistic worldview would not make due to its implicit isolation of religion as an independent dimension of human life. This category reflects Mbiti's (1991, 30) description of African people, religion, and culture in which religion in one form or another is an essential element of life.

According to Mbiti (2002, 1), religion is an integral part of African experience of human existence, permeating all dimensions of human life to the extent that its isolation is impossible. As human life and experience is holistic by nature and religion is not separated and restricted to a different segment, it is rather natural that leadership is also, to a certain extent, considered to have metaphysical dimensions. This general African cultural view was naturally enforced in this research by the fact that the students interviewed were studying theology in a Christian college. Philosophical consideration of the origin of leadership falls outside the interest of this research.

5.1.2 Leadership as Personal Features

In this second main category, leadership was experienced as a personal quality. Leadership was experienced primarily as a static and passive phenomenon, characterized by being instead of doing. It was viewed rather strongly as something

natural or given, although the idea of acquiring personal quality is not completely excluded. The category is further divided into two sub-categories of personal appearance and personal qualities. In general, leadership as personal qualities reflects Grint's (2005, 19-22) description of person-based leadership.

This category also represents an overwhelmingly common orientation among the students, whose expressions all seemed to share the ontological supposition that a person, a leader, is an indispensable part of leadership.

5.1.2.1 Leadership as Personal Qualities

This sub-category represents empirically observable leadership in its simplest form as experienced by the students at the time of the interview and as such serves as the foundation for the other categories.

“And people to follow you that means that there is something that you have and they do not. There is something that you know and they do not.” (Interviewee # 15)

“Yes I thought being a leader you have to always do things right because people are watching at you and it is like as a leader you are not supposed to mess. So you have to do it right.” (Interviewee # 17)

In this category leadership is understood as a person with physical and mental qualities, skills, and features such as genius, knowledge, honesty, and integrity. These superior qualities make leadership an ideal person; a concrete representative of the human qualities and skills that the community deems honorable and desirable. On a conceptual level, leadership is a conceptual projection of an idealized individual. In a symbolic sense, leadership creates a qualitative hierarchy among the people, because leadership is separated from ordinary people, as it requires talents, skills, and even virtues to the extent that most of the people do not have. Although the focus of awareness is in the person, a natural assumption is that the exceptional qualities are also active. One typical characteristic of and specific requirement for leadership mentioned by the students was the leader's ability to do everything right at all times.

Leadership thus requires superior qualities in a sense that it includes the requirement for inerrancy.

This type of leadership resembles the traditional trait theory and also to a certain extent the skills theory of leadership. In the trait theory, leaders are considered to be different types of persons than non-leaders (Kirkpatrick & Locke 1991, 48-60). The difference is based on the existence of certain key qualities and characteristics in the leader; qualities that are either inherited or acquired and that are particularly suitable for leadership. Northouse (2004) provides a list of five qualities: intelligence, self-confidence, determination, integrity, and sociability, a seeming attempt of harmonization of several lists consisting of over twenty qualities (Northouse 2004, 18-19). Despite of the fundamental universal nature of the leadership qualities, researchers within the theory have also claimed that the particular qualities must be relevant to the specific situation a leader is functioning in (Northouse 2004).

In the skills theory, the focus diverts from the leader's personality to specific skills and abilities. The leader's knowledge and skills form his or her capability to perform leadership. Leadership is open to all, because the necessary skills can be acquired through learning and therefore leadership is not limited to the individuals with inborn specific characteristics. (Northouse 2004, 35-64.) In the skills model developed by Mumford, Zaccaro, Harding, Jacobs and Fleishman (2000), the key individual cognitive, motivational, and personality attributes provide the basis on which the leader may develop the key competencies: problem-solving, as well as social and application skills that together produce the desired leadership outcomes. The attributes and competencies are further enhanced by the leader's career experiences. Environmental factors that lie beyond the leader's control influence the leader's performance. (Mumford et al 2000, 11-35.)

5.1.2.2 Leadership as Appearance

Leadership as appearance maintains the issues of the previous sub-category in the focus of awareness, but considers leadership as more complicated by adding the

public sphere and external qualities that also make the personal qualities of the previous sub-category more readily visible.

“He has to be a person who is ready to be a role model.” (Interviewee # 12a)

“You know there is a way a leader need to relate with people that have learned like we say here in Kenya a voice command is very important so in you talk to somebody if you are a leader you do not want to like I am protecting this that I do not lose respect you.” (Interviewee # 13a)

“... I needed a leader to look up to, someone I could identify with. Look at me and say you know what, you understand what I am going through.” (Interviewee # 15a)

“The way he presents himself, you know the way he was presenting himself you can say this is a leader.” (Interviewee # 13 a)

The theme of awareness expands to include such things as general appearance, physical stature, communication skills, good behavior, and good public presentation skills. This type of leadership is essentially public and communal. The elements of leadership are all related to public appearance and function on a symbolic level, providing the followers a sense of communal unity as well as inspiration and motivation. The elements serve as symbolic indicators of leadership’s wisdom, knowledge, skills, success, and the like. Extraordinary presentation becomes a materialization of these leadership attributes and provides the followers a concrete role model with whom to identify with. This type of leadership seems to satisfy a person’s needs for having someone as the significant other.

Leadership as appearance provides a chance for modelling. Collins (1996, 51) argues that people are actively seeking upward comparisons. According to Lockwood, Jordan and Kunda (2002, 854-864), individuals who are positive and exceptionally successful, may serve as an inspiration to others. This kind of positive role model illustrates to another person an ideal, desired self, and thereby draw attentions to the possible accomplishments that a person may attempt to achieve, and exhibit a way for achieving these goals. In a similar vein, Bandura (1969) states that identification, as a process of patterning one’s thoughts, feelings, and actions after a role model is not

limited only to childhood. Instead, identification continues throughout a person's life as multiple modeling that produces long-lasting changes in personality characteristics (Bandura 1969, 213-262). As Brewer and Weber (1994) show, engagement of social identity causes assimilation with an in-group member and the high performance of the other person results in enhanced self-evaluation. Thus leadership as appearance may be interpreted as a tool for personal inspiration, motivation, and enhanced self-esteem.

This type of symbolic leadership seems to be deeply rooted in African culture, as it embraces leadership and organization related symbolism. Values and beliefs are transmitted through symbolically loaded rituals and ceremonies. In some cultures so called praise singers join the actual and symbolic dimensions of life, as they are understood to be accountable to the ancestors but through their function serve as communal and organizational critics of incumbent leadership. (Mpigi 2005, 54-60.) Human leadership was considered as a shadow of the otherworldly order and a leader as a divine representative, providing a link between people and metaphysical beings. Rulers were usually surrounded by various kinds of rituals and symbols that upheld the idea of leadership being an extraordinary office. Leaders had a strong symbolic value, as they symbolized people's health, welfare, unity, and common tradition. (Mbiti 1991.)

5.1.3 Leadership as a Communal Position or Role

Leadership as a position or role forms the next main category of description. It represents a slightly more complex conception of leadership than the previous main categories, as some kind of formal societal or communal position occupies the focus of awareness in addition to an individual. In this category, leadership is viewed quite mechanically as a societal position or a role, the position carrying a rather analogous role to a wheel in a machine. Society as a whole is viewed as a complex structure in which every person and function has their designated positions or roles to fulfil, leaders and leadership included. This category reflects Grint's (2005, 28-29) position-based leadership, characterized by vertical, formal hierarchy.

“Before I just thought that maybe as ...the moment you are in a position you are just a leader, leading those people. So regardless of what you are doing, you are just a leader.” (Interviewee # 7)

In this category, leadership becomes explicitly a structural and hierarchical experience, as the element of a fixed societal system is included in leadership in addition to persons and personal functioning. Personal characteristics or abilities are no longer enough for leadership to exist. Leadership as a position is experienced primarily as passive, hierarchical, and preservative rather than progressively oriented.

Leadership as position is experienced on different levels in practice, although qualitatively the nature of leadership remains the same.

“Bit debatable. Some are born (as) leaders. Even if you are not the firstborn in the family, people listen to what you say. That is a born leader; you can lead a family.” (Interviewee # 2)

This category includes such cultural forms of leadership as being the firstborn in a nuclear family or being the eldest in a larger family; a leadership position that is based solely on being the firstborn male or the eldest living male member of a clan. Because leadership is allotted on the basis of cultural customs, the leader’s cognitive abilities, and communicative or organizational skills do not occupy the primary role, at least not initially. A person is a leader as long as he or she occupies the position, regardless of the capability of the other people.

Three mutually interrelated aspects characterize leadership in this category: social and hierarchical differentiation, an esteemed action determining status, and absolute authority. These aspects are empirically evident on varying degrees depending on the leader’s positional level in the societal hierarchy. The position of a class elder possesses minimal social differentiation whereas in national political the social separation of the leader’s position is high. These types of differences in degree were not considered to account for conceptual differences in order to form separate sub-categories within this category.

“I think leadership was just to sit on the high table...they like to be served.” (Interviewee # 3)

“Because what happens is in our culture the person who is there (in a position of leadership) he is the boss. Whatever he has said, or whatever wazees (elderly respected men) have whether it is right or wrong, you know, they are the boss (es). And if they have said, they have said. No one can undo what they have said.” (Interviewee # 17)

“He is good because he is in leadership right now. I cannot say against leader.” (Interviewee # 18)

Leadership is considered to be a societal position and this distinctive characteristic is accompanied with an undisputable authority that is attached to a position, not to the person occupying the position. On the higher levels, the power invested into the position is so dominant that leadership cannot be questioned or challenged by the followers or subordinates. In other words, the leader’s decisions and actions are made right by the position, not by their quality or the following success.

Another distinctive feature of leadership in this category is the strong separation of leadership from other people.

“My new understanding of leadership is better. The old time I used to think the way I have said about; leader is a boss and then the other thing I used to think about being a leader is to exclude yourself from the people.” (Interviewee #13)

This separation does not include only professional life, but extends also to one’s social life, manner of speaking, frequency and nature of contacts, and also some physical elements such as dressing. This separation creates a hierarchical societal structure, and leadership becomes a function that sustains society by maintaining the formal hierarchy.

“Without leadership everything at least would be a mess, all the people are equal so without somebody leading them... God and bible ... God initiated that there should be authority if there is not authority there is a big mess. All people reaching at least some status.” (Interviewee # 2)

Social hierarchy is experienced as being a natural necessity. Equality in terms of an authoritarian position is viewed as a negative societal phenomenon. Hierarchy

provides necessary authority and provides identifiable status to all people making communal life possible. On the other hand, equality is acquired in the way that all people possess a specific status in the society; in other words, they are recognized as part of the whole.

“Especially ...aaa... relationships I believe before as a leader there has to be...aaa... a way of building walls, e.g. being a leader you have to position yourself in a manner that sensitizes the followers that you are a leader. In building walls such that you can come this far but not until this not as far as you want.” (Interviewee #1)

The purpose of this separation is part of the two-way identity building process. It does not only separate a leader from the people, but serves as a way to clarify the identities of a leader and the followers and establishes the leader as the locus of control.

“You find that you could also give us examples of people who are leaders and they deny themselves and they like they go so low ...he is not like living according to his status so.” (Interviewee # 4)

“That when you are a leader you just you are a boss. You get some privileges you know ... when you are the leader if people are paying for anything you do not pay. ... since you are a leader, automatically you are exempted.” (Interviewee # 13)

Leadership is also considered as a sacred position that is protected by this separation. The position entails different kinds of privileges and benefits. On the other hand, certain tasks are considered derogatory and inferior, and as such unsuitable for a person in a leadership position to perform, as participation is viewed as the denial of the position the leader occupies.

Experiencing leadership as a position differs to a certain extent from current leadership theory. Regardless of the close affinity of position and leadership, position is commonly considered to be in a supportive role in a conceptual definition of leadership. Position refers to the leader’s specific organizational office or rank, which is conceptualized as a possible source of leadership authority because of the assumed correlative relationship between organizational position and executive power. (Northouse 2004, 6-7.) Position is needed in leadership, but it might be assigned or

emergent. Assigned leadership is defined as “appointment of people to formal positions of authority within an organization” (Rowe & Guerrero 2011, 3). Emergent leadership, on the other hand, is evident when people identify a person as the most influential in the group regardless of the person’s official organizational status (Northouse 2004, 5). Thus position is instrumental to leadership, either as its starting point or as a result of it.

Experiencing leadership as position makes it a static part in an organizational or communal system. This seems to reflect the concept of an African extended family. According to Mbigi (2005, 83), in the extended family system the person’s position, age, and blood ties determine his or her societal status, role, and authority.

The idea of separation seems to reflect the traditional African view of leaders, who were separated from common people. Traditional leaders were not necessarily extraordinary men or women by their talents or abilities, but as kings were considered to be divine viceroys on earth, their office separated them from people and they were separated from ordinary life and other people by a variety of means (Mbiti 2002, 182-187). Jackson (2004) cautions against reading excessive social distance to the role and function of traditional leaders, who regardless of their position had to earn the followers’ respect and rule by consensus. In contrast, Jackson lists “reliance on hierarchy, use of rank, low egalitarianism and a lack of openness in communication and information giving” (Jackson 2004, 25) as indicative of post-colonial management style in Africa. He views the post-colonial system as a merger of traditional and colonial systems.

5.1.4 Leadership as Authoritative Action

This main category presents an additionally complex conception of leadership compared to the previous main categories. It builds on the understanding of the previous categories, maintaining their views of leader and position. This experience views leadership as characteristically active, emphasizing doing rather than being. This category brings authority and authoritative impact into the experience of

leadership. It maintains the traditional view of leadership by holding its main focus in the leader. When compared to the previous main category, this category reflects later development in leadership theorization. When the early theories concentrated on the leader's person, the next generation of theories concentrated on leader's actions.

Leadership is considered essentially as an active use of authority. This authority stems from the elements of the previous categories, i.e., position and personal charisma or abilities. In contrast to the position-category, this category conceptualizes leadership as active involvement and participation in a community or an organization, which leads to progressiveness and greater contribution in terms of what and how something should be accomplished. Whereas in the previous categories activity is more of an accompanying attribute, here it becomes a defining attribute with the addition of goal-orientation. It is relatively similar in terms of hierarchy. Leadership as exercise of authority is closely linked with leadership as position. However, in the students' experiences the two were conceptually separated. This category is further divided into two sub-categories that display an increased level of authority and influence on the followers. The sub-categories are:

1. Facilitating
2. Commanding

5.1.4.1 Leadership as Facilitating

Leadership as facilitating makes the everyday operations possible and thus maintains the continuance of the system. It includes such tasks as the organization of duties, basic instruction, delegation, supervision, and reporting to one's superiors.

“Just taking people to the next stage to getting to their duties.” (Interviewee # 8)

“Initially I most of the time I would just even something is taking effect and ...aaa... I go regulating it or rather directing people how to do it. Something that has already begun... ok now what you are going to do it is, you know, it is something that is already initiated. You are just facilitating.” (Interviewee # 1)

“Just according to how I understood, I just understood that one being a leader, maybe according to how I have seen many, is that you just need to be there, maybe to get some few ideas from your fellow colleagues. Just be there to delegate work and I did not know that it will require much from someone to be successful.” (Interviewee # 4)

Leadership is experienced as active and doing, although in a rather limited sense and still without the sense of development or innovativeness, planning, and the like. Leadership is a function that maintains communal or organizational operations and liaisons between different people, groups, and functions. Success is measured by smooth operations and not by maximum productivity or progression. Despite the active definition of leadership, its nature and purpose is to support the establishment, whether communal traditions or organizational operations.

“My idea was a situational leadership, whereby you just do ok now I do not that you just handle situations this comes and then you all like what do I do concerning this it is not so much ...aaa... consulting the people it is dealing according to the situation right away but with the other style I came to realize there is much more.” (Interviewee # 5).

Leadership is reactive rather than proactive by nature. As the interest of leadership is in running the operations, there is no planning or training. The leader is considered to possess all the needed skills and knowledge, due to his or her position and personal characteristics.

Leadership as facilitating seems to resemble some elements commonly attributed to managers, especially in a set-up in which leadership and management are placed against each other. Bennis (2003, 88-89) describes managers as persons who maintain, administer, accept the status quo, and as persons whose focus is on systems and structure. Leaders, on the other hand, are innovative developers who focus on people. This view seems to also agree with Blunt and Jones' (1997) findings of leadership in Africa, which displays preoccupation with rules and procedures and a reluctance to judge performance.

5.1.4.2 Leadership as Commanding

In this category the essential element of leadership is active exercise of absolute power or authority. It includes the elements of the previous sub-category, with an increased level of authority and the active use of that authority on all levels and functions.

“Saying the truth I thought myself I thought being a leader is just a kind of being a boss. And I could go with people and instruct them to do some things with command and wanted them to do exactly what I want them to do.” (Interviewee # 13)

“I had that connotation that a leader must exploit those that he is leading, must be the boss.” (Interviewee # 4)

In this sub-category, leadership is equated with executive power or authority and its sovereign exercise, and often with a negative connotation of coercion. Leadership is a direction-providing activity that emphasizes decision-making. The leader is supposed to possess all necessary wisdom, vision, and knowledge in order for an organization to function properly and succeed. A peculiar feature of leadership in this sub-category is its conception of other people. Other people are viewed as subordinate performers whose duty is to accomplish what they are told to do by the person in power. Leadership is also considered to provide the power to take advantage of other people. Communication is uni-directional as the other people exist for the leader and do not have value except to fulfil the will of the leader.

Leadership as commanding resembles Goleman, Boyatzis and McKee's (2002) coercive leadership style. Coercive leadership is the style for times of crises, situations in which an organization is in the middle of a hostile environment where its existence is in danger. Coercive leadership may provide a solution with its extreme practices. The aim of the style is to change the organizational climate and culture in a short time. In coercive leadership, the leader has all control and power. Communication is unidirectional as the decision-making is the exclusive right of the leader. The relationship between the leader and the sub-ordinates is distant, even

hostile, as sub-ordinates exist for obedience and are required to follow the direction provided by the leader down to the smallest detail. (Goleman et al 2002, 78-83.)

5.1.5 Leadership as Supervision

Leadership in this category is qualitatively distinctive from the other categories, because of its view of and relationship with sub-ordinates and the subsequent attitude of approach. Even in the previous categories the sub-ordinates are naturally present in order for leadership to occur. However, in this category people are brought into a more central role. Leadership is viewed as a constructive human relationship. It should be noted, however, that the direction of information and communication is still primarily from the leader to the sub-ordinates, as leadership controls the communication even though the sub-ordinates are given a voice. There are no sub-categories in this type of leadership.

Leadership is conceptualised as an active task of planning, directing, and monitoring of the activities of the group or the organization. It is characterized by such acts as decision-making, visioning, information, and monitoring. Leadership is necessary because it keeps things and people in their proper place and makes sure that everything goes in the right direction when fulfilling the goal.

“Bring people together...e.g. if there is a community bring people together so that they can do at least something... there is no togetherness...to organize..at least if there is war in other countries one has to know how to lead army ... to use the means which are available ... leader is there to punish evil people...” (Interviewee # 2).

“Leadership...people need to be shown and told what to do and where to go.” (Interviewee # 10)

“Leadership...is the source of direction, if we do not have leadership then there is no direction. People will be destroyed. There will be no flow of let me say no flow also of information what somebody is supposed to do. But if we have leadership in, we have authority, you know there is that kind of you know which direction you go, the right information(s) come, and the right things are done even from down. Yeah.” (Interviewee # 13)

This form of leadership takes peoples' opinions and needs into consideration. Leadership is a function guaranteeing that what people need and want will take place. There is a certain relational tension between the leaders and the sub-ordinates in this category. On the one hand, people appoint leaders and in that sense people have power over leaders, but on the other hand leadership position provides the leaders the authority already present in the previous categories. Again, leaders are appointed by people from their midst, but when elected, leadership is assumed to possess qualities and powers not present among the people.

