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To cite this article: Ville Mankki, Marita Mäkinen & Pekka Räihä (2019): Teacher educators' predictability and student selection paradigms in entrance examinations for the Finnish Primary School Teacher Education programme, European Journal of Teacher Education, DOI: [10.1080/02619768.2019.1672653](https://doi.org/10.1080/02619768.2019.1672653)

To link to this article: <https://doi.org/10.1080/02619768.2019.1672653>



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Published online: 22 Oct 2019.



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Teacher educators' predictability and student selection paradigms in entrance examinations for the Finnish Primary School Teacher Education programme

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ABSTRACT

This article investigates the perceived and actual predictability of teacher educators working as assessors in entrance examinations for the Finnish Primary School Teacher Education (PSTE) programme. The section examining perceived predictability was conducted as a survey. The data for actual predictability, containing student teachers' entrance examination scores and student achievements, was collected from the student register. The findings indicate that although teacher educators consider themselves able to predict applicants' performance in the PSTE programme, their actual predictability in entrance examinations was poor. The assessments predicted only slightly student teachers' study pace in the PSTE programme, while better scores in entrance examinations predicted, in fact, weaker grades in studies. Teacher educators also conform to hidden quotas based on Finnish student selection paradigms in awarding better entrance examination scores to male and older applicants. The findings highlight teacher educators' need for more structured professional learning in a gatekeeping context.

ARTICLE HISTORY

Received 18 January 2018

Accepted 4 August 2019

KEYWORDS

Teacher educators; student selection; entrance examinations; Primary School Teacher Education

Introduction

Teacher training selections are of great importance for bringing those applicants who are the most suitable for the teaching profession into teacher education programmes. While many countries struggle with finding ways to attract young people to apply for teacher training (OECD 2015), in Finland professions in the field of education have for a long time been highly competitive. Finland's high-quality master's level teachers and research-based teacher education have been credited for its phenomenal PISA success in 2004 (OECD 2004) and scoring among the top countries in mathematics, reading and science (OECD 2016) and collaborative problem solving (OECD 2017a) ever since. Teachers are trusted and respected and the status of the teaching profession has remained very high over the years (Tirri 2014).

Even financial shortcomings, such as smaller salaries compared to average teachers' wages in OECD and EU countries and to similarly educated workers in Finland (OECD

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2018), have not decreased the popularity of teacher education. In fact, entering teacher education has become even more difficult. For example, in Finnish Primary School Teacher Education (PSTE) programmes, only 10–11 percent of applicants have been admitted since 2011, compared with 15 percent in 2008 (Finnish National Agency for Education 2017). Many of those not selected repeatedly apply for teacher training, year after year (Uusiautti and Määttä 2013). The difficulty of being chosen for this desired degree programme makes the teacher's profession look elusive but also creates pressure on the selection procedure.

In Finland, the PSTE programme aims to meet this selection challenge through a two-stage selection process. The first, preliminary stage of the selection is a national multiple-choice exam based on academic articles. The goal of the exam is to assess applicants' academic study skills, pedagogical thinking and ability to apply knowledge of educational sciences. The most successful in this examination are selected for the next stage.

The second stage is an aptitude test, which is based on teacher educators' face-to-face assessments of applicants, most commonly in interviews and group assignments. The aptitude test has been considered one of the core features of the Finnish PSTE programme and essential in assessing communication, interpersonal and leadership skills, attitude, and aspirational commitment to the teaching profession. Universities that offer PSTE programmes use a variety of other complementary selection criteria that take into account earlier learning outcomes, such as performance in the matriculation exam. Nevertheless, teacher educators can be considered gatekeepers for teacher education, deciding who is suitable for the profession (Goodwin and Oyler 2008).

Although teacher educators are the core of teacher education by designing, implementing and evaluating teacher education programmes (see Goodwin and Kosnik 2013; Hadar and Brody 2017; Murray 2017), previous studies have failed to address their performance as gatekeepers. Instead, research on student selection has been mainly restricted to comparisons between student teachers' characteristics (e.g. prior academic achievements and personality traits) and performance in teacher training (e.g. Corcoran and O'Flaherty 2018; Heinz 2013) or teaching skills and effectiveness as an in-service teacher (e.g. D'Agostino and Powers 2009; Klassen and Tze 2014).

In this article, we focus on teacher educators' performance as gatekeepers in entrance examinations. We examine teacher educators' ability to predict student teachers' success in the PSTE programme from two perspectives – perceived and actual predictability. Understandably, when the student selection process is of high quality, the student selection is compatible with the programme and admitted student teachers will be successful in their studies to become a teacher. We also examine how current – and seemingly immutable – student selection paradigms in Finland concerning gender balance and age structure of student teachers affect teacher educators' assessments. In this study, then, we address the following research questions:

- How do teacher educators perceive their predictability in entrance examinations?
- How do teacher educators actually manage to predict applicants' performance in the PSTE programme?
- How do the age and gender of the applicant affect teacher educators' assessments?

By investigating teacher educators' predictability and deviation with regard to selection paradigms, we support their professional development as gatekeepers. The assessments of

prospective teachers, whether fulfilled in entrance examinations or during the teacher education programme (e.g. Hobson et al. 2010), should be carried out with a high regard for quality since they are only real hurdle to entering the teaching profession.

Teacher educators as gatekeepers

Research has indicated that the most important factor in learning is the teacher, and there is a strong relationship between students' achievements and the quality of their teachers (e.g. Hamre et al. 2013; Hattie 2009).

Nevertheless, research on the significance of those who teach prospective teachers – teacher educators – has been scarcer (Goodwin and Kosnik 2013; Loughran 2011), albeit the research about their quality and preparation is increasing (Brody and Hadar 2018). Still, however, even the definition of teacher educator may be unclear and differ from country to country, due to the various structures of teacher education systems (Murray 2017). In Finland, the definition of teacher educator conforms to the description of Lunenberg, Dengerink, and Korthagen (2014), where teacher educators are contextually defined as higher education faculty (and training school) staff members, who teach student teachers with the aim