“So he has to be there and provide what they need.” (Interviewee # 12)

“He is to help that he lead...It is to say that looking after them. When there is a problem to be the first person and help them...There are those people who are living in those places where nothing can come from there. As a leader it is good for you to make sure that place you provide something which can be seen by those people. E.g. if they are masai you should go there. You know their problems, their polygamies, most of them do not have education but if you go up there and raise up a team to help those people to be learned then you are supporting them.” (Interviewee # 3)

A leader is a resource person, elevated into leadership position and as such assumed to be able to solve peoples' problems and provide support and safety when a particular individual's personal abilities, possibilities, or resources fail. As this assistance may be of any kind, i.e., financial, educational, political, physical, or so on, leadership is assumed to possess a solution to all kinds of needs.

This experience of leadership corresponds more closely with a common understanding of management rather than leadership theories. In his comparison of leadership to management, Kotter (1990) recognized planning, organizing, controlling, and problem solving as the key functions of management. Rost (1998) distinguishes management from leadership on the basis of different goals, purposes, and relationships between the person in charge and the others. In management, the relationships are unidirectional top-down relationships of authority, and the parties involved are designated as managers and subordinates. In leadership, which involves leaders and followers, the relationship is one of multidirectional influence without any

use of coercion. The goal of leadership is to produce a real change, while management focuses on production of goods or services. Finally, in leadership the leader and the followers interact constantly with each other in order to create common mutual purposes for producing the desired change. On the other hand, management focuses on coordinated activities to produce the products, and there is necessarily no common vision, but an agreement on how to proceed (Rost 1998, 97-114.)

The structural coherence of the categories of description is displayed by common, uniting characteristics (table 11). Coherence is always expected as the categories describe the same phenomenon despite their differences. The first category of description, i.e., leadership as a divine system, is not included in the table above. This view of leadership belongs to the interviewees' worldview and as such does not function in the categorization in the same way as the other conceptions. Instead, it operates on the background, as an explanative metanarrative for all human existence and phenomena, leadership included.

Table 11. *Categories of description of conceptions of leadership before the course*

Categories of Description				
Themes of expanding awareness	Personal Features	Communal Position or Role	Authoritarian Action	Supervision
Locus of leadership	Person	Person + Position	Person + Position + Power	Person + Position + Power + Relationship with People
Nature of leadership	Passive	Passive	Active	Active
View of other people	Supporters	Members of Hierarchy	Sub-ordinates	Active executors
Primary mode/nature of Influence	Example	Through System	Direct and absolute authority	Cooperative

In summary, the students' conceptualisation of leadership prior to the course followed the findings of traditional leadership research. The experience of leadership was primarily leader centred with authority and hierarchy as the other conspicuous primary constitutive elements. There is a strong sense of hierarchy and fixed roles of

leaders. Leaders are clearly defined authority figures. Power distance is relatively strong. In all of the views, an individual leader plays an important role even if the person recedes to the background when leadership is conceptualized as position, function, or ability.

5.2 Conceptions of Leadership after the Course

After the course, a number of changes in the students' ways of experiencing leadership were evident. In the analysis, two new main categories became evident; first, leadership as an influential process and second leadership as communal function (figure 14).

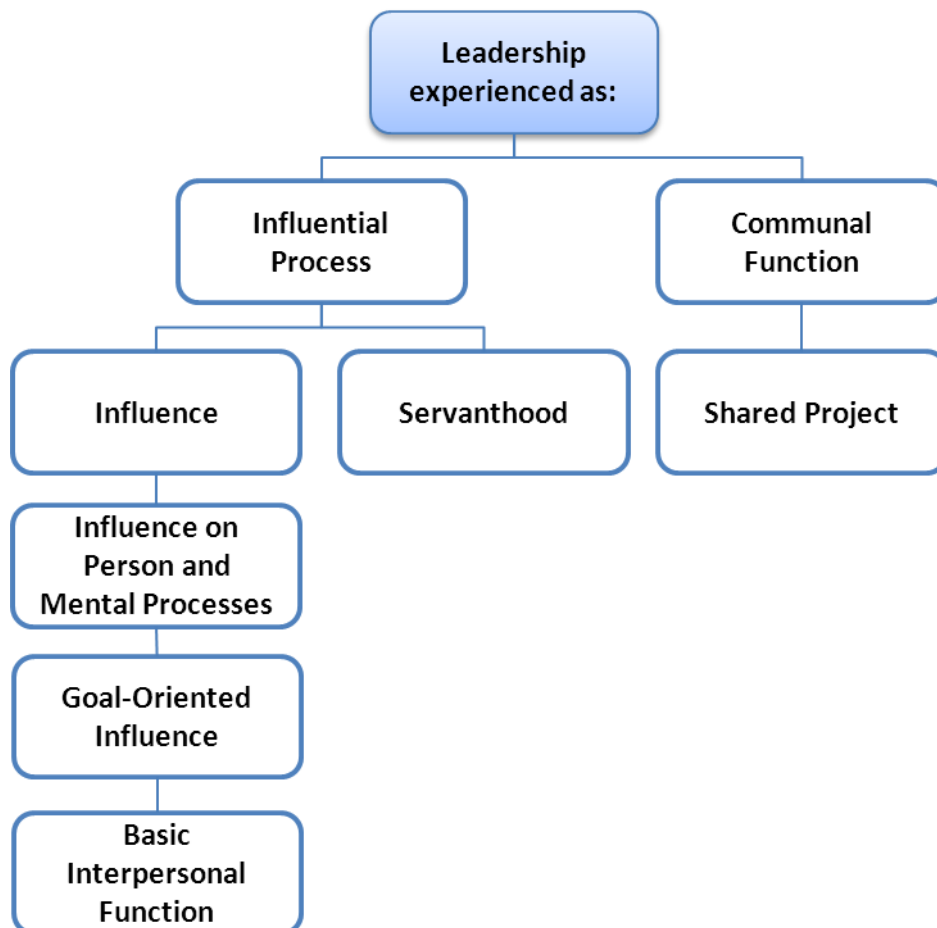


Figure 14. *Summary of the new categories*

The first of these is further divided into the sub-categories of influence and servanthood with the first divided into three further sub-categories.

1. Leadership as an Influential Process
2. Leadership as Communal Function

Characteristically the new categories reflect a more positive view of the sub-ordinates or followers, as well as a closer relationship and co-operation between a leader and followers. Also, in these categories, leadership becomes more subtle. There is also a change in the nature of influence. Before the course, the authoritative action –category involved a direct authoritative type of influence. The influential process –category after the course, on the other hand, reflects a more positive and subtle type of influence that includes persuasion.

There is no indication in the data that despite the changes, the previous ways of experiencing leadership would have disappeared totally, especially on the collective level. On the other hand, all of the earlier forms of experience went through modifications. These include, e.g., position, which was one of the main categories prior to the course and therefore an important and a necessary part of influencing other people but which after the course was no longer considered part of the essence of leadership. Authority, which before the course was equated with leadership itself, was after the course experienced as one leadership style that may be used when the situation calls for it, but leadership per se was seen more as influence than anything else.

There were also changes that are not directly related to the earlier main categories. For example, the students experienced changes in their understanding of time management, relationships between a leader and his or her followers, self-identity, and commitment. Some of these changes will be explained in detail below, as they serve as examples of different types of changes in experiencing conceptual change.

In the following, the new phenomenal level (conceptions of leadership as a phenomenon) conceptions of leadership are presented first. After this the different

types of conceptual changes are presented. These results are also linked to the existing scientific research on conceptual change. The phenomenal level descriptions of leadership are separated from the types of conceptual change because the new phenomenal level conceptions of leadership do not exhaustively represent the different types of conceptual changes. A type of conceptual change is the difference between the initial and the final experience and thus dependable on both. Thus a single new category on the phenomenal level does not reveal any type of change as it represents only the final result.

Phenomenographically, the new conceptions on the phenomenal level represent new ways of experiencing leadership and as such could be the result of the research. However, in this research the interest lies also in the types of conceptual change, i.e., in the types of changes that have taken place on the individual level. This arrangement of presentation was considered the easiest in spite of some repetition of results and the resulting awkwardness in reading. The reader is also advised to keep in mind that the bulk of the studies in conceptual change have been accomplished within the constructivist epistemological and learning paradigm, and thus their language differs from the phenomenographic understanding. This difference does not, however, exclude the possibility of finding connections and similarities between different paths of inquiry.

5.2.1 Leadership as Influence

As a result of the course, one new way of experiencing leadership was influence. The students expressed three separate, hierarchically related experiences of influence (figure 15); basic state, task-oriented influence, and influence on followers' mental processes.

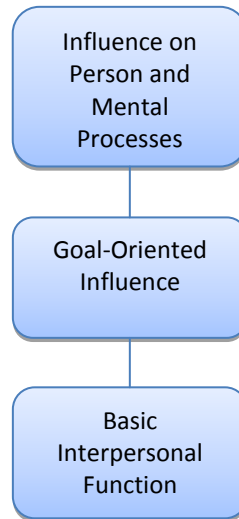


Figure 15. *The sub-categories of leadership as influence*

In this category the students open up variation in the leader in the sense that the leader’s actions are discerned and focused on. Thus leadership is understood as action instead of a static position. It also seems to open up variation in the characteristics of influence; because influence is described in more positive and subtle terms and is thus considered qualitatively different from commanding, which is also a form of influence. Another variation opened up is that the other people occupy a more prominent role and are introduced to the internal horizon of leadership. In the categories prior to the course, people were in a secondary role and outside the conception of leadership per se. In the influence category, people are included in the focal awareness category, because influence is intentional by definition.

5.2.1.1 Basic Interpersonal Function

Influence as a basic interpersonal function forms the basic sub-category for leadership as influence.

“I have come to see that in the entire roles of human day-to-day living we can still be a leader by this attribute of relationship. Developing relationship and opening up to the people and building that trust in a way you will lead them consciously or unconsciously to attain something.” (Interviewee # 1b)

“I never understand (understood) the way that the leadership is influence or ability to lead them. You... according to my thinking is that...aaa... every person, every human being has potential in him.” (Interviewee #3b)

In this sub-category, influence is a very general relational conception by nature. It is a function of relationship that is characterized by openness and trust. Leadership is viewed as ability, and since ability to influence other people is seen to be an innate potential in every human being, so is leadership. In this type of understanding, the focus of awareness is solely on influence, without any organizational or group settings that are discerned as part of the external horizon. Leadership thus becomes a concept of human interaction in all its' modes, levels and contexts. Leadership is seen to occur at any time a person influences another person. As it may take place even unintentionally, leadership is a function of social relationships operating independently of intentional actors. Consequently, leadership takes place all the time everywhere.

This way of experiencing leadership follows Maxwell (1998), who defines leadership rather emphatically as “influence, nothing more, nothing less.” Maxwell’s (ibid.) definition seems to be ontologically motivated, aiming to identify the irreducible core element of leadership. Influence is commonly accepted as the sine qua non of leadership, although it is usually considered as a part of leadership, without Maxwell’s emphatic exclusiveness (Northouse 2004, 3). Social influence in the general sense of this sub-category is an elemental dimension of all organizations and also of all human relationships. As Porter, Angle and Allen (2003, 3.) state, in organizational settings people influence others and are subject to being influenced. Influence may be intentional and overt, intentional from the perspective of both, the influencer and the one influenced, or it may be unintentional and happen without the person influenced being aware of it. It would seem that influence is also conditional and to a certain extent uncontrolled. Influence is not purely a specific act of the influencer, but depends on the receiver’s interpretation and acceptance of the act. On the other hand, one person’s acts may influence another’s in ways one is not aware of.

5.2.1.2 Leadership as Goal-Oriented Influence

“...but now as a leader leadership may not be a position. You might not become a leader because of the position but somebody may say that position is the one that makes one a leader. But a leader is somebody who is influential to the people so as they may achieve a goal at the end of the day.” (Interviewee # 14)

This sub-category builds on the previous sub-categories and represents a step in the direction of a more complex form of leadership than mere influence. The student seems to open up a variation in the target of influence, i.e., influence is not viewed neutrally as an effect on the follower, but as something with a specific goal. Leadership thus encompasses a larger range of elements. Influence is considered as a goal-oriented action, in which people remain as the primary target of influence and the immediate producers of the results. The assumption seems to be that all share the goals set. Consequently, leadership of this type seems to be associated with a somewhat clearly defined group or organization with an established vision and mission.

Goal orientation and attainment are commonly included as part of leadership in various theories. Bennis (2007) includes goals as one of the ontological elements of leadership. Likewise, Northouse (2004, 2-3) constrains leadership into contexts where people are attempting to achieve a goal. Leadership is thus inherently intentional, followers being the immediate receivers of leadership actions and influence, with the goal as the main motivational factor. Without a common goal, the leader – follower relationship would be social interaction without further cause.

5.2.1.3 Influence on Person and their Mental Processes

This is the fourth sub-category of leadership as influence. It encompasses the previous sub-categories and represents an increasing complexity by opening up a further variation in the influence on the followers. It does this by adding the element of

influence onto the followers' mental processes such as thinking, reasoning motivation, and so on.

“I may achieve something that you know when I look back I may see that these people that I am leading they have grown and they can be able to work and to teach others to lead others to achieve great things in life.” (Interviewee # 14)

“So, your people, you will now control them. Because you know, ...it is just to, to, to know the psyche of the people, knowing their mind. You, you know their mind, ... aaa... you know the mind of the group, how they, they think. After realizing what they think maybe you can enter there. And dismantle their thinking. And bring another new thinking. Yeah.” (Interviewee # 3)

It views influence as a social process that causes a permanent change in the followers themselves. Influence aims at empowering the followers, instead of the task or relationship related external changes that dominate the previous sub-categories. As a proximal aim, leadership aims to change the followers' task related cognition, skills, and motivation to increase their capability and performance. On a more distal level, leadership affects the follower's self-concept and self-efficacy beliefs, and also their worldview level constructs. In this type of leadership the hierarchical distance between leaders and followers decreases, and the follower's organizational status is changed from a transactional producer to an integrated member of the group. The follower becomes a learner and leadership becomes an educational process.

This conception of leadership reflects Ruohotie's (2006, 1) definition of leadership as a social process in which the leader's influence is extended to include the followers' cognitive and affective processes. In the taxonomy of an individual, personality and intelligence stand as top-level broad concepts that are considered to consist of affection, conation, and cognition. These three are further divided into two sub-concepts each: temperament and emotion, motivation and volition, and procedural and declarative knowledge, respectively. These are constituted of a variety of factors. Thus procedural and declarative knowledge as organizing cognitive constructs include, e.g., domain specific knowledge, skills, and strategies and tactics that are under leadership influence on the proximal level. With regard to affection, leadership

influences temperament and emotion, personality factors, characteristic mood, and values and attitudes. (Ruohotie & Koiranen 2000.)

Empowerment is “belief in one’s capability to control motivation, cognitive resources and the operations required by the task at hand” (Beairsto & Ruohotie 2003, 118). In relation to empowerment, leadership as empowering influence concerns the process of becoming empowered rather than the state of being empowered. It describes becoming empowered as a process of learning in which the individual’s sense of competence, confidence, and inclination to engage in an expanded variety of activity is enhanced. Becoming psychologically empowered requires development of metalearning capabilities and a disposition to do so continually. In psychological empowerment, Beairsto and Ruohotie (2003) emphasize specifically the role of conative constructs that include motivation and volition. Motivation refers to the pre-decisional state and includes internal and external goal orientation, self-esteem, and self-efficacy among others. Volition refers to the post-decisional state of persistence, willingness to learn, self-regulation, self-evaluation, and motivational control. (Beairsto & Ruohotie 2003, 121.)

5.2.2 Leadership as Servanthood

Another new way to experience leadership was servanthood. In this category the key words are practical equality, subtle persuasion, example, and voluntary followership.

“But through studying leadership I have come to notice it is not being a boss, but being a leader is just being a servant. First it is you who serves and then people will follow what you are doing. That is being a leader.” (Interviewee # 13)

“I used to serve people... in terms of their needs in terms of they need encouragement, instructions that kind of a thing, but now the kind of bending and doing what they are doing...” (Interviewee # 13)

In this category, the factor that occupies the focus of the theme of awareness forming the core of leadership is the close relationship between the leader and the followers.

The social distance that was so evident in the categories prior to the course has disappeared and the leader strives to be on the same level socially with the other people. The difference in duties is also diminished as the leader is in practice doing the same things as the other people. Practical leadership is largely inconspicuous as it relies on subtle persuasion, not on an authoritarian position or power. Leadership is showing a practical example in everyday activities, trying to inspire and motivate people on the personal level.

“I realized that a leader is supposed to lead not the way he wants but the way he sees the needs of the people. You interpret peoples’ needs in a way that you will always lead them in the right way. And also your word is not final as a leader. Sometimes you need also to appreciate what other people are suggesting and also I learned that a leader is always ahead you will always be seeing ahead and advising them what they are doing they are supposed to do. So you set an example by both your life by what you are saying.” (Interviewee # 6)

What separates this from leadership as a shared project is that in servanthood the leader as a separate person and the role of a leader are still clearly recognized. Decision-making is more democratic as everyone’s voice is being attended to. In order to be the example for the rest of the people, the leader needs to be a visionary, who is able to guide others towards the future. Serving is a way of life but at the same time also the way to influence people.

“One of the things that I have gotten especially the leader set up like how has a leader is a servant. He is as if maybe you leading from behind you are not really somehow trying to force people but set an example by what kind of life you live the way you handle things they want to lead you voluntarily, I mean follow you voluntarily, because you have set an example.” (Interviewee # 6)

Leadership as servanthood includes the element of followership. Consequently, the focus is not only in the action, but in the way the student’s awareness expands to include additional elements as part of the internal horizon. As influence is aimed at attracting followers, a variation is opened up in the roles of people; that is, influence is the leader’s influence on the followers. Thus the roles of leaders and followers are more explicitly determined and fixed and the influence is considered primarily unidirectional, from the leader to the follower, without the fluidness of the previous

sub-category. In this category of leadership, followership seems to require such things as acceptance of and commitment to the leader from the followers' part. Consequently, all casual or occasional short-term relationships are not considered to amount to leadership, since long-term influential relationships seem to be required. As the primary aim of influence is acquiring followers, the assumption seems to be that followership is voluntary and characterized by a strong personal bond. Similarly, social interaction is not recognized as the sphere of leadership; rather, it is linked to a specific organizational or group context.

Servant leadership emphasizes ethics and a characteristically altruistic mood on the individual and institutional levels. Leadership is described first and foremost as servant leadership, and therefore becoming a leader is only a consequence of this desire. In other words, leadership is a means to serve, not vice versa. Servant leadership aims at the growth of the followers, seeking to meet the highest priority needs of the followers, such as autonomy, freedom, and knowledge. Leading is being an influential example, as well as providing vision and initiative for others. Servant leadership creates an empowering relationship with the followers, and emphasizes listening, understanding, empathy, and the acceptance of others. It seeks to remove societal injustices and to give a voice to all people by the delegation of authority, on both the individual and institutional levels. Leadership status is granted voluntarily by the ones being led in direct proportion to how the leaders follow the principles of servanthood. (Greenleaf 2003; Northouse 2004, 308-311.)

The students' descriptions of leadership as servanthood do not seem to correspond completely with Greenleaf's (2003) traditional description of proper servant leadership. Greenleaf (*ibid.*) describes two extreme types as servant-first and leader-first. For the latter, leadership is the primary issue and serving may come later as the means to lead due to the expectations of others. Leader-first leadership includes selfish motives, i.e., looking for personal fulfilment or benefit. Some of the students' descriptions of servant leadership seem to carry certain characteristics of this leader-first type of leadership. Their descriptions reflect an attitude that serving is considered as a means rather than as an innate desire to look for the best of others.

5.2.3 Leadership as a Shared Project

The third new way of experiencing leadership is to see it as a shared project, a type of group phenomenon in which interaction between members of a group is emphasized.

I will say, before it was just I, me and myself, whatever I am planning I am going to do by myself, it is the “me” project. But now my ideologies have changed now it has come the “we” project. I’ll have to involve others so that this project this vision may be able to grow... the leader is the one who involves the team. And he wants to see the team together with him, he is part of the team, being able to achieve as a team, not as an individual ...I’ll have to work with other people on a closer range. Not just keeping to myself, I’ll have to go others to tap into their potential as they tap into my potential. So I have to tap so much into my potential to bring the best of me to people, to what is in me, to serve their interests and I will expect to also likewise from them, to tap into the best of their potential to bring out the best that is in them.
(Interviewee # 8)

In this category, functions of an individual-oriented leadership are shared among the group members. Much of the leadership’s positional and operational distance evident in most of the other categories is removed, and the leader becomes a part of the group he or she is leading. Operating within the group, leadership is primarily maximizing the group’s functional abilities by recognizing the members’ knowledge and skills and ensuring that all of them are brought used for the common good. This category refers to project leadership in which leadership is fluid in the sense that it changes during the project. In the beginning, leadership is visible during the team’s formative phase, but as the project continues, leadership starts to be viewed as a function of enhancing the group’s operational capacity. In other words, leadership becomes a function of all members at different practical situations.

Team leadership involves two main aspects: team performance and team development. The former refers to leadership’s role in assisting the team to accomplish its specific task, including planning, decision-making, and problem solving, etc. The latter refers to leadership’s role in keeping the team maintained and functioning, including such tasks as developing cohesion and a positive climate, as well as solving interpersonal conflicts. Effective teams are characterized by clearly

defined inspiring goals, results-driven structures, proficient members, unified commitment, collaborative climate, norms of excellence, organizational support, and effective team leadership. Leadership is crucial to the team's effectiveness since it influences the team's functioning through cognitive, motivational, affective, and integrative processes. Through these processes, team leadership maintains the team's focus on the goal, builds the members' confidence, maintains the collaborative climate, enhances and demonstrates technical competence, sets priorities, and manages performance. (Kogler Hill 2004, 203-234.)

In summary, the new categories of description emphasize a closer relationship between the leaders and the followers, and consequently decrease the power distance between the two roles. Followers are valued more in a sense of seeing their potential and also as potential participants in leadership. The authority of a leader is not related so clearly to one's position or personal qualities, but to that person's actions. Leadership is primarily influential through a positive impact, without the authoritarian outlook present in the pre-course descriptions. Together the old and new categories of description may be combined together into a harmonious whole (figure 16). The categories of description that represent the students' new ways of experiencing leadership are colored dark blue.

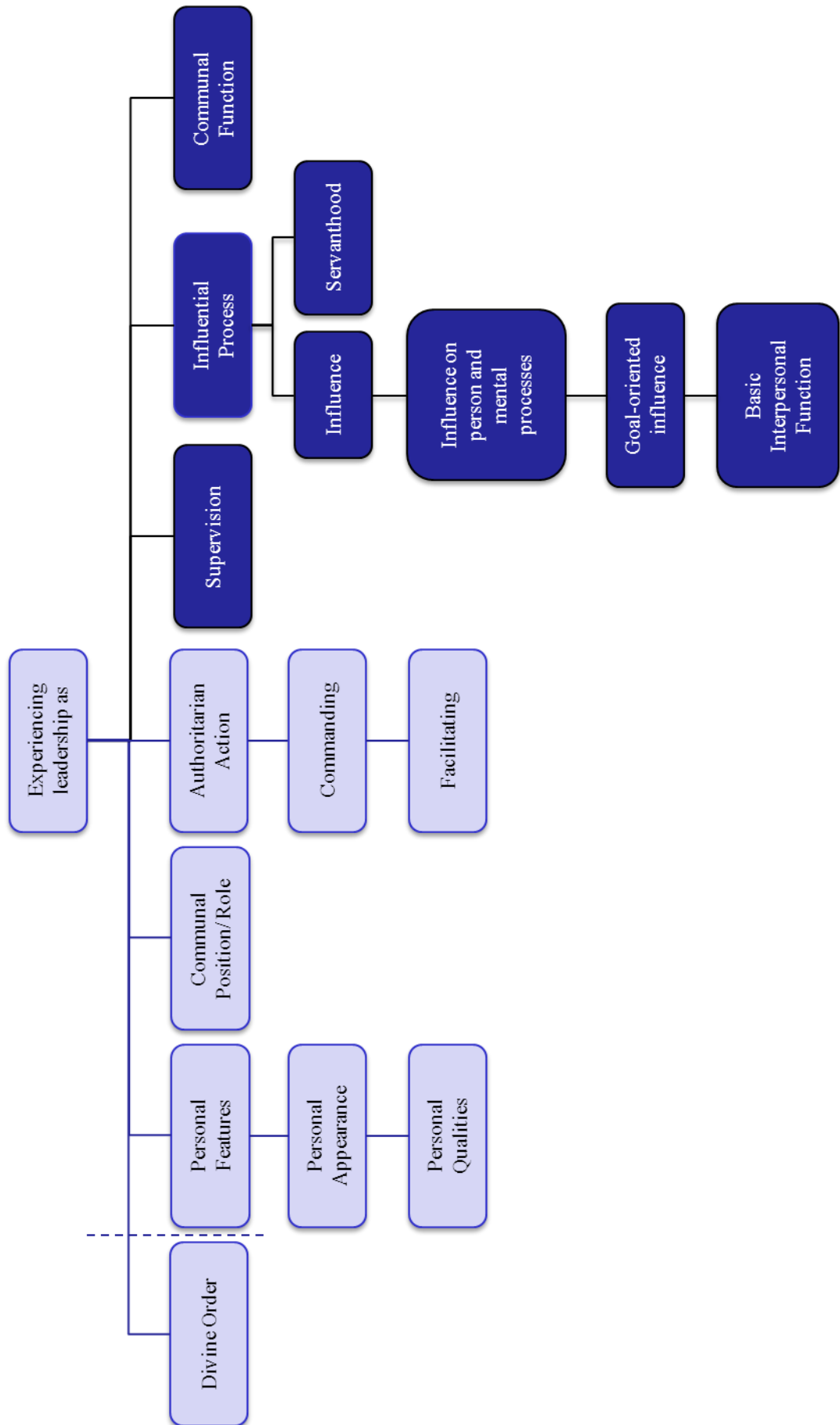


Figure 16. Combined Presentation of the Categories of Description

As stated earlier, the categories of description are assumed to be structurally related to each other because they all describe the same phenomenon. The structural relationships of the categories of description of leadership are displayed below (table 12). The themes of expanding awareness indicate the common themes evident in the different categories of description. The table includes all categories of description, combining the students' experience of leadership before and after the course. The structural relationships indicate that the new ways the students experienced leadership are all located at the same end of the table. This means that the learning changed the students' understanding of leadership to the same direction. In general, the new ways emphasize increased equality between the leaders and followers and consequently an understanding of leadership that includes more cooperation and interdependency and less control.

Table 12. *Structural Relationships of the Categories of Description*

		Categories of Description							
Themes of Expanding Awareness	Divine Order	Personal Features	Communal Position/ Role	Authoritarian Action	Supervision	Influential Process	Communal Function		
Nature of followership	Ontological	Voluntary	Compulsory through structure	Compulsory/ Submissive	Formal	Participative	Cooperative		
Source of leadership	Divine ordination	Personality	Communal Structure	Institutional Power	Position/ Personal Ability	Personal Ability	Personal Ability/ Mutual agreement		
Mode of leadership	–	Modeling	Being	Commanding	Directive	Influence/ Directive	Influence/ Persuasion		
Nature of leadership	–	Passive	Passive	Active	Active	Active	Active		
Leadership position	Given	Given	Given by the culture/ society	Given/ Acquired	Given/ Acquired	Earned	Negotiated		
Purpose of leadership	Run the system	Example	Fulfil the cultural role	Make things to happen	Guiding Action	Induce a change in people	Development of people/ system		

The figure 17 below presents the description of the students' new understanding of leadership. After the course, the primary elements of leadership were influence, leader, followers, and goal. Leadership was considered essentially as an influence by the leader on the followers with a specific goal in mind. The other elements that before the course were considered as the essential in elements were reduced to secondary role. These were still considered as important elements, but indirectly affecting the leader-follower relationship and through that the influence. Leadership as a whole was experienced as a cultural phenomenon. In a similar vein, contextual factors were seen as impacting the influence. Regarding the results, increased emphasis was laid on the impact on the followers.

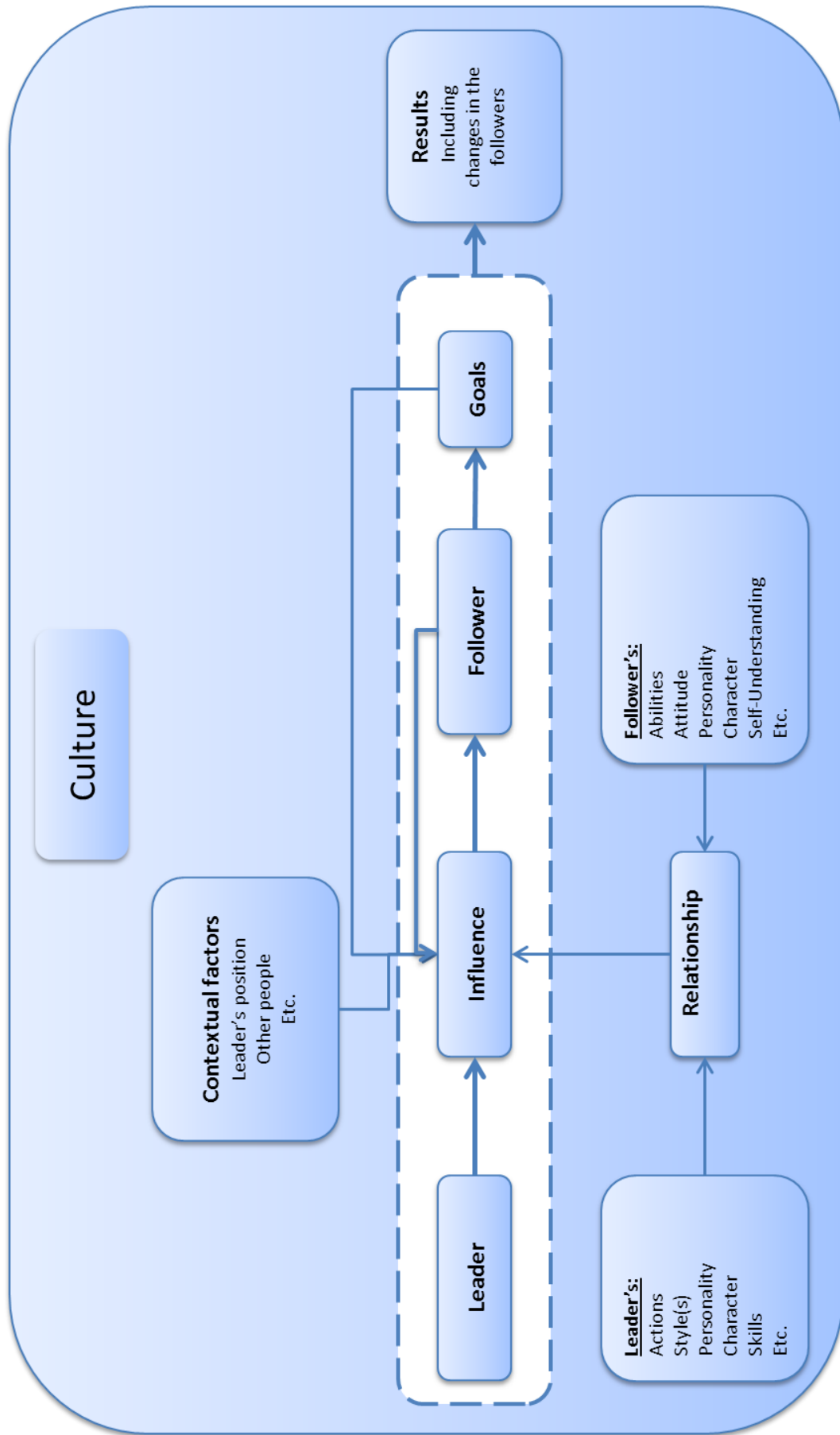


Figure 17. Description of Leadership

5.3 Culture Related Changes

In addition to the changes in the conception of leadership per se, this research was also interested in the relationship between conceptual change and culture, indicated by the second research question:

How do the students' cultural beliefs appear in and relate to the process of intentional conceptual change?

The interest in this relationship is descriptive, not explanatory. This means that the aim is to describe the relationship between conceptual change and culture as it appears in the students' expressions, without an interest in why it is so. This follows the typical phenomenographic practice, which is interested in describing the experience rather than establishing reasons for it (Marton 1994, 4425). The data reveals, as expected, a close and multidimensional relationship between the two. These include changes in conceptions that are closely linked to the conception of leadership, and also culture's impact on the process of change. These results are presented below.

Culture's impact on the change process has been noted in conceptual change research. Culture is considered as the framework within which the change takes place. Ferrari and Elik (2003, 40), in their model of influences on intentional conceptual change, identify culture as a mediator in conceptual change. In the model, the cultural framework creates a person's reality through cultural canonical concepts that frame conceptual understanding. Naturally, even in this model, culture may have a decisive role, although in a somewhat different way.

The results indicate some specific characteristics about the relationship between cultural beliefs and intentional conceptual change. First, the instruction challenged the students' conceptions of time and human relationships in leadership, both of which are worldview level, personally held, cultural conceptions. With some of the interviewees this led to a change in their cultural beliefs and in their beliefs about leadership. Others, however, did not express any change in their worldview conceptions nor did they express any modifications in their conception of leadership. Second, the course changed the students' understanding of specific cultural

conceptions such as time management and effectiveness. As a result, some experienced a change in these conceptions that also influenced their understanding of leadership. Third, characteristically collectivist cultural beliefs of communality and a holistic view of life seem to challenge the process of change.

5.3.1 Leader-Follower Relationship

Leadership conception is attached to a web of other conceptions that are affected when conceptual change takes place. One of the observed changes was the relationship between the leader and the followers.

“When I talk of this is ...aaa..., you know, when you are not, (when) you put yourself in a position that you are not equal to other people there is a kind of a respect they give you, there is a kind of a esteem they give you. But now when you change from the position that you have been given this the kind of esteem the kind of respect that have been given you and it is like you are bending towards them to be like the same level with them.” (Interviewee #13)

“Surely not very, but not very new but what I can say is there was a kind of a place I have not reached. I have been a servant serving people but there was a level that I would not reach which kind of a level is this. I used to serve people and that is what I call servanthood. I used to serve people in terms of their needs ...they need encouragement, instructions that kind of a thing but now the kind of bending and doing what they are doing especially you know when you are washing a toilet washing a church surely those kind of a thing is not it cannot be related with somebody who is a leader. A person who is used to be giving the direction the person who is respected so that kind of a thing actually it is what I am trying to explain.” (Interviewee # 17)

These two excerpts are examples of the change that has taken place during the course. The central conceptions in this reflection are position, hierarchical relationships, and respect. The essential change in view concerns the hierarchically organized relationships and their role in leadership. The student has experienced a change in the way he regards other people and how he acts towards them. The earlier strong separation has changed to stronger equality.

This change is noteworthy, because it shows the impact of cultural conceptions on one's leadership conception. In other words, the change in the student's conception of the leader-follower relationship changes the content of the conceptions through which he describes leadership, although the same terms are still used. Even after the course, the students still use the terms position and serving to describe leadership, but now these terms have a new content. After the course, separation was not considered an essential aspect of leadership. Rather, instead of separation, the students now talked about a close relationship with people. This shows a modification that consequently causes rather fundamental changes in the main conception as well. Earlier, position referred to hierarchical order, which was considered essential to the leader's identity, since it guaranteed the expected respect associated with leadership. After the conceptual change, position still remains as an aspect of leadership, but it is no longer functionally limiting. Similarly, the conception of serving has changed from facilitating to cooperation.

How one views other people belongs to one's worldview conceptions. Koltko-Rivera (2004, 3-58) presents a collated model of worldview that follows rather closely Aerts et al's (2007) model. The model consists of seven main groups that serve as collectives of two or more dimensions each, which deal with a particular topic of worldview beliefs. Koltko-Rivera's (2004, 29-31) seven main groups are: human nature, will, cognition, behaviour, interpersonal, truth, and, finally, world and life. For example, the human nature group consists of three dimensions: moral orientation, mutability, and complexity. These dimensions have two options each. Thus it includes a person's beliefs on human nature, i.e., whether it is good or evil (moral orientation), changeable or permanent (mutability), and complex or simple (complexity).

In Koltko-Rivera's (ibid.. 33-34) model, this change belongs to the Relation to Group dimension in the Interpersonal Group. The dimension's two options are collectivism and individualism. The change experienced by the students displays movement from individualism to collectivism, i.e., the group's agenda has become more important than the person's personal desires and goals.

Worldview is thus an important construct or conception, because human cognition and behaviour are influenced by the person's beliefs and presuppositions about reality

and life (Koltko-Rivera 2004, 3). The phenomenographic non-dualist ontological perspective seems to accentuate the importance of the recognition of a person's particular worldview as it lays a heavy emphasis on experience. First, the world experienced and the person experiencing are not separated. Second, it is always a person experiencing, and the person's worldview is a constitutive part of this experience.

5.3.2 Conception of Time

The students expressed two time related changes in their conceptualization of leadership in the second interview. First, the interviewees' conception of time itself had changed. Second, after the course time management together with the conception of effectiveness had become a part of their leadership conception. The two changes seem to be closely linked together. The existing traditional conception of time did not allow the students to modify their conception of leadership simply by adding time management into it. Instead, they were forced to reconsider their conception of time itself.

The students' descriptions of conceptual changes during the course included change in the conception of time itself. This change is evident in the following excerpts:

“Let me talk of time. I thought time, I can make time. But I discovered I cannot make time at all, however much I can do, I cannot even buy it. Once it is gone it is gone. And it is very essential to a leader, I discovered, so I think those things made me really change my attitude.”
(Interviewee # 11)

“We do believe that we have a lot of time so there is no hurry so to me I believe it is our mentality is bad.” (Interviewee #12)

The participants express a rather fundamental change in their conception of time as the change concerns the ontological nature of time (table 13). The two excerpts above demonstrate the differences between the old and the new conception quite well. Before, time was considered as something that could be made when needed, reflecting

an idea of time as an event, a conceptualization in line with Mbiti's (2002) description. In contrast, the words "once it is gone, it is gone" reflect a different kind of conception, which is actually closer to a lineal and an abstract concept of time. The idea of being able to make time also implies that time is something concrete, a product of human effort and doing. The new conceptualization implies that time is an abstract entity. Another notable aspect is control. In accordance with the traditional African conception, time was understood as being under the control of an individual. In the new understanding of time as an independent entity, it cannot be controlled anymore.

Table 13. *Summary of the changes in the conception of time*

Old Conception of Time	New Conception of Time
Event	Lineal
Controlled	No control
Concrete	Abstract
Unlimited	Limited

Time is an indispensable dimension of human reality in general and social and organizational life in particular. Together with space, time is a tool through which we understand the world, organize external reality to a meaningful and conceivable whole. Every human culture has created its own relationship to time and finitude (Adam, Whipp & Sabelis 2002, 1.) Tähkä (1989, 56-62) defines time as an important element of personal human experience. Human consciousness depends on time, as there is no consciousness without time. Two commonly used conceptions and descriptions of time are cyclical or polychronic and lineal or monochronic. In this division, cyclical time refers to a system in which time is considered as a set of repetitive events and tasks that give life rhythm. The lineal conception, on the other hand, considers time as mechanical and standardized, a continually proceeding abstract entity that is being measured by clocks. (Fatehi 2008, 155-157.) The importance of time is probably equal in both systems, although it is easier, at least for a European, to consider the prominent role of time in the lineal system, due to its existence irrespective of any concrete events or essences. In the cyclical conception,

the determination of importance of time itself becomes more difficult to perceive as time corresponds with events and everyday cycles of life and the difference between the two is difficult to determine.

According to the East-African philosopher John Mbiti, Africans traditionally consider time as an event, or “a composition of events which have occurred, those which are taking place now and those which are immediately to occur” (Mbiti 2002, 17). This means that time is not a separate abstract entity but is recognized and becomes meaningful only when experienced concretely. Mbiti (ibid.) further divides African understanding of time into three parts: no-time, potential time, and actual time. The no-time category refers to things or events that have not happened or are not likely to occur in the immediate future. Potential time refers to things or events that will certainly take place or belong to the on-going rhythm of natural phenomena. Lastly, actual time refers to the things or events that are taking place now or have happened in the past. In this system, the basic division of a day as a 24-hour period is into two equal periods of 12 hours; the term day refers to the time period from 6am till 6 pm, while the term night refers to the period from 6pm till 6am.

In accordance with the general framework, time is not being calculated lineally, but rather the day is divided by the important practical events and “timed” by their order with regard to other events. In the larger annual cycle of life, as with days, time is composed of events, only on a much larger scale. In addition to regular, cyclical events of natural phenomena, e.g., rain and dry seasons, as well as planting and harvest times, more exceptional or irregular events, e.g., somebody’s death, great storms, or floods, are used as significant time indicators. In traditional societies these events were naturally linked with agricultural life. (Mbiti 2002, 15-28.)

Mbiti (2002) considers the African conception of time as an important and fundamental explanatory framework that makes African ontology understandable. He uses two Swahili-language concepts: *sasa* and *zamani*, meaning now and long ago/ancient, respectively, for locating ontological categories time wise. The main emphasis of *sasa* is in the near future, present, and recent past, while *zamani* is in the past, but there is actually some overlap in the way the two concepts refer to events that occurred in the recent past (Mbiti 2002, 18.) Human life is thus both present and

past oriented. As *sasa* includes also the near past, the recently died people, i.e., the so-called living-dead persons, still belong to the *sasa* period and continue to be a part of everyday life for the people still alive. After some decades or centuries, i.e., after they are no longer remembered by name, they move to the *zamani* period and become practically forgotten, moving from one ontological category to another. Notably, the traditional conception of time does not have a separate concept for future time. Therefore, it can be said that African ontology is strongly anthropocentric and hence emphasizes existence and continuation, i.e., elements included in the present and in the past, since time flows backward from the present. It has therefore been important for people to emphasize marriage and procreation, since they ensure the continuous existence and remembrance of the past generations in the future.

According to Boon (2007, 6), the African time conception is “diametrically” opposed to the Western understanding. Whether the difference is this substantial or not, there are some important differences between this kind of conceptualization and the typical Western understanding of time, and these differences are seemingly relevant to this research. First, there is no conception for the distant future in the African concept of time. Mbiti (2002) limits the conception of the future in the African time conception to roughly two years, i.e., to something that on an annual cycle of life falls within the potential time. Secondly, the idea of wasting time is traditionally largely an unknown concept. When a person is doing something concrete he or she is creating time through that action. If somebody is apparently inactive, the person is either waiting for time to happen, in which case time does not exist as of yet, or the person is producing time, e.g., by thinking, but in both cases time is not being wasted. (Mbiti 2002.)

Mbiti’s (ibid.) description comes from some forty years ago. It seems safe to assume that commonly speaking African thinking and the African conception of time have changed through such factors as cultural development and globalization at least to some extent since Mbiti’s (ibid.) time. However, despite of these assumed changes that have presumably taken place, e.g., in Kenya during the past decades, the interviewees expressed having held conceptualization of time remarkably similar to that of Mbiti’s (ibid.) description prior to the course.

“...So to now my mentality was from my background contribute or will affect me one way about time.” (Interviewee #12)

“We do believe that we have a lot of time so there is no hurry so to me I believe it is our mentality is bad.” (Interviewee #12)

“In African context one thing that we usually understand the time, for example the start of a new day is [when it is during the day] in the morning that in African context [when] that is the beginning of a new day. And we have, you know, to do what is expected of us and after you are through you can just sit down. And you know relax or you wait until it is evening.” (Interviewee # 14)

Although the students link their conception of time to Africa and to their cultural background, the purpose is not to claim that the students would hold on to the traditional ontology or conceptions in all details or finesses. However, their expressions do suggest that they considered the traditional conception of time as valid. There are at least some other statistics that point to the same direction. Boon (2007, 6) refers to a South African survey, which shows that 66 percent of rural and urban South Africans believed in the continued existence of their ancestors, a belief that according to Boon (*ibid.*) is directly related to the conception of time as well.

This kind of change in the conception of time implies a relatively fundamental change. Chi (2008, 61-101) recognizes three different kinds of conceptual changes: belief revision, mental model transformation, and categorical shift. The most difficult type of conceptual change, a categorical shift, occurs when a conception is assigned to another conceptual category laterally on the highest categorical level. Vosniadou (1994, 48-49), on the other hand, recognizes three kinds of conceptual change: enrichment, revision of a specific theory, and revision of a framework theory, of which the last one represents a conceptual change *per se*. It seems that the interviewees' change in conception of time from a concrete, controllable event, to an abstract independent entity is rather similar to Chi's categorical shift and Vosniadou's change in the framework theory. (More detailed descriptions of Chi and Vosniadou's models are presented in the conceptual change section).

Change implies a mind-to-world-fit type of change in which a personal conception is changed to fit the world (Searle 2004, 168). However, this change should not necessarily be considered as a change from wrong to right in any absolute or larger contextual sense. In other words, the cyclical conception of time in itself and in its relation to leadership may be as right, relevant, and practical as the lineal conception. The appropriateness and relevance of either conception depends on the context and on whether other relevant societal and cultural aspects, or in our case instruction in a formal setting, support that kind of a time conception. It seems plausible to assume that the change in the time conception became necessary for the students due to their acceptance of the course material that was based on a lineal time conception.

5.3.3 Time Management and Effectiveness

“I have also learned time management. I came to realize that time is of great importance.”
(Interviewee # 12)

“Now, one thing I understand time is essential element in the life of a leader.” (Interviewee # 14)

In the first interviews, the interviewees did not express time management or effectiveness as part of their conceptualization of leadership. In the second interview, however, a number of students mentioned both of the new conceptions and further stated that they are essential to leadership. The learning of neither conception per se requires conceptual change. This type is better classified as an ordinary type of learning in which the student’s knowledge changes by simple accretion. However, the change here seems to be noteworthy, as it indicates a “chain reaction” type of process. It is initially connected to the above-described change of a person’s time conception, and the time-management – effectiveness connection seems to indicate a similar linkage.

“Europeans they think there is no time and that is why they have achieved much. They look on big achievement while as the Africans we never care. We are here to eat and stand die tomorrow and go away.” (Interviewee # 11)

The students' experiences of time's relation to effectiveness after the instruction (figure 18) display a simple hierarchy of three separate categories.



Figure 18. *The subcategories of time's relation to effectiveness*

In this simple hierarchy, the upper levels are inclusive of the lower levels in a typical phenomenographic style. The upper levels display an increased length of time and scope of planning, and an increased level of effectiveness.

In the first category, regardless of its overall simplicity, time is already considered to be an abstract entity detached from the control of human beings.

“If I made an appointment with you, me an African I am comfortable to call you and say I am sorry I did not make it today can we meet tomorrow...So even though you have scheduled I will be very comfortable to say ah I talk to him tomorrow. Never mind.... It was making me to fail me to accomplish my goals.” (Interviewee # 11)

In this category “utilization of a present moment,” time is considered important when something happens or is at hand. This category includes such things as punctuality and making the most of an opportunity. It displays the lowest category of effectiveness, because effectiveness is not pre-planned and directive with regard to the person's actions.

The second category goes a step further from simple punctuality to a system of organizing one's activities.

“Before, I used, you know, if doing something, you know, I do this thing before I finish this thing, you know, I was still doing, you know, trying to do something else. And that one brought out, you know, confusion... and now I have to do the right thing at the right time so as to achieve the goal of the day.” (Interviewee # 14)

This “being organized” category includes the previous “punctuality” category, but adds into it a basic level of planning and order. In this category, a person takes control and organizes duties and tasks and recognizes also the optimal time of action. This means an increased level of effectiveness, as the period of time under conscious control grows longer.

In the third category, the recognition of time is extended still further and thereby involves detailed and programmatic planning.

“You know, in Africa there is the belief that we have plenty of time and now coming and planning your second and every minute you spend you feel it is not, that is really a challenge.” (Interviewee # 4)

“Before you know as a leader could just you know tell someone do this or I could just conduct some you know without having a program of without you know doing something without achieve a goal. Just you know to tell somebody to do just a work.” (Interviewee # 14)

In this “planning” category, the period of time extends still further into the future. The increased level of effectiveness is acquired by more comprehensive planning, which includes a detailed program. Effectiveness is also visible in the leader’s identification of specific goals that highlight the importance of time and optimize its use.

These categories reflect the four generations of time management by Covey (1999). In the first generation, such things as notes and checklists were introduced in an effort to recognize all the issues that belong to a leader’s life. During the second generation the emphasis was on the future, as the attempt was to schedule future activities using calendars and appointment books. The third generation brought along prioritization, an attempt to recognize the basic values and value-based activities that would produce better results. It also marked the introduction of daily planning and short-, mid-, and long-term goal setting. Covey (ibid.) sees the current time as representative of the

fourth generation of time management. It has been recognized that time itself cannot be controlled and time management is thus a somewhat misleading concept. Hence, the current emphasis is on self-management and human relationships in general in order to get better results (Covey 1999, 149-150).

The changes in the conception of effectiveness reflect the idea of a time-based competition that also specifically links time and leadership together. Its basic idea is to be more competitive by minimizing the consumption of time and consequently attention is given to the time spent on important work processes. Time-based competition is an attempt to rationalize and improve production efficiency by becoming more customer-oriented and efficient in production costs. (Karlöf 2004, 15-16.)

Expressing novelty of such rather basic ideas as systematicity and planning may sound surprising. However, this becomes understandable if we consider the mental cultural framework within which the students understood the conception of time prior to the course. First, as noted above, traditionally, the future did not have primary importance to the people. Consequently, planning was not something that people would be inclined to do, as in some sense it belonged to the no-time category. Secondly, as the measuring of time by clocks and watches was not customary, exact time keeping was impossible since minute schedules were commonly considered as an exaggeration. In other words, what mattered was the event, not the precise time the event took place.

As stated above, the changes in time related conceptions indicate a “chain-reaction” type of process, in which the requirement of change continues from one conception to another. During a course, the students are confronted with the conception of effectiveness. In itself this is a relatively simple conception, and probably familiar to the students from other contexts. However, to be understandable in this particular context, it requires the conception of time management. This in turn requires a change in the students’ conception of time; otherwise time management as handled in leadership literature has little if any meaning. Thus these changes display a requirement of a chain of continuous changes, whether smaller or bigger. In addition,

effectiveness reflects, in this case, a change of experiencing leadership as influence instead of as a position.

This type of process that requires changes in other conceptions is included in the theories of conceptual change. Vosniadou's (2008, 8-10) framework theory includes various beliefs and presuppositions that might require modification in a process of change. Similarly, diSessa's (1988, 49-70) "knowledge in pieces" view assumes changes in the p-prims and the way they are connected to each other when conceptual change takes place.

5.3.4 Change in Progress

The students also experienced a change that was initiated during the course, but which was still in progress at the end of the course. The participants experienced the college learning situation as an inadequate place for formulation of their final opinion.

"Yeah, I can say I am not finished yet with that, because there is still some other things I want to personally...aaa... as a leader I am still watching, observing, doing research on these parts, so that I can come up very strongly to declare that now this is what I found out and I am standing on this ground." (Interviewee # 7)

In this type of change, the course in itself did not convince the students completely, but they need more time to consider the conceptions at hand. The setting, i.e., an academic course, the classroom, and affiliated exercises, was not experienced as the proper place or means in which to invest final authority regarding this issue. The course as a whole served as the trigger to the process, but leadership was considered to be such an important conception that it needs additional verification as well.

This change-in-progress fits well into the general theorization that recognizes the process-type nature of conceptual change. Vosniadou (2003, 382) describes the process as "slow and gradual" in which a person's beliefs and presuppositions are replaced over a period of time. However, there is a difference in the reasons for the delay of change. Regarding scientific conceptions, the challenge in achieving quick

changes lies in the coherence and power of the intuitive explanatory framework theory and the foreignness and difficultness of scientific conceptions. In contrast, the reason for postponement in this case is a lack of opportunity to verify the truthfulness of the new conception in practice.

As stated above, the change-in-progress is linked to the experienced nature of leadership. Leadership differs to a certain extent from the conceptions of the domains of knowledge within which much of the research on conceptual change has been conducted, such as math, science, and chemistry. Scientific concepts are explicit, they carry the same meaning, and they are explicitly and uniformly defined. From an instructional point of view, physical objects, unlike historical conceptions, can be manipulated and students have personal experiences with them, which forms a basis for teaching and understanding. (Limón Luque 2003, 140-148; Limón 2002, 260-265.)

It seems that leadership conception shares similarities with historical conceptions. According to Limón (2002) and Limón Luque (2003), historical concepts are implicit and often presented in narrative form, which makes their identification difficult and forces students to deduce their meaning from the text. Leadership is also an abstract concept, and hence difficult to get a grasp of. For this reason, perhaps, it is also an ill-structured concept, defined in numerous different ways, which are all supported by evidence (see e.g. Peltonen & Ruohotie 1991, 150-166; Juuti 2006, 160).

In addition, leadership changes its meaning over time, even in a relatively short time. These different definitions also overlap each other both chronologically and thematically and thereby cause a situation in which several definitions are equally valid at the same time or in which a new definition is formed, as seems to be the case, e.g., in situational leadership (Northouse 2007, 91-112). Leadership concepts are thus debatable just like historical concepts (Limón Luque 2003, 145). This debatability has been noted to cause students to hold on to their opinions in the lack of definite authority. The students' personal experiences are the place where leadership conceptions coincide with scientific conceptions. However, quite often people have a rather rich variety of personal experiences of leadership from various contexts, such as family, school, peers, etc., and therefore they have at least an intuitive

understanding of what leadership is. In the kind of situation described above, it might be easier to maintain, at least partially, the existing conception, but if this is done, conceptual change may prove difficult. Ill-structured conceptions are also noted to be closely connected to one's inner dispositions and thus difficult to change (Hynd 2003, 294). Leadership is innately linked to persons and this may cause students to form beliefs about particular persons instead of conceptions of leadership (Limón 2002, 262).

On the other hand, just like Hallden (1997, 203-209) comments on teaching history at school, these differences might not be that great in practical learning situations. Usually at school one theory is presented as the right one. Hence, this theory becomes the authoritative understanding in that specific context, which is rather similar to how the prevalent scientific conceptions are considered authoritative in a learning situation. Also the language differs in the formal educational setting from everyday language and thus the conceptions are defined differently. This was seen to be the case in this research as well.

To place emphasis on the socio-cultural nature of leadership is not to deny the partial social nature, use, or formation of conceptions within other domains of knowledge. However, these conceptions usually have one commonly agreed meaning and the practical application of these conceptions seems to be a rather individual issue. For example, compared to such scientific conceptions like force or photosynthesis, conceptual change is primarily a personal process. In addition, the application of these conceptions is to a large extent an individual matter and therefore a change of culture or of a particular context has relatively little if any effect on their use. Consequently, to experience conceptual change in terms of understanding, accepting, and using of the new scientific conceptions can also be considered predominantly an individual exercise.

In this change-in-progress category, two dimensions that explain the reasons for delay became evident in the data: practical application as the testing method and influence of other people in the real life leadership situations. These two are explicated in more detail below.

The two seem to stem at least partially from the students' collective culture. The students do not separate conceptual learning of leadership and its practice from each other. This reflects the holistic view of learning typical in collectivist cultures. Mbigi (2005, 26-27) identifies learning by doing, learning as a collective effort and as a social process, and learning by teaching as the practices of African collective learning systems. The consideration of and role given to other people seems to reflect the communality of African culture in which learning is a collective effort that enhances the interdependence of all people.

5.3.4.1 Application as the Final Criterion

This category represents a dimension within the process of change-in-progress. The excerpts show that in the interviewees' mind a successful application of the new leadership conceptions serves the crucial and decisive role in making the final decision between a right and a wrong conception of leadership.

“But now this one demands that I apply it. Either immediately, or in the course of my life, somewhere down the line I have to apply it. And see it for myself so that I can recall and see that the decision that I made was it the right one or was it wrong.” (Interviewee # 8)

“But I think I will have to, as I continue learning, as I continue getting into it practically, then I am going to know where to adjust. Ok, I am already adjusted into some things, but if I realize something is not working, then I am going to make also addition. I am going to know what to do. Yeah.” (Interviewee # 5)

The students in this category are willing to take a lasting stand in the issue only after a successful practical try-out. The students thus tie conceptual learning and practice closely to each other by using the practical successful applicability and functionality of the learned concepts as the final determinants in their understanding of leadership.

This approach to learning reflects Gadamer's (2006, 306-307) idea that in the hermeneutical process, understanding, interpretation, and application are not three separate ideas but comprised together into one unified whole. This principle is also evident in the theories of conceptual change that consider the change actual only after

a person uses the new conception in practice (Strike & Posner 1985). However, the application of scientific conceptions is somewhat different, as it is often mental and personal rather than social and communal.

In the traditional model for conceptual change (Strike & Posner 1985), conceptual change was considered to result in the replacement of the old conception by the new one. Thus the acceptance and use of a new conception indicated that a person had experienced conceptual change and the process of change as a whole was a rather straightforward and clearly limited matter. However, this view of replacement has been challenged by later research, as it has been shown rather convincingly that the old conceptions continue to co-exist rather persistently side by side with the new ones (Pozo, Gómez & Sanz 1999, 161-163). People have been found to continue to use the old scientific conceptions especially in everyday life simply because they are familiar, there is often no pressing reason to abandon them even if their preciseness is questioned, and they are useful. Consequently, determination of possible conceptual change is no longer such a clear-cut issue. Even if a student fails to apply the newly acquired conception in practice, he or she has still expressed an ability to experience leadership in a new way, and thus has experienced conceptual change. On the other hand, the aim of education is not to offer only a collection of experiences, but also to change peoples' practices. Thus permanent change and practical use are still part of conceptual change.

The role given to practical application by some students seems to reflect a specific orientation to learning. Beaty, Gibbs and Morgan (1997, 77-83) divide the students' learning orientations into vocational, academic, personal, and social categories, each of which is further divided into intrinsic and extrinsic orientation. Academically oriented students are primarily intellectually interested in the subject. In contrast, vocationally and intrinsically oriented students place emphasis on the practical side of a course and are critical to the parts of the course, which they consider to be irrelevant to their future careers. As the concept map about the students' goals below indicates, many of the students of this study had vocationally oriented goals.

The postponement of the formulation of a final opinion means that it takes place in the students' future local contexts. This in turn means yielding a rather influential role to

the local socio-cultural context. It seems safe to assume that the understanding of leadership of other people reflects the local culture, and this is potentially contrary to the conceptions the students have learned during the course. Thus the final decision regarding change depends on the students' evaluation of the success of their new conception(s) in the middle of a different leadership culture.

5.3.4.2 Role of the Followers

Another dimension related to the change-in-progress category is the role of followers on conceptual change. The following excerpts demonstrate that the students anticipate opposition to the conceptions taught during the course.

“Now, what I have learned I will put it in practice... (but) I have to be someone with patient (patience), and if my pastor say no, you will not have any teaching here, I should keep quiet... I will wait my time. I will wait my time because I cannot stand and fight against him.”
(Interviewee # 3)

“Definitely I believe that there are some challenges and difficulties that you would face or that I might face. Why? Because also the people that I lead they also have a kind of view that I used to have and they expect maybe me to be dictating. You know, they are expecting me to stun in words, to be somebody who does not need, who is correct. Something like that.”
(Interviewee # 9)

The excerpts seem to indicate that the students anticipate pressure against their new learning basically from two groups; first, from their superiors and second, from the people they are supposed to lead. Assumably neither group has received similar learning of leadership as the students, since the students expect some kind of conflict between the new conceptions and the old conception held by the other people.

Ajzen's (2005, 117-120) theory of Planned Behaviour recognizes social pressure as one essential determinant of human behaviour. According to the theory, the immediate antecedent of behaviour is assumed to be behavioural intention. This intention is considered to have three conceptually independent determinants. The first, attitude toward the behaviour refers to the degree to which a person has a favourable

or an unfavourable evaluation of the behaviour in question. The second, subjective norm refers to the perceived social pressure to perform or not to perform the particular behaviour. The third, perceived behavioural control refers to the perceived ease or difficulty of performing the particular behaviour in the light of past experiences and anticipated obstacles. These three are aggregations of specific behaviours, observed in different situations providing a better measure of behavioural disposition than any single behaviour. As antecedents to these three, the theory recognizes salient beliefs. Behavioural beliefs are assumed to influence attitudes towards the behaviour in question, with normative belief assumed to constitute the underlying determinants of subjective norms, while control beliefs are assumed to provide the foundation for perceptions of behavioural control. A person may have numerous beliefs concerning a particular behaviour but is able to attend only to a small number of these at any given time, and these particular beliefs become the determinants of the intention in a specific situation. The basic assumption of the theory is that the more positive the attitude and subjective norm, and the greater the perceived behavioural control, the stronger the person's intention to perform the behaviour in question needs to be (Ajzen 1991, 188-189). The function of determinants of intention is considered to vary from one situation to another so that in some cases only two of them may be enough to explain behaviour; while in other situations all three are needed.

Normative beliefs that lie behind the subjective norm are concerned with the likelihood that the important referent that individuals or groups approve or disapprove of performs a particular behaviour (Ajzen 1991, 195). The interviews indicate that the two most important referent groups in the current research are, firstly, the students' immediate organizational superiors, and, secondly, the people they are supposed to lead. These two groups are the main parts of the social context within which the students will practice their leadership. As the students maintain an open conceptual position regarding the final determination of what leadership actually is, and use their success or lack of success in practice as the final determinant, these two social referent groups seem to possess, at least potentially, an important role in the students' conceptual learning.

The process of conceptual change has commonly been viewed as primarily an individual and psychological phenomenon (Pintrich & Sinatra 2003, 438). The role of

socio-cultural factors is recognized, but often limited to how peers, teachers, and physical learning contexts influence conceptual change (see e.g., Hatano & Inagaki 2003, 407-427). This is not surprising since the research concentrates on instruction-induced change. The results of this study suggest that a much larger context plays a critical role in the process of change and extension of the process beyond the limits of the immediate learning context.

5.4 Types of Conceptual Change

As the text above indicates, the students experienced various changes in their ways of experiencing leadership that can be grouped into categories. Some of the changes are classified as no change, because they represent types of changes that are not considered as conceptual change in this research. The observed conceptual changes include: ontological change, change in the constitutive elements of leadership or in their mutual relationships, increased complexity of the leadership conception by introduction of new elements, changes in background beliefs, and changes in progress. These different types of changes are presented graphically in figure 19 below, followed by a more detailed written explication.

Classification of different types of changes is typical to conceptual change research (figure 19). Basically, this arises from the basic definition. It is meaningful to separate conceptual change from other forms of learning that also include changes in one's conceptions in order to maintain the distinctive nature of the approach. From a phenomenographic perspective, basically any kind of change could potentially be classified as conceptual change. The emphasis in phenomenography is in the description of new ways of experiencing a phenomenon and not on the nature of mental representations or kinds of cognitive structures, and consequently the primary interest is not limited to certain types of changes or their classification into weak or strong changes. Also, because the difficulty of conceptual change from the phenomenographic view is not located in a specific type of cognitive structure but in the lack of experienced variation, the classification carries less weight. In this sense, it could be argued that any change is conceptual change from the phenomenographic

perspective. However, phenomenography seems to offer a natural way of classifying these different types of changes by utilizing the structure of awareness (Marton & Booth 1997). The following paragraphs provide this typification. Two types, change in progress and changes in the background conceptions, are not included here, as they have already been handled in detail above.

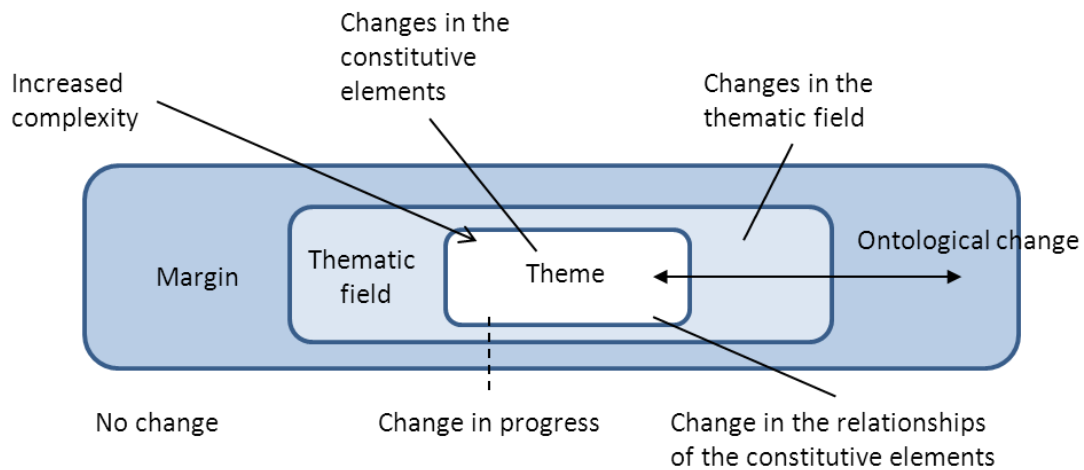


Figure 19. *Presentation of conceptual changes in relation to the theme of awareness*

However, in order to keep the term meaningful as separated from other learning, the more traditional definition of changes might be practical, although all kinds of changes are valuable learning experiences.

As stated above, some experiences of learning that led to changes in the students' knowledge are not classified as conceptual change. In these cases, the students' learning during the course consists of additions and modifications to leadership related conceptions, but not to the leadership conceptions per se. These included learning the existence of new leadership styles, new leader characteristics, ways of handling relationships, and so on.

5.4.1 Ontological Change

The experienced change of the interviewee below stands as a representative of a change that may be best characterized as ontological by nature, because the

fundamental elements of leadership have changed. Describing his experience of leadership before the course the student states:

“Before I just thought that ...the moment you are in a position you are just a leader leading those people so regardless of what you are doing you are just a leader...I just took leadership as a anybody is just a leader provided that you have people that you are leading or you are in any position. You are just leading. You are just a leader. That is how I used to understand it.”
(Interviewee # 7a)

The following excerpt displays the same person’s understanding of leadership after the course:

“I have come to understand personally that leadership is about influence and character...It is very true that you can be in a position but not a leader ...my focus is that I want to sit down with these people and give them a piece of my mind how I understand this thing. In that I show them the importance of maybe this system and the disadvantage of this system and the system that I want how things to run I show them the importance and also the disadvantages so that they can see which one we are suppose to buy or to employ in our church set-up.”
(Interviewee # 7b)

The excerpts display that the constitutive elements of the student’s experience of leadership have changed. Before the course, the focus of awareness was occupied solely by position. The exclusiveness of the earlier experience is evident as the student’s emphasis is on the position of the leader to the extent that the leader’s actions are irrelevant to leadership. The student also mentions the leader and other people, but these do not have the same ontological status as does position. The leader is present simply as a person who occupies the position. Similarly, the other people are essential to leadership only in the sense of providing a social organization that makes position possible. In other words, the leader and the other people are part of the framework, without forming any actual part of leadership per se, which is experienced solely as position.

After the course, the experience of leadership has changed. Leadership is thought to consist of character and influence. What underlines the change is the idea that a person may be in a formal position of authority without being a leader. Leadership is thus separated from mere positional leadership rather emphatically. The

understanding of leadership changes as the focus of awareness is no longer on the position of the person but on the character and activities of that person. Thus it seems to be safe to say that the ontological elements of leadership have changed because leadership has changed from being a static impersonal phenomenon of societal or communal organization into something a person is and does.

This type of change seems to resemble the model of conceptual change as an ontological shift (Chi 2008; Chi, Slotta & deLeeuw 1994). Chi's (2008) and Chi, Slotta and deLeeuw's (1994) theory draws attention to the fact that there are qualitatively different kinds of intuitive knowledge that require change. Some knowledge requires only a small modification, while others call for major revisions in a person's conceptual structure. Chi et al (ibid.) theory of ontological shift has been developed in the domain of physics. According to the theory, entities in the world belong to ontological categories on the basis of their basic nature. The primary ontological categories in physics are matter, processes, mental states, and substance-based (Chi et al 1994, Slotta et al 1995, Reiner 2000). The matter category objects have ontological attributes such as "being containable" and "occupies space," the objects of the processes category have attributes like "occurring over time" and "resulting in," while the substance-based category includes attributes such as "locational" and "pushable" (Reiner et al 2000). An ontological attribute is a property that an entity may possibly have as a result of belonging to that particular category. The ontological attributes are differentiated from defining attributes that an object must have and characteristic features that the object typically has.

The members of different ontological categories do not share common attributes, but the attributes are mutually exclusive between categories. Within the major ontological categories there is a hierarchy of subcategories. Thus the matter category includes subcategories such as "natural kind" and "artifacts," and the natural kind subcategory may include such subcategories as "living" and "non-living" with subcategories of their own and so on. These subcategories may be ontologically distinct from each other but they do share a higher ontological attribute that locates them within one particular category. The nature of the students' prior conceptions plays an important role in conceptual change. Chi and Roscoe (2002) divide these prior conceptions into two categories: preconceptions and misconceptions. Preconceptions refer to incorrect

naïve knowledge within an ontological category that can be changed relatively easily, while misconceptions refer to robust incorrect naïve knowledge that is attached with, and misplaced within, the wrong ontological category and for that reason is highly resistant to change.

In Chi et al's theory, conceptual change is understood to take place when a concept is transferred from one ontologically distinct category to another. Thus conceptual change per se refers to the processes and results of repairing misconceptions. A parallel or hierarchical change within a major ontological category between subcategories is identified as a conceptual reorganization. In this case the basic meaning of the concept does not change, but the concept may be clarified, it may receive new information, it may change from one subcategory to another, some alternative features may become predominant, or the entire subcategory may be restructured. (Chi 208; Chi et al 1992; Chi et al 1994; Chi & Roscoe 2002; Reiner, Slotta, Chi & Resnick 2000.)

Discussion of the ontology of leadership in phenomenography is somewhat different, as the conceptions are not understood as independent mental entities and consequently the change is not described as a relocation of a mental representation into another cognitive category. In phenomenography, it seems meaningful to look at the nature of those elements that occupy the internal horizon and thus remain in the focus of awareness regarding the phenomenon, which is rather similar with the way the ontology of leadership would be described. Regarding the experience of the interviewee # 7, it can be said that position is an organizational or communal phenomenon, occupied by a person, and implying a hierarchical relationship between people. It is static, characterized by being or holding. Influence, from the influencer's perspective is active doing, an attempt to change another person in a predetermined way. Character, on the other hand, refers to personal moral qualities. Thus this type of change seems to be best described as an ontological change, since the nature of the elements that the student focuses on are different.

5.4.2 Increased Complexity through Introduction of New Elements

Interviewee # 5 exemplifies a type of change, in which leadership is experienced after the course as a more complex phenomenon because various new issues that have challenged the old experience are brought into the focus of awareness.

A. “Before I thought a leader is someone who can just come up with something and do it or command people to do it. Even when he does not have followers he can still be a leader. But I came to discover that even a leader without followers is not a good leader, he is not a leader.”

Q. “How would you define leadership?”

A. “I would define that a leader is a man of influence who does not only have influence but influences others to follow him.” (Interviewee # 11)

Before the course, leadership is experienced as a power to command while after the course it is thought of as influence. Both are acts, although qualitatively different types of acts. However, the experience of leadership has become more complex as a number of changes have taken place. The new conception includes an ethical dimension in the form of attractiveness of the leader (the use of word “good” in the excerpt above seems to be a mistake). The other people have moved to the focus of awareness from the surrounding thematic field. The nature of other people has changed from being an underling to being a follower. Finally, the primary focus of action has shifted from something the underlings should do into emphasizing the followers themselves. Thus the basic elements of leadership, i.e., the leader and action, maintain their place in the focus of awareness, but variation is opened up regarding other people and they are brought into the theme in the form of followers.

This type of change resembles what Chi (2008) calls a mental model transformation from accumulation of belief revisions. Mental model is either an internal representation of a concept or an inter-related system of concepts. It is thus a more complex construction than an individual conception. A mental model can be flawed, i.e., even though it is coherent, it is incorrect, since it contradicts the scientific model considered as the correct one. Due to its coherence, a person may use the flawed model to answer questions, make predictions, and provide explanations, even though

all of these are incorrect from the prevalent scientific perspective because the basic mental model is flawed.

This type of change is classified as conceptual change, because the experience of leadership itself has changed. More specifically, the critical elements that are being focused on simultaneously in the awareness' internal horizon have increased by number. Had the changes taken place only on issues located on the thematic field, it would have been better to locate this together with the "no conceptual change" group described at the beginning of this section.

5.4.3 Modification of the Constitutive Elements or their Relationships

In this type of change, a student opens up a variation in the followers' as well as in the leader's role and action.

"Saying the truth I thought myself I thought being a leader is just a kind of being a boss. And I could go with people and instruct them to do some things with command and wanted them to do exactly what I want them to do. But through studying leadership I have come to notice it is not being a boss but being a leader is just being a servant. First it is you who serves and then people will follow what you are doing. That is being a leader." (Interviewee # 13).

This particular student describes this type of change as a change from "boss" to "servant." The boss metaphor refers to a privileged hierarchical position accompanied with authoritative power over the subordinates. In contrast, the servanthood view differs from this in three ways. First, it sees leadership as a function in which the leader abandons his or her higher socio-hierarchical position, and thereby lowering him or her to the same level with the followers. Second, the primary activity is no longer giving orders, but persuasion and performing the same practical duties as the followers. Third, the end result is that by serving the leader provides an example to the followers, which influences them to follow the leader.

The difference to the previous category is that the essential elements in the focus of awareness remain the same, i.e., the leader, the followers, position, and action, but

these terms undergo a relatively strong process of modification. The leader and the leader's position or power is no longer in the focal point of awareness; instead, leadership is seen as a follower empowering action. Thus the followers and their abilities become more important, and the leader's task is to assist them. The loaded metaphoric language suggests that the leader's position goes through a certain change, although the new experience does not necessitate any change. The expressions "boss" and "servant" are socially loaded symbolic expressions. In relation to position, "servanthood" refers to a lower social position and thereby implying a lack of importance placed on the leadership position. Leadership becomes more indirect, as the action is not task-oriented commanding, but the people-oriented action of influencing people.

The types of changes in this category resemble Vosniadou's (2001) specific theory revision. This revision means changes in a person's beliefs or presuppositions or in the relations between concepts. It is considered that learning science is guided by a framework theory of the way a physical world functions. It seems that the changes in this category are not only about leadership in a limited sense, but also touch upon social relationships. In other words, they deal with the students' beliefs of how the leadership related social world is organized and should function. As indicated below in relation to the conception of leadership, despite of the differences between them, different experiences are still experiences of the same phenomenon and as such it is assumed that they are all related to each other in some way. The structural relationships are presented in the form typical to phenomenography (figure 20).

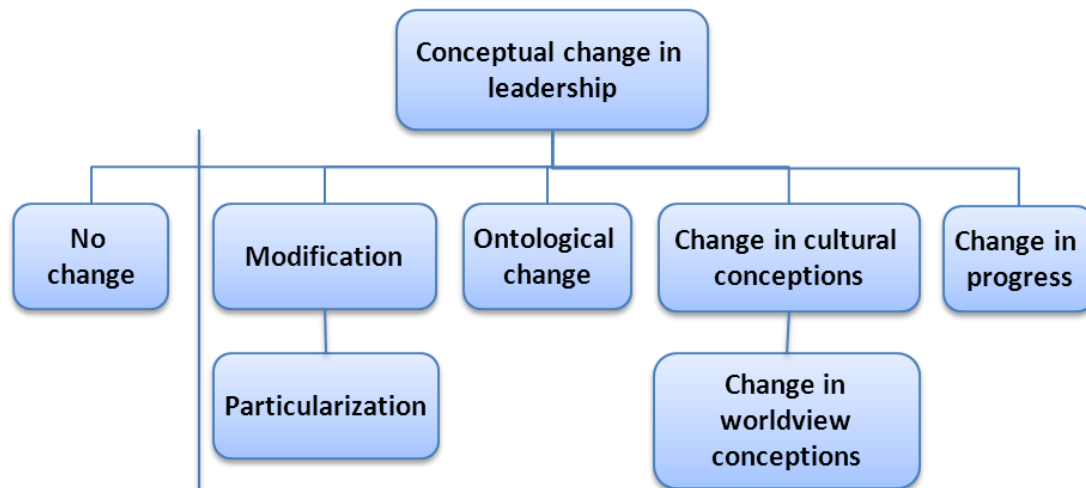


Figure 20. *Outcome space of types of conceptual changes*

5.5 Intentionality and Conceptual Change

This section presents the results regarding intentional dimensions of conceptual change studied in this research. Specifically, it provides answers to the third research question:

How do the students' goals and during-the-course self-regulation influence conceptual change?

The following presentation is in four parts. First, the concept map below summarizes the students' goals before the course. Second, the table below presents the students' outcome expectations and specific achievement goals for the course. The third part presents the self-regulative activities students performed during the course to control and monitor their learning and goal achievement. The fourth and final part presents the analysis of the observed linkages between goals, self-regulation, and conceptual change.

The presentation and analysis of the results utilizes Zimmerman's (2002, 67-69; see also Ruohotie 2002a, 172-174; Ruohotie 2003, 253-259) model of self-regulation (table 15). The model is cyclical and includes three chronologically progressing

phases of forethought, performance, and self-reflection. Each of these phases includes two major processes: task analysis and self-motivation, self-control and self-observation, and self-judgment and self-reaction, respectively. Each major process involves two or more methods through which the process is accomplished. In terms of goals, Zimmerman's (2002) model involves three specifically goal-related conceptions: goal orientation, goal setting, and outcome expectations. The specific explanation of how the three are understood in this research is included in the self-regulation figure below (figure 21). The following presentation of the students' self-regulation provides summaries of the students' beliefs and actions, with few excerpts from the interviews.

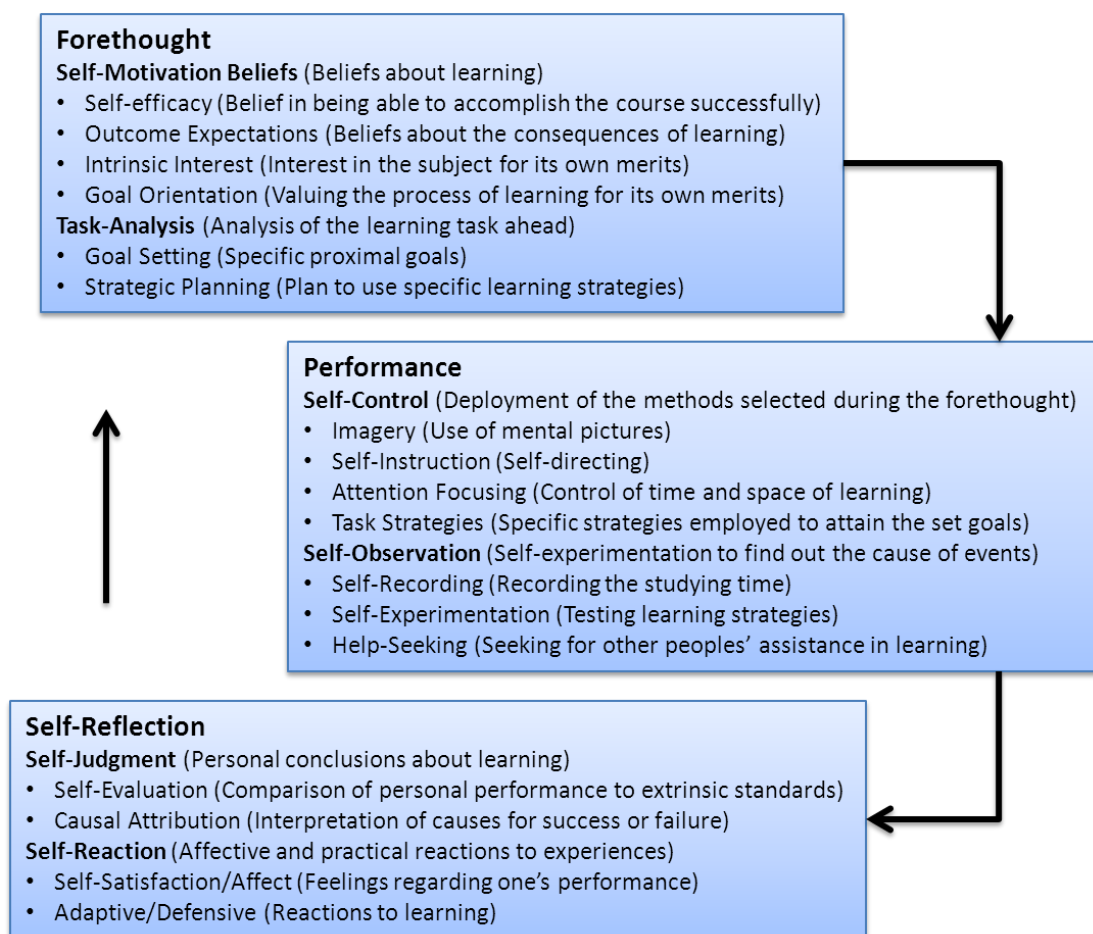


Figure 21. *The Cycle of Self-Regulation* (Zimmerman 2002, 64-68; Ruohotie 2003, 256-259)

Forethought, which guides the process of learning, forms the first part of self-regulation. Within forethought, the first major process, i.e., self-motivational beliefs, directs the other process, which is task analysis (Ruohotie 2003, 258). The following paragraphs explicate the students' self-motivational beliefs and methods for task analysis.

The level of the students' self-efficacy beliefs may be classified as being high. All the students expressed their belief that they will do well or very well in the course, the following excerpt providing an example of the statements:

“I think I will pass this course. Passing meaning that I will do very good in this course.”
(Interviewee # 3)

The reasons for this belief varied widely between the students. The following excerpts are two examples of the reasons followed by the summary of all of them.

“From since I came, let me say, I have never failed any course.” (Interviewee # 2)

“I think I do well, because there are some things I have read and have processed them and I have practiced them.” (Interviewee # 10)

In summary, the indicated reasons included a positive attitude toward the course, hard work, the practical utility value of the course, the students' existing subject specific knowledge, careful preparation for the course, the practical nature of the course, past success in other courses, intrinsic interest in the topic, the structure of the course, and the good quality of the teacher.

The following concept map (figure 22) presents a summary of the students' outcome expectations. Outcome expectations express the students' beliefs about the consequences of learning leadership. Specifically, outcome expectations provide the answer to the question, “Why am I taking this course?” The concepts presented in capital letters are quotes from the students' interviews. The overall construction, the arrows and their direction, as well as the labels given to the lines, are based on my analysis. Construction wise the map is hierarchical, in which the more general and

inclusive goals are on top, while the more specific goals are at the bottom (Novak & Gowin 1995, 20).

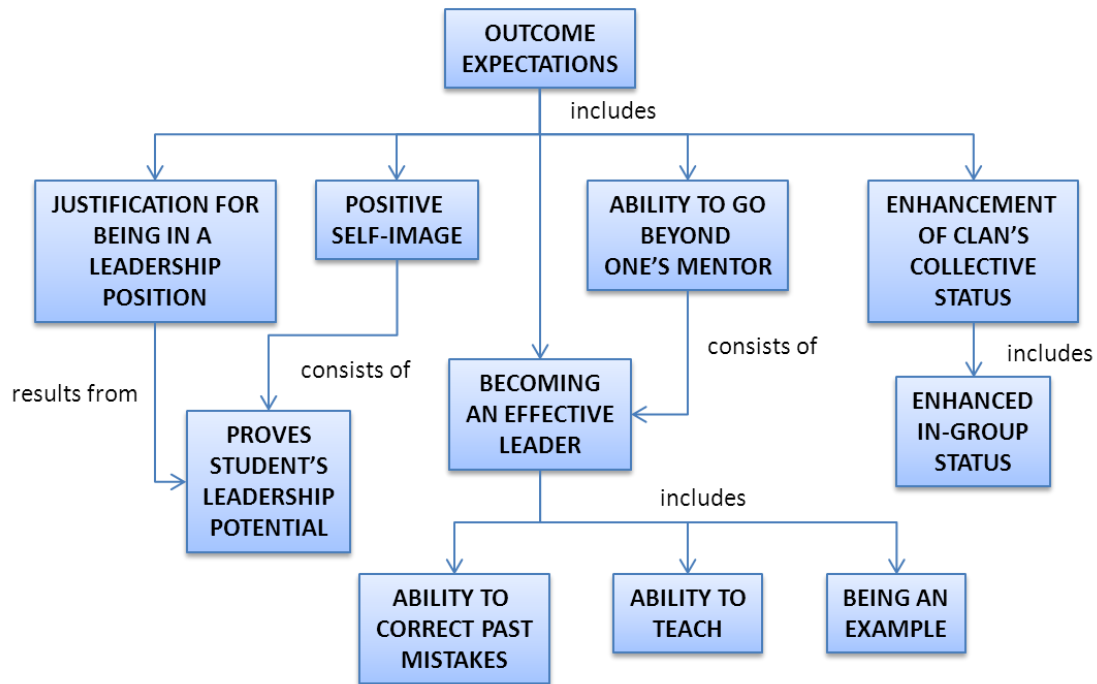


Figure 22. *The concept map of the students' outcome expectations*

As with goals, outcome expectations also divide into three separate categories: self, leadership ability, and status. The “self” category consists of those expectations that enhance the student’s self-worth as a leader. Leadership ability refers to the knowledge and skills that stem mainly from the mastery of goals. The last category refers to expectations that enhance the learner’s social status within his or her group and consequently also enhance the entire group’s status in relation to other groups.

The students’ interest in leadership in comparison to other topics may be described as rather low. Only one student named leadership among the topics of main personal interests and as the reason for personal belief in succeeding well in the course. Instead, the students expressed leadership having a strong utility value. Utility value refers to the perceived usefulness of the topic (Pintrich & McKeachie 2000, 35). This utility value is evident in the outcome expectations and goal concept maps.

The students' goal orientation was predominantly intrinsic. Students with intrinsic goal orientation attempt to master the topic instead of aiming at some extrinsic goals, such as good grades or the approval of others (Pintrich & McKeachie 2000, 33). Due to the strong utility value of the course, the distinction between intrinsic and extrinsic goal orientation is blurred. Mastering the subject, which is a clear example of an intrinsic goal, gets an extrinsic flavor through the outcome expectations as it holds a promise of later rewards and social approval.

Task analysis includes goal setting and strategic planning. Goal setting in this sense involves specific, proximal goals for the course (Zimmerman 2002, 68). The concept map below (figure 23) presents the summary of the students' goals before the course. Specifically it answers the question "What are my goals for this course"? The concept map follows the same principle and construction as the one above.

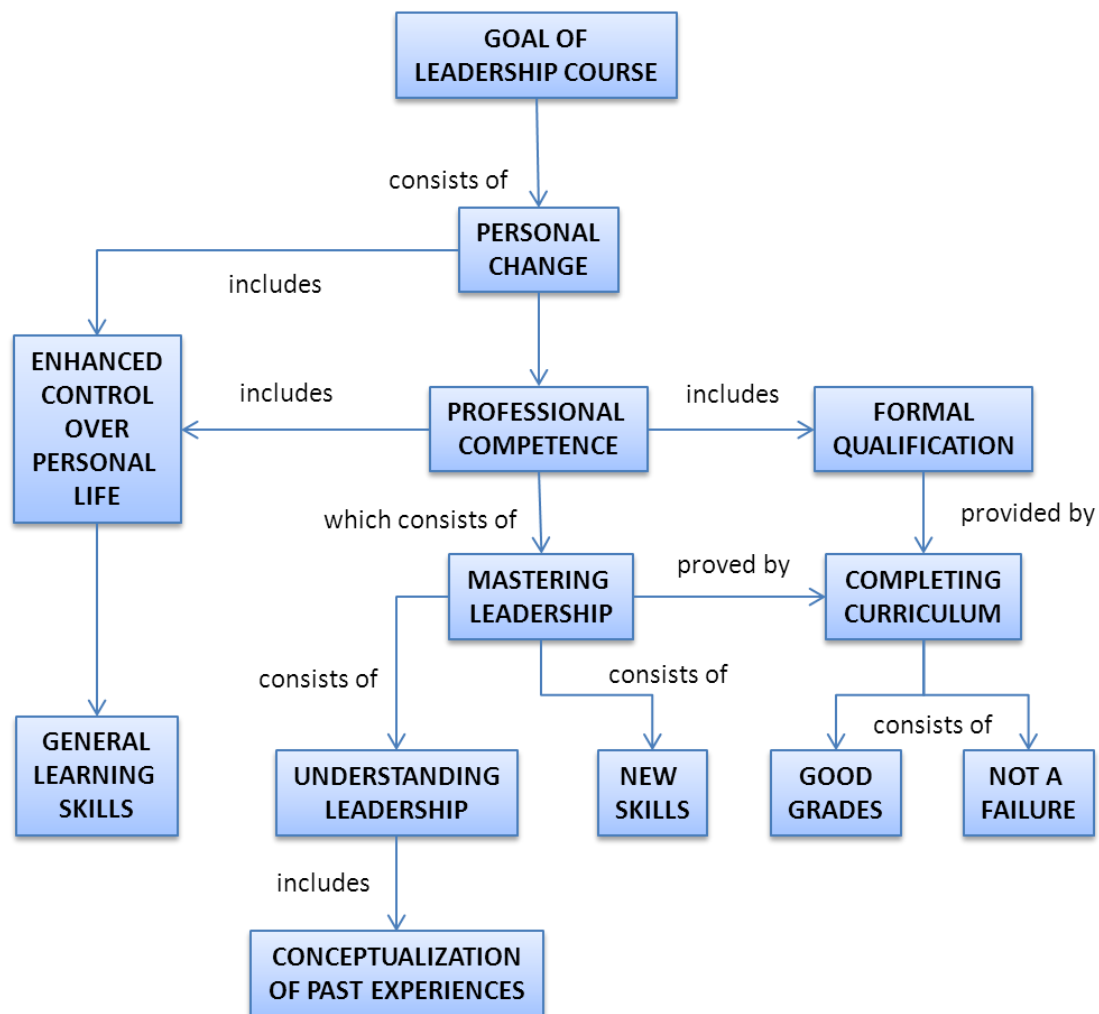


Figure 23. The concept map of goals set by the students before the course

On the top level is personal change. The other goals may be divided into three categories: general (enhanced control over personal life, general learning skills), learning of leadership (professional competence, mastering leadership, understanding leadership, conceptualization of past experiences, new skills), and formal (formal qualification, completing curriculum, good grades, and not being a failure). The last two categories indicate mastery and performance types of goals (Schunk, Pintrich & Meece 2008, 184).

In general, goals may be categorized into four classes, i.e., target goals, performance goals, mastery goals, and general goals, according to the discussion by Pintrich (2000, 92-94) and Schunk et al (2008, 174-190). In this classification, target goals represent the most specific category, since they refer to detailed goals for a specific task or problem. Performance goal orientation, including performance-avoid goals, represents the next level, since it refers to goals in which a student's focus lies on demonstrating ability and judgment of ability in relation to others. The next level, i.e., mastery goals, include, e.g., focus on understanding, skill and competence development, or mastering a task. The broadest level has to do with general goal orientation, which includes a wide variety of broad goals that guide human behaviour. This division is by no means clear-cut, but rather indicative. This is because to a certain extent goals form an undivided chain and some, e.g., understanding and mastery, apply simultaneously to specific learning tasks but also to more general goals.

The overall picture indicates that the students did not specify any target goals for the course. This was even to be expected, because of the nature of leadership conception. The most specific goals they indicated concerned the learning of a specific sub-topic of leadership such as:

“I want to learn what hinders someone to be a good leader.” (Interviewee # 14)

“My goal is to know how to adjust myself as a leader to specific circumstances.”
(Interviewee # 1)

This displays a clear emphasis on mastery goals and outcome expectations, as even the above excerpts are best considered as examples of mastery goals. The other similar specified mastery goals included familiarity with learning styles, leading in the right way, how to be effective, hindrances to being a good leader, servant leadership, what makes a good leader, and personal change. Some of the students set performance or performance-avoid goals for themselves. These goals were not common, as each of these goals included in the concept map above appeared only once in the interviews. They are also placed under mastery goals in the concept map, because in the students' expressions these do not appear independently. Rather they serve a secondary role proving that a student has learned leadership.

Although goals and outcome expectations are separate constructions and presented separately, they should not be considered in isolation from one another. First, the outcome expectations follow logically from the goals. Second, they are interrelated and also partially overlap in the students' expressions. The top category, personal change, serves as a hinge between the two constructions. It forms the most general and inclusive goal and as such the basic conception from which the outcome expectations stem from. Thus the goals and outcome expectations express the students' short and long term goals for the course, respectively.

The second process of task analysis is strategic planning, which involves the plan to use specific learning strategies (table 14). The students' preplanned learning strategies may be grouped into three chronological parts: actions before the course, actions during the class sessions, and actions after classes.

Table 14. *Summary of the Methods of Self-Control*

Self-Control Methods
Before the course <ul style="list-style-type: none">• Good sleep and healthy breakfast• Attitudinal preparation (Positive thinking about the course and the teacher)• Reading the course material
In the class <ul style="list-style-type: none">• Taking notes• Interaction with fellow students and the teacher
After class-time <ul style="list-style-type: none">• Reading other topic-related literature• Relating the content to a student's personal past experiences• Interaction with fellow students, the teacher, parents and friends• Internet• Critical reflection of the content and reading of the notes• Observation of leaders• Revision of the notes• Practical application of the content• Visualization (creating mental illustrations; verbalizing a thought and putting it in a form of a proverb)• Personal argumentation, presenting and answering questions

The next phase in self-regulation is performance, which is further divided into self-control and self-observation. Self-control involves the deployment of the strategies selected during the forethought. Only those strategies are presented here that were not included in the table 16 above, i.e., these are the strategies that the students employed during the course without pre-planning (table 15).

Table 15. *Non-planned self-controlling methods*

New Self-Controlling Actions
<ul style="list-style-type: none">• Reading strategies (use of dictionaries, consulting other books as explanatory devices)• Keeping a memory list of main things, quotes, etc.• Consulting leaders outside the college setting for verification and reflection• Controlling study place and time (finding a quiet place, timing of reading and use of internet, organizing life to support the studies)• Intensified focusing during the class-sessions

The table above contains only those self-controlling actions that deviated from those mentioned before the course by the students on the collective level. There was more development of self-control on the personal level, as some students utilized methods that they had not planned to use beforehand. All self-controlling actions are grouped together above, without distinction between different types of methods.

Self-observation is the second process of the performance phase referring to the observation of personal events and self-experimentation of the causes of these events in order to optimize performance. The students did not express any specific experimentation with learning methods, and most of the students did study the course as they had planned beforehand. However, some students did express during-the-course monitoring that resulted in the following performance strategies (table 16).

Table 16. *Ad hoc performance strategies*

Ad hoc Performance Strategies
<ul style="list-style-type: none"> • Using inspiring leadership texts as motivational readings • Self-testing personal understanding (personal mental argument) • Replacement of the textbooks by other books (for better understanding) • Seeking help from peers and the instructor

Self-reflection is the third cycle of self-regulation and as a whole refers to personal conclusions about learning. Regarding this research, the grading of the students' course assignments and the final exam had not taken place before the interviews. Consequently, the students were not able to evaluate their performance on such extrinsic standards as grades or comparing one's grade with those of others. Thus the students maintained their positive attitude regarding the expected success that they had already in the first interview. They attributed the reasons for the expected success to hard work, motivation to learn leadership, completion of all required exercises, and the changes they had experienced in their own persons, knowledge, and skills. In general, they were satisfied with themselves and their learning. However, a number of students expressed the above-described view that the in-class learning of leadership forms only the first part of learning the topic. It must be put into practice and practice

will serve as the final test of their learning, not grading of the assignments or the final exam.

Utilizing Ruohotie's (2003, 273-274) summary comparison of naïve and skilful learners in self-regulation, the participants of this research reflect mixed results. They may be classified collectively as skilful self-regulators in goal orientation, efficacy beliefs, and result expectations. On the other hand, they may be classified as naïve in goal setting and self-evaluation. In other categories the students display somewhat mixed results. For example, in spite of strong intrinsic interest in leadership, some attribute learning problems to external factors. Similarly, a number of students view trial and error as a valid learning strategy. Naturally, there are extensive personal differences between the students in all categories of self-regulation.

The analysis of students' expressions regarding their personal course goals, self-regulative beliefs and actions, and resulting intentional conceptual change, suggests the following relationships between the three. The excerpts from the students' interviews are presented in italics within the text due to their relative shortness.

The first category proposes that:

- 1. More radical conceptual change in leadership takes place with the students who have the deepest approach to learning and display at least some ability of self-regulation.**

The students who expressed personal change as their goal for the course and who expressed regulation of their learning during the course, experienced fundamental changes in their understanding of leadership.

The expressed goal of interviewee # 13 before the course was as follows: *“My goal in this course is just to get a change. A different picture of new (student's name), who was not there... now I want to change so that I will reach my goal of changing others.”* After the course the same student describes the change process *“... in which sense my worldview has been broadened...change was difficult because a belief is not broken easily... I have come to understand me through the people.”* The same student

also expressed the change in his understanding of leadership as a change from leadership as entity, *“I thought leadership is being a boss,”* to leadership as an influential process, *“I want to define it as influence.”*

Similarly, the same student also expressed processes of self-regulation, the following serving as examples. Efficacy belief: *“I believe I will do well;”* intrinsic interest: *“...it is important, I am a leader...a good leader is a leader who has sat down to learn;”* self-evaluation: *“...partly in class I had to argue...I had to go down, think, reason with myself, surely if I implement this and this, why not and then I began slowly by slowly, strategic planning I am one of the persons who can be distracted...so when it is quiet, that is the time I read, make notes, answer questions”* and *“I read before my teachers...I ask questions as much as I can, any question to me is right because it is driving to my understanding.”*

Personal change as the goal displays that the course is anticipated to have a deeper meaning than providing knowledge or new understanding. The goal grows out from the student's personal identification as a leader, existing already before the course. Thus the goal for personal change in this case implies a fundamental change related to how one understands leadership but also related to more fundamental conceptions, such as one's identity as a leader.

Having personal change as a goal is in line with Marton and Säljö's (2005, 55) distinction of surface and deep approaches to learning. Students with a surface approach aim at increasing their knowledge and memorization in order to utilize it later. Deep approach in turn is characterized by aiming at developing and transforming personal understanding with development as a person as the deepest level approach (Entwistle 2007, 129-130). Effective self-regulation and goals go together (Ruohotie 2003, 273). Intentional conceptual change is possible when a student has the ability to plan, monitor, evaluate his or her personal learning (ibid., 269).

The second category proposes that:

2. High utility value combined with focusing on outcome expectation may relate negatively to conceptual change in leadership.

The results suggest that students, who place a high utility value on the course and whose goal orientation is primarily in the future practice of the knowledge and skills they anticipated to learn, experience smaller conceptual changes compared to those whose goal orientation was more focused on the course.

As an example for this group, interviewee # 12 expressed the course having a high utility value. His reason for taking the course *“I am taking these courses because I know they apply to real life and I know I am going to find a problem that I need to apply these skills that I have learned...they are realistic”*. His expectations for the course *“my expectations that I be equipped as a leader to be effective in ministry...to be example to other people and not to repeat the many mistakes done by the leaders who are ahead of us”*. The student’s goals for the course were *“I want to learn how I can equip and train leaders...I want to acquire more knowledge on how I can lead people to make right decision.”* After the course the same student described the changes he had experienced *“I learned about many things... commitment...time management... and how to deal with different kinds of people”*.

The students in this category viewed themselves as leaders with some prior knowledge about leadership. For them, the course has high utility value as it relates directly to their professional ambitions. The high utility value and outcome expectations are the driving forces for learning. The course is anticipated to provide knowledge and skills that empower the students to work as leaders. Already before the course, the student’s focus is in the future application of the new knowledge and skills and in the other anticipated benefits. The pre-course goal setting reflects this orientation to outcome expectations. The student’s goals for the course may be classified as learning goals, i.e., the goals aim at new knowledge and insights in leadership. However, instead of setting goals that focus on leadership per se, the focus is on “how” goals, in other words, the student is not focusing only on learning, but also on leading and teaching. The course in itself is experienced as a secondary issue

between their prior position and knowledge in leadership and the future return to practice leadership. In summary, the motivation, goal-setting, and in-course evaluation of learning are oriented beyond the course, and this results in minimal intentional conceptual change.

The students' orientation to learning reflects Knowles' (1980) theory of adult learners as distinctive from children's learning. According to Knowles (ibid., 43-45), adult learners are more problem centered and oriented towards immediate application of knowledge. The relationship between goals and achievement reflect the achievement goal theory's assumption that achievement goals influence college achievement (Schunk et al 2008, 184-185). In this case this means that as the students' goal orientation is not towards conceptual understanding of leadership per se, conceptual learning is not the primary achievement.

The third category proposes that:

3. Commitment to a collective culture decreases self-regulation and in turn may impact conceptual change in leadership negatively.

The results suggest that the students who display commitment to the collective traditional culture, express little to no self-regulative actions and consequently less intentional conceptual change. In contrast, the students who have distanced themselves from the traditional collective culture show higher levels of self-regulation and thus seem to be in a better position to experience conceptual change.

The following two students serve as representatives. Interviewee # 18 first identifies himself tribally (the actual tribe is of no importance and is thus left unnamed). During the discussion on leadership, the student expresses the reason for his admiration of a certain leader by stating, "*He is good because he is in leadership right now.*" Later he declines to discuss the leader's weaknesses because "*I cannot say against my leader.*" Still later he comments regarding leadership: "*I know if I disobey my leaders, I will also disobey God.*" The expressions reflect the traditional understanding of leadership that does not allow any voiced criticism of leaders and that places leaders in a godlike position with unquestioned authority. The comments also display the student's

personal commitment to that traditional custom. In contrast, interviewee # 8, originally from the same tribe as interviewee # 18, distances himself from his own ethnic culture by stating, *“I am a Kenyan, not a (tribe’s name)...I am not a real (tribe’s name)... I am thinking as a Nairobiian.”* The student’s cultural self-identification breaks away from his ethnic group.

In general, it may be summarized that the level of self-regulation was relatively low especially among those students whose cultural self-description identified them as collectivists. They relied mainly on listening during the lectures, and mainly on taking notes, making questions and reading textbooks and other literature outside class sessions. In comparison, those who showed a more individualist approach to learning also displayed a wider range of self-regulative activities as described above in table 13.

Hofstede, Hofstede and Minkov (2010, 117–124) provide a summary of school related differences between individualist and collectivist cultures. They state that collectivist cultures are practically oriented cultures, which emphasize tradition. Learning is primarily a one-time process and diplomas are of special importance as they guarantee access to higher-status groups. Social acceptance is more important than individual respect, which comes from mastering the topic. Education is teacher-centered and it reflects a rather substantial power distance between the teacher and the students. Students avoid conflicts and direct confrontations with teacher, since the teacher is the authority figure in the situation.

The results indicate that those students whose cultural self-description identified them as comparatively more collectivist than others in the group showed the above-described characteristics. The outcome expectations described above show the importance of the diploma and social approval. The clear emphasis was on doing instead of on theoretical learning. The excerpts for these are not presented here in order to avoid unnecessary repetition, as they have been presented above. Learning in school was also experienced as one part of learning, followed by the practice. This group held a rather behavioristic view of learning with a strong identification and difference between the teacher as the one who knows and the students as the recipients: *“I always allow the teacher be the final authority.”* Confrontation with the

teacher was also experienced as improper. *“I do not want to question the lecturer in class, I wait for my time and see after the course whether the teaching is right or not.”* Instead of questioning the validity of the teaching, it was considered to be measured later by practice. *“Learning is one thing, doing is another. This (the college course) is only first part, but practice...”*

As stated in the cultural section, Kenyan culture as a whole is classified as collective, and the more traditional tribal cultures emphatically so. This collectiveness extends also to education. As Mbigi (2005, 144) states, African learning is collective and it aims to teach social roles, appreciation of other people, and interdependence. This collectiveness means that a student is not learning alone, and not only with the other students in a classroom, but also with others of the same culture.

The impact of a collective culture on the self has been notified. Regarding self-enhancement, Kurman's (2003, 496-510) study indicates that the restrictions placed by collective culture on the individual causes the difference in the level of self-enhancement in comparison to individualist cultures. Markus and Kitayama (1991, 229) note that persons from collective cultures, or persons with interdependent selves, are continually aware of the other persons and tend to concentrate on their goals and needs. As Markus and Kitayama (ibid., 233-235) further point out, the interdependent self imposes restrictions on cognition and also on non-social cognitive activities. However, the concept of self-regulation is only primarily, but not exclusively, an individual concept. Self-regulation refers to the individual's active participation in the learning process. Self-regulation is a cross-cultural conception because it is based on human characteristics and behaviours common to all cultures. (Ruohotie 2003, 251.) In addition, self-regulation theory recognizes the influence of the social and cultural contexts on the individual. Thus, collective culture is not considered to do away with the possibility of self-regulation.

The following figure aims to represent the process of conceptual change in leadership in a collective culture (figure 24). The process consists of two phases, cognitive and practical application. A student enters the process with an intuitive conception of leadership that is formed mainly by observation and practice. Receiving new information through instruction initiates the cognitive process that evaluates the

existing and new conceptions regarding leadership per se, the conceptions closely related to leadership, and personally held worldview level beliefs. This cognitive process may lead to the acceptance or rejection of new conceptions. However, for many, practical application phase follows this cognitive phase. During this phase the new conceptions are tested in practice before their acceptance or rejection. This phase is influenced by number of factors present in the particular context of testing.

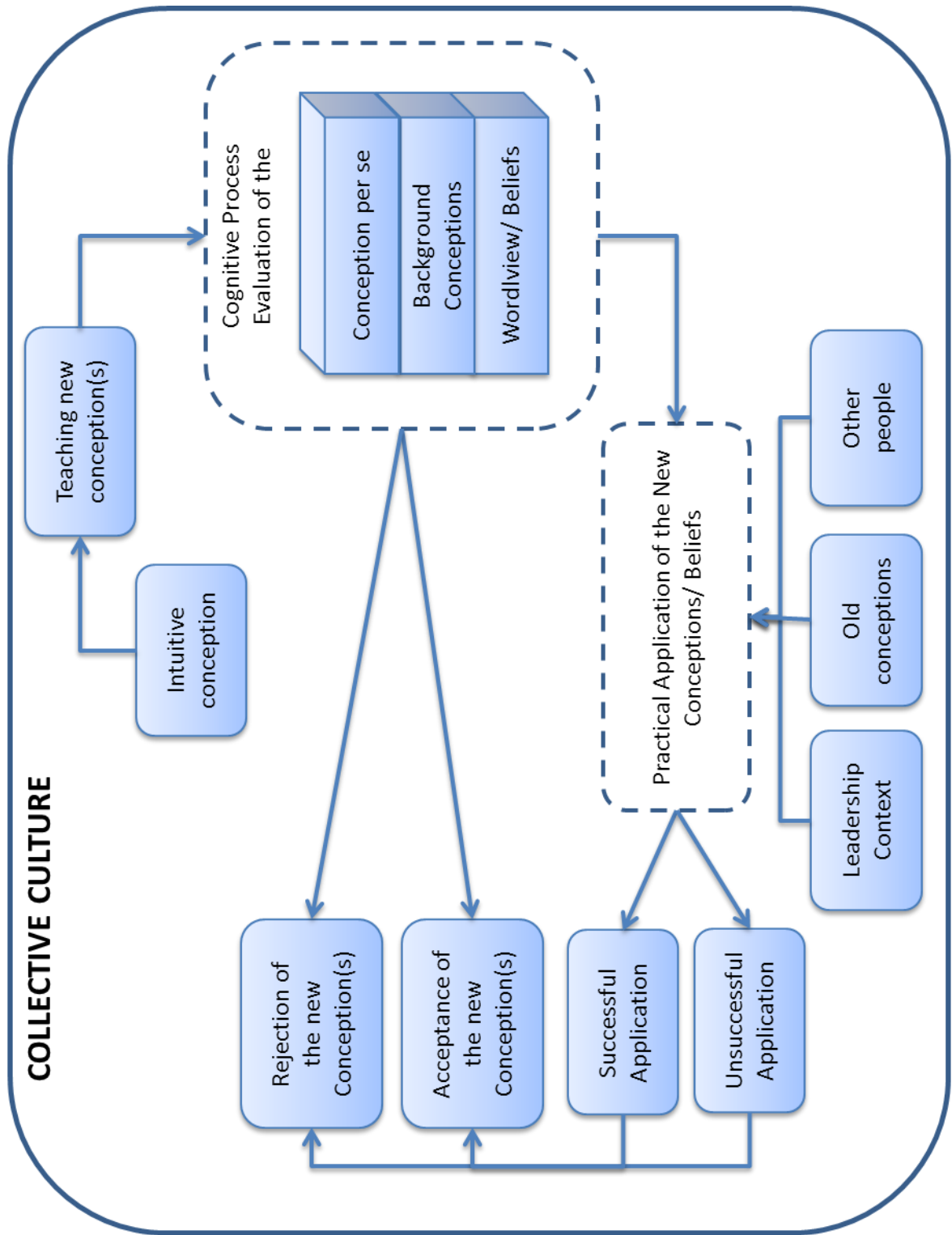


Figure 24. *The Process of Conceptual Change in a Collectivist Culture*

6 DISCUSSION

This monologue's topic was intentional conceptual change in leadership in the African cultural context. The specific research questions focused on ascertaining, firstly, how first-year college students' conceptions of leadership change during an introductory course on leadership; secondly, what is the appearance and relation of cultural beliefs to change; and thirdly, what are the effects of the students' goals on this change. The selected cultural setting offered a specific forum to observe the influence of culture on the process of change. The data was collected among college students in Kenya. The students represent several different ethnic tribes, all of them spoke English as their second or third language, and they come from different parts of the country. The culture of the participants in general may be summarized as representing relatively high scores in collectivism, power distance, and masculinity in Hofstede's (1993) terms. This discussion is based on this research set-up. The summary of the main results (table 17) is presented first followed by a more detailed discussion.

Table 17. *Summary of the main results*

Summary of the Main Results
Change of Leadership Conception: <ul style="list-style-type: none">• Leadership displays both similarities and dissimilarities with scientific conceptions• Practical usefulness is a strong factor• Conceptual change is possible in a short time• Conceptual change is essentially a process
Culture and Conceptual Change: <ul style="list-style-type: none">• Culture is very important, forming an active framework for the change• Culture and cultural beliefs are under change• Community has an important role in conceptual change in leadership• Worldview level conceptions are included in the process• Culture and cultural beliefs set limits to conceptual change• The conceived future influences the process of conceptual change
Self-Regulation and Goals in Relation to Conceptual Change: <ul style="list-style-type: none">• Importance of personal motivation• Collective culture correlates negatively with self-regulation• High utility value may misdirect the process of learning• Commitment to a collective culture may block conceptual change

As the interviewees of this research were students of a Christian theological college, a short consideration regarding the possibility of the influence of the participants' Christian background on the results is in place. As stated earlier, religious beliefs among other beliefs are part of person's worldview and as such may be considered to influence any conception a person holds or forms. On the other hand, leadership is not a particularly religious conception so the religious part of the students' culture was not expected to form a significant factor in the research. Some influence of the participants' Christian background to their conceptions of leadership is evident. The first category, leadership as a divine order, is explicitly religious in character. Considering the group of participants, it may also be considered to be explicitly Christian conception. Thus it may be reasonably assumed that this part of the results stems from participants' religious beliefs. Regarding the rest of the conceptions, the evidence is not decisive. Some of the conceptions, such as for example serving and egalitarianism, may reflect specific religious beliefs. On the other hand, these conceptions are common in traditional African understanding of leadership as well as in many leadership theories without any religious connotation.

As regards the process of conceptual change, no influence of the participants' religious background was detected. The interaction of students' religious views with the process of change has been recognized in various researches (see e.g. Abd-El-Khalick & Akerson 2004, 785-810). However, this interaction seems to take place when the conceptions to be learned are religious by nature or challenge person's religious beliefs in some way. Probably due to the nature of leadership conception, such controversies were not identified in this research.

6.1 Learning of Leadership as Conceptual Change

It is practically unfeasible to compare the results, i.e., the types of conceptual changes from this study, to other phenomenographic studies, since the number of phenomenographic researches on this topic is rather small (but see Wang 2007, 1-16). In addition, the reporting of the results in phenomenographic studies is rather research specific, as they are categorized on the basis of the content and not on the basis of the types of change (see e.g., Marton & Pang 2008). Consequently, as the conception under study changes so do the classifications of the types of conceptual changes. For these reasons, there is no comparison to other phenomenographic studies presented in this discussion.

From the perspective of a learning theory, it seems that the phenomenographic perspective of learning provides a fruitful approach to studying conceptual change in such sociological conceptions as leadership. Phenomenography's ontological and epistemological position allows it to concentrate on a person's experience, without reliance on any specific form of the cognitive structure of the mind. This moves the locus of change from a person's mind to his or her concrete experience. This in turn makes it easier to include the social context of learning and the learner's culture in a larger sense into the process, as the relation of experience to culture is more readily open to research than the cognitive structure of an individual.

In addition, the case and conception specific classification of changes, which appears to be natural to phenomenographic learning, seems useful. This resembles Thagaard's (1993) more detailed and inclusive classification of conceptual changes. A case and conception specific scrutiny of changes provides a way to study the specific characteristics of the process of change regarding the conceptions under research. Especially at this stage of conceptual change research, in which its social and cultural nature is a relatively new phenomenon, it seems favourable to conduct research that does not, by definition, limit the research to particular types of changes.

As a whole, the research indicates that the learning of leadership displays both similarities and dissimilarities with the learning of scientific conceptions. Consequently, the learning of leadership can be meaningfully studied from the conceptual change perspective, which is similar to other so-called ill-defined conceptions, even if conceptual change is understood in the more restricted sense of referring only to major cognitive changes.

First, as expected, students come into a learning situation with an intuitive conception of leadership that they have formed in everyday life situations. This intuitive knowledge is naturally personal and thus represents a variety of understandings, and functions in two ways; first, as a basis for new learning; second, as a potential hindrance for new learning, which is similar to how intuitive knowledge is supposed to function in the process of conceptual change in other domains. Consequently, this intuitive knowledge requires some kind of conceptual change, either a smaller scale modification or a more thorough change depending on the individual.

The second observed similarity is the robustness of the intuitive conceptions. It seems that this intuitive conception of leadership corresponds with Chi and Roscoe's (2002) misconceptions, i.e., they are not simple preconceptions that can be changed easily by instructional confrontation, but rather true misconceptions that require conceptual change. Chi and Roscoe (ibid.) differentiate between the two so that misconceptions cannot be corrected with direct refutation on the propositional level, but require a lengthened period of instruction. In other words, misconceptions

are robust (Chi & Roscoe 2002, 6.) The results of this research, especially the type of conceptual change that is in progress even after the end of the course, indicate that the change is not easily achieved. Although the students do not have any tangible reasons to resist the change, they want personal empirical verification for the betterness of the new conceptions before abandoning the old conceptions. According to Chi and Roscoe (*ibid.*), this robustness in general stems from three sources: first, the conceptions are embedded in a complex, theory-like web of conceptions; second, the students' are sometimes unfamiliar with the appropriate scientific conceptions and phenomena; and third, lack of motivation. The robustness of leadership has both similarities and differences to conceptions in other domains.

On the basis of the results, it seems that leadership conceptions are comprised of a complex cluster of experiences that form a somewhat coherent theme of awareness, or in constructivist terms, a theory-like construction with a certain level of coherence, similar to the scientific conceptions. It should be noted that the difference between cognitive and phenomenographic research traditions presents conceptual and correlational challenges as the former is interested in the structure of the mind and memory, while the latter excludes these from its interests and concentrates on the structure of awareness. However, awareness seems to offer a meaningful meeting point for the two traditions so that the findings of both can be discussed together. In leadership research, implicit leadership theory (ILT) draws attention to leadership's cognitive nature. Eden and Leviatan (1975) were among the first to suggest the existence of ILT's that view leadership as a result of personal information processing; leadership resides in the minds of the followers rather than in the leader's traits or situational factors. According to ILT, people are considered to have preconceptions of leadership in the form of schemas consisting of hierarchically organized categories represented by prototypes that function in the same way as other cognitive schemas (Fiske & Taylor 1984). The prototypes and ILT's are formed in social interactions and events and experiences with leaders in a process in which a person's values and personality influence the specific content of the person's ILT (Lord and Emrich 2001). Somewhat similar to ILT is Hogg's (2001) social identity theory of leadership, which also includes the idea of cognitive preconceptions and prototypes in its view of social categorization (for a short summary of ILT, see House & Aditya 1997, 437-439).

Further, the students' preconceptions of leadership appear to consist of an experience-based, complex network of several interrelated culturally conditioned sub-conceptions, including, but not limited to, the leader's traits and abilities, the followers, the relationships between these two, power, and position. All of these conceptions are in themselves multidimensional, consisting of a number of activities, attitudes, and self-perceptions. In addition, one's conception of leadership is directly affected by one's worldview and other culturally related conceptions such as time that increase the complexity of the theme of awareness. In summary, intuitive leadership conception is a complex structure. In order to change one's leadership conception, changes may be required in conceptions that are closely linked to leadership, such as social relationships, culture, worldview, power, and so on.

This complexity has an additional feature in the form of the social context present in the change process. As discussed below, the students experienced culture as a factor, which may interrupt the process of change or question its validity. Research in general indicates cultural differences in the understanding of leadership (see summary in Shaw 1990, 634-642). Thus potentially a change in the learner's conceptualization of leadership leads to cultural incompatibility. As long as the difference remains on the conceptual level, there might not be remarkable challenges. However, the learners of leadership are usually also the ones that practice it in the society. As the students are forced to practice leadership within their culture, the particular leadership actions must be suitable to the cultural situation in order to achieve the purposed result, even if the primary aim is to influence a change. Because leadership is about influencing people, it seems that a leader has to approach a leading situation from the followers' perspective. If the learned theoretical principles as well as the practical applications do not produce the desired result, the pressure for achieving organizational or personal goals may cause the leader to reconsider the real nature of leadership.

Regarding unfamiliarity with proper scientific conceptions, the learning of leadership seems to differ to a certain extent from the learning of science. In science learning, difficulties appear because the conceptions of proper scientific explanation

are unknown or the explanation goes against the persons' empirical observations and explanations. In leadership, difficulties might appear because of the opposite reason, i.e., due to the familiarity of the phenomenon. Prior to the learning, the learners have experienced leadership in different forms, and therefore are to a certain degree familiar with some of the proper conceptions, and their personal empirical knowledge has proven itself in the practical cultural context. As a result, the students seem to approach learning of leadership as a relatively uncomplicated phenomenon. Although they indicated that their knowledge is limited, their descriptions in the first interview indicate that they are at least somewhat confident in their knowledge of leadership.

The sense of familiarity and intuitive trust in their knowledge potentially strengthens the preconceptions making learning more challenging. The need for change may be considered small compared to science learning where the conceptions to be learned are often completely new. In a leadership context, which is relatively authoritarian, such as the present research, the observed flaws of one's existing knowledge might be minimal, as the enjoyed authority might have covered the insufficiency of conceptual knowledge in practical situations. It might also cause them to concentrate on learning particular practical and somewhat secondary methods and techniques instead of striving to gain a profound conceptual understanding of leadership in its complexity. Naturally, the degree of difficulty for learning presented by this familiarity or unfamiliarity is linked to the nature of the particular misconception.

Practical usefulness seems to be a stronger factor than the complexity of the conception and the extensiveness of the required changes and cross-cultural challenges. In the learning situation, the teaching the students received was cross-cultural to a certain extent. The results did not show any difficulties presented by this. The non-indigenous leadership theories and principles, and the use of a textbook authored by a non-African, did not seem to present any challenges to the students. The culturally foreign origin of the teaching was notified, but leadership was considered to be an acultural phenomenon. Thus the theories and principles were considered acceptable, only their particular application in the students' cultural context would need further consideration. A similar situation prevailed regarding the

extensiveness of the required changes. In order to change their conception of leadership, some students had to change their cultural view of time, while some others had to change a part of their worldview and a number of other leadership related conceptions. This shows that the students were ready for rather extensive changes within a short period of time without any indication of hesitation or doubt that these changes were too extensive or demanding.

The results seem to confirm that a fundamental intentional conceptual change is possible in a formal instructional setting within a relatively short timeframe. Within phenomenographic understanding, this means that the students' theme of awareness is radically changed. In other words, their focus on experiencing leadership changes in some totally new ways, as new themes in their awareness replace the old ones. This does not mean that the old ways of experience disappear; they still remain a possibility. Thus the students' capacity for experience is increased.

Although the rapid change seems to be against the common understanding of how rapidly conceptual change takes place, it should be noted that many factors in the set-up of this research contributed positively to the changes. In light of the results, the students' age, their high learning motivation, the high utility value of the content of the course, and their lack of prior formal learning of leadership are among these factors. First, it seems natural to assume that a student, who is highly motivated and who has a positive attitude toward learning, is mentally ready for a change. Second, a student, who lacks prior formal leadership education and realizes his or her need to learn, seems to be an ideal candidate for conceptual change. Third, a student, whose future success in work depends partially on successful completion of the course, is likely to work hard for the change. These factors, accompanied with at least a moderate level of metacognitive skills, seem to make conceptual change likely.

On the other hand, in case of many students, the process of change was still in progress. This does not mean necessarily that these students had not experienced any change before the end of the course, but that the process as a whole was still continuing. All together, the results suggest that the process of conceptual change should not be thought as either slow or rapid, but that the speed of change depends on various personal and situational factors.

In summary, the learning of leadership seems to face similar difficulties with the learning of science conceptions. The students come to a learning situation with intuitive knowledge that in some cases show robustness for similar reasons as learning science, but in other cases differs from it.

The above-described results have an effect on the teaching of conceptual change in leadership. First, more emphasis should be placed on leadership's scientific research so that the current preparadigmatic situation could be corrected. This should lead to a situation in which the conception of leadership per se, i.e., the "sub-conceptions" it is considered to consist of and their particular roles and relationships are clearly recognized so that leadership is not too simplistically identified with any single particular dimension, style, or element of leadership. As a sociological conception, it is bound to be more complex than some of the existing theories imply. This enables the educators to present leadership to the students in its full complexity, which in turn provides the students with the needed variation against which they are able to reflect on their existing knowledge in order to produce conceptual change.

Conceptual change in leadership differs from a number of domains in that there is no predominant scientific theory or paradigm of leadership. This means that in any learning situation, the one presented during the instruction takes the place of a scientific theory. In this respect leadership learning resembles learning of historical conceptions (Hallden 1996). This lack of a commonly accepted scientific theory means that more scientific research is needed so that this situation could be corrected. As long as this preparadigmatic situation continues, there is a danger that leadership is understood to be essentially unscientific as its foundation for theoretical development is missing.

6.2 Culture and Conceptual Change

This research displays the importance of culture in the process of conceptual change in leadership. This was to be expected, because leadership as a sociological

phenomenon is bound to be in multidimensional reciprocal relationship of influence with culture. As in learning in general, conceptual change of leadership always takes place in a culture and thus the students come into a particular learning situation as culturally conditioned persons, i.e., their a priori conceptions are culturally colored, their past and future practice of leadership take place in a particular culture, and the learning situation itself is culturally conditioned, just to mention a few of the ways in which culture(s) interacts with conceptual change in learning.

The traditional model considered conceptual change primarily as a rational and individual process ignoring culture to a large extent, a view that has received its fair share of critique. Pintrich, Marx and Boyle (1993) were among the ones to criticize this seemingly overly rational view and emphasized the influence of motivational beliefs and contextual factors on the process. The later models presented display this increased complexity of the change. Ferrari and Elik (2003, 40) identify the role of culture in conceptual change and locate it as a mediator in the process of change. Cultural background assumptions are thus part of the overall framework within which a change takes place. Dole and Sinatra (1998) in turn recognize the influence of the cultural background in relation to a person's commitment to a certain conception. The results of this research indicate that a student's culture is closely present in conceptual change in leadership.

The traditional requirements for conceptual change to happen are rather rational and individual. The results of this study suggest a rather strong role played by the collective surrounding of the learner, especially after the course. Thus it should be considered whether, at least with regard to leadership type conceptions, the requirements for conceptual change should be more collective. In a collectivist culture, the change is not solely within the power of the individual learner and thus the role and importance of the collective culture should be recognized.

The results further indicate that worldview level concepts are present in the students' experiencing leadership. The basic conceptions of reality and life provide the framework within which a student formulates his or her understanding of leadership. This indicates that in teaching and learning leadership, conceptions of various levels are involved. The involvement of worldview presents a possibility of

collision of worldviews, i.e., that of the teacher, or the material to be learned, and that of the student. This may be an ethical problem. The consideration of valid knowledge varies between cultures and science itself is a subculture of Western culture (Aikenhead 1997, 219-222). At the very least, this suggests that both worldviews need to be made visible because of ethical reasons but also because the students need to be aware of variation and new ways of experiencing leadership.

The involvement of worldview also suggests that the nature and value of intuitive knowledge of leadership must be considered carefully. It should not be handled straightforwardly as something that must be changed, as this would mean an imposition of specific cultural views on people from other cultures. Aikenhead and Jegede (1999, 269-287) point this out regarding the learning of physics, and the same applies to leadership in which the truth of leadership may be even more relativistic by nature. This means also that the means and ways of instruction must be adjusted in such a way that the differing worldviews are taken into account (Akatugba & Wallace 1999, 305-320).

In general, it appears that a student's cultural beliefs should not be viewed as a passive framework, within which conceptual change takes place, but rather as an active framework, which exists in a reciprocal relationship with the process and which is open to change itself. As the results show, among the students of this research, some cultural beliefs had to change in order to make a change in leadership conception possible.

This seems to concur with Marton and Booth's (1997) description of the structure of awareness, which contains everything that a person is aware of, although he or she is not aware of everything in the same way at any given time. A person is aware of his or her cultural beliefs, although they may not be considered as a part of the conception under learning. These cultural beliefs that are not in the focus of awareness and as such do not belong to the internal horizon of a particular conception, are in any case influential in relation to that conception. Naturally they have an indirect influence on a person's conceptualization at the general level, but they may also determine the acceptance or rejection of a new conception. A student may reject a new conception presented in instruction if it goes against his or her

cultural beliefs, even though the student may not be conscious of the reason for this rejection. The essential issue is that in order for a kind of conceptual change sought after to take place these cultural conceptions should be brought into the focus of awareness during the instruction. Thus concentrating narrowly on a particular conception under instruction is not enough, but rather the potential influence of a student's larger cultural context and beliefs must be considered and handled appropriately. The results of this research suggest that in a cross-cultural learning situation, there should be some kind of mapping of related conceptions in order to bring these to the students' active awareness. When they are focused on and a conceptual change in them has taken place, the desired type of a change in the other conception becomes more likely.

The results also show that culture is subject to change. Culture itself is not a static phenomenon, but a continually developing and changing entity. In this research, the students seemed to be able and willing to change their cultural views in light of the instruction. They displayed an awareness of different kinds of conceptions of time, and most probably they had considered the different conceptions already before the research. Thus the issue was not new, and this might increase the positive attitude toward the change. This is in line with Hofstede's (2003) argumentation that a culture as a learned phenomenon refers to probable and understandable actions and conceptions, in which the cultural programming of an individual is not determinative. The material of the course was based rather heavily on common international leadership literature. It seems that the instruction crossed the cultural framework and at least some of the students were forced to rethink some of the fundamental presuppositions of their own culture.

Cultural beliefs determine the new conception and thus set limits to conceptual change. Hence, in the results, some students indicated that their view of authority had remained the same throughout the course, even though their conception of it was undergoing a process of change. The interviews in general indicate that authority was one of the prominent features of the students' conception of leadership, seemingly reflecting the general African cultural view. This seems to indicate that the cultural belief of a leader's authority remained intact.

As stated above, Ferrari and Elik (2003) consider the cultural framework as a mediator in the process of change. This is to be expected, as learning takes place in a specific culture and is supposed to influence the entire process. On the other hand, the relationship between culture and leadership seems to be somewhat complex. House et al's (2004) research refers to an interesting observed discrepancy between cultural values and practices. The research shows that the current cultural leadership practices do not match with the individually preferred practices.

According to the results, future socio-cultural context of a particular student's practical leadership experience is involved in the process of change. This means that the conceptual change process extends beyond the immediate learning context. The student measures the correctness of the new conception in light of personal practical success instead of in the light of the view and arguments presented by the instructor. This brings into the foreground the wider socio-cultural context and the process kind nature of conceptual change.

Cultural beliefs may also present a potential danger to conceptual change in a number of ways. It seems reasonable to assume that people expect the students to lead in a culturally appropriate way. Thus the students may find it difficult to apply their new conceptions, as these would mean new types of practices as well. This might lead to a situation where a new conception never gets enough room and finally fades away. On the other hand, if the students attempt to use their new conceptions and practices appropriate to them, they might not attain success and if functional success was one's ultimate criterion in the issue, a particular student might decide against the new conceptions and revert back to the old ones. Students may also be tempted to give in to the old ways of thinking because of the size of the risk. In the other peoples' minds, leadership is tied to position and authority and a student ceasing to lead as the people think a leader should act runs the risk of thereby losing his or her position and authority in the society.

Therefore, in Africa, school is not viewed as the final authority on these kinds of practical issues. As Africans believe education is for life and for the community, college education has to match real life, in which its final value is measured. Thus

the student does not go from school to change the world, but the school has to accommodate the world's beliefs.

Conceptual change research in general largely recognizes the socio-cultural nature of conceptual change. However, the discussion of the socio-cultural context is usually limited to the influence and collaboration of the teacher, peers, and the immediate physical environment (see e.g. Miyake 2008; Hatano & Inagaki 2003; Dole & Sinatra 1998), while the larger socio-cultural context is quite often left out. The reason for this is that usually a distinction is made between instruction-based and spontaneous conceptual change, the former taking place at school and requiring radical and intentional learning and the latter taking place in the common culture through gradual development of knowledge (Vosniadou 2007b).

The results of this research suggest that a sharp separation of instruction-based and spontaneous conceptual change might not be always necessary or even appropriate. Regarding such conceptions as leadership, in which learning in its entirety involves both social contexts, a model that includes both contexts within the process would be better. Naturally, in this case learning is taken in a wider sense than pure cognitive comprehension or mastery. However, the practical application of the new conception is often regarded as one of the requirements for conceptual change to take place, so the theory of learning remains the same. It should also be noted that control of the change remains with the student, regardless of the involvement of the wider socio-cultural context. The practical application does not make conceptual change dependent on other people or circumstances. The student could choose other ways to test a conception's correctness, and, in a case of mismatch, conclude that the followers need to change their conception.

It is commonly recognized that conceptual change is essentially a process and the results also support this perspective. The traditional view presented it more as a one-time change in which the new conception replaces the old one with the effect that the old one ceases to exist. As mentioned earlier, the current research holds that the old conception may actually continue to exist alongside the new one. This seems probable especially from the phenomenographic view, in which the change means an ability to experience something in a new way. It would be difficult to argue that

the new ability would cause the old way to disappear, at least not immediately. However, there is a difference between the causes for this process type nature of change. In science learning, the reason for the change being a longer process is the difficulty of learning, because the new conceptions require such an extensive change in the student's conceptions. In this research, the reason is not so much in the difficult nature of the new conception, but in its verification.

Naturally, the open-endedness of the change process increases the possibility that there will be no change at the end. As the people among whom the student practices leadership most probably holds on to a view of leadership that is closer to the student's old intuitive conception, the new conception may prove unsuitable and may consequently be rejected. This possibility is further enhanced by a lack of instructional contacts that would support the change.

6.3 Goals, Self-Regulation and Conceptual Change

Regarding intentionality, the results suggest importance of personal motivation that grows out from the practical relevance of leadership. The students, who have personal change as their goal, are more likely to experience it than others. When leadership is experienced as personally meaningful in personal identification and consequently also in practical life, the motivation to accommodate the instruction increases. As Aikenhead (1997, 227) argues regarding science education, it does not normally improve a person's understanding of his or her everyday life. Due to the nonscientific factors present in the problems of everyday life, scientific knowledge is at times inapplicable in practice. But, as Aikenhead and Jegede (1999, 279) point out, the students change their understanding if the new conception makes sense to them.

This emphasis on usefulness reflects the view of the traditional theory that in order for conceptual change to take place, the new conception must show promise of fruitfulness. Although the classic theory has been challenged in many ways, the use of the new conception by the learner after instruction has maintained its position as

one criterion for the occurrence of conceptual change. Usefulness seems to be even more crucial in leadership than some other scientific conceptions, although the principles remain the same. Regarding many scientific conceptions, their use is primarily personal and mental, whereas with leadership the application has social and practical dimensions as well. Thus conceptual change in leadership has, at least potentially, organizational and communal importance.

Again, it seems that those holding on to a collective culture express less self-regulation than others. The collective culture emphasizes the teacher's role and authority in learning, and defines learning as reception of knowledge and thus directs the students to rely on external guidance in their learning. This does not mean that self-regulation would be a purely individual concept and foreign to people from collectivist cultures, but it does suggest that the methods of self-regulation might need more consideration in collective cultures.

A similar question arises regarding the idea of conceptual change in general. Conceptual change is typically based on a constructivist theory of learning. It does recognize the social nature of learning, but the result is considered to be an individual conception. The individualism is expectable because social or collective knowledge assumes knowing individuals (Audi 2003, 264-267). However, it needs to be asked whether a more collective understanding of conceptual change is needed, because in a collective culture, the group carries primary importance and thus influences the individual's knowledge formation and possibilities to experience conceptual change.

Although utility value has been found correlating positively with conceptual change (see e.g. Johnson & Sinatra 2013), the results suggest that the high utility value may also block conceptual change. The high utility value may cause the student to be so practically oriented that a thorough conceptual level consideration of leadership falls into a secondary role. Instead, the student is already preparing him or herself for practicing leadership. This may consequently leave the student's conceptual understanding weak. In this kind of case, conceptual learning may be more ostensible than real in a sense that a new idea is readily but superficially accepted without critical reflection and incorporation of it to the person's larger conceptual

framework. This challenge is linked with the leadership conception's practical character and to the student's separation of theoretical and practical learning from each other. This suggests that it is important to set specific learning goals, which can enhance the student's focus on the academic task.

The results also suggest that a student committed to collective culture may not be able to break out from that culture in order to experience conceptual change. The student's personal goal setting and self-regulation may be on such a low level due to the cultural understanding of proper learning and learningship that conceptual change becomes too challenging. Personal goal setting and performing self-regulative actions towards achieving those goals is deemed too individualistic and counter-cultural. Regarding leadership, the peculiar situation is that it is precisely the traditional conception of leadership that prevents the student from experiencing it in a different way. Considering a conception of leadership that is against the prevalent cultural understanding may be considered as an inappropriate and disrespectful challenge of the current leadership. This suggests, among other things, that a successful conceptual change challenges a wide network of concepts and requires at least moderate self-regulation skills as well as a culturally applicable model of learning as conceptual change.

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Appendix I

Description of the course

College: East African School of Theology, Nairobi, Kenya.

Course: EAA2373-1 Introduction to Leadership: Spiritual Leadership

The course was an introductory course on leadership. It covered the basics of leadership including such issues as definition, nature, and meaning of leadership, leadership styles, leader's character, time management, and practical leadership techniques.

Course Director and Lecturer: Rev. Moses Wangila

Textbook: Sanders, J. O. 1989. Spiritual Leadership
Teacher's notes
Collection of articles

Methods of learning:

Lectures: Weekly lectures, 40 hours in total

Exercises:

Leader interview

Compilation of a Leadership Training Manual for a series of lessons in a local church

Appendix II

This appendix includes the opening question of each section and examples of the further questions presented to the students in the two interviews. These questions were followed by prompt questions whose precise form depended on the answer.

First Interview:

Personal questions: The opening question: “What is your whole name?”

Examples of the further questions: “Where do you come from?”, “Are you single or married?”, “What kind of family you come from?” etc.

Cultural questions: The opening questions: “What is your tribe?” and “How would you define culture?”

Examples of further questions: “What does your tribal culture mean to you?”, “How important your tribal culture is to you?”, “Does your culture influence your learning?” etc.

Leadership related questions: The opening question: “Name a Kenyan leader whom you admire”

Examples of further questions: “How do you define leadership?”, “How would you define successful leadership?”, “Describe a personal leadership experience”, etc.

Learning related questions: The opening question: “How would you define learning?”

Examples of further questions: “How do you prefer to learn?”, “What are your main areas of interest?”, “Why are you studying this diploma/leadership?” etc.

Second Interview:

Leadership related questions: The opening question: “How has your understanding of leadership changed during the course?”

Examples of further questions: “How would you define leadership now?”, “Describe the changes that have taken place” etc.

Learning related questions: The opening question: “How did you study this course?”

Examples of further questions: “How did you alter your learning habits during the course?”, “Did you reach your goals?”, “How did you solve the difficulties you faced during the course?” etc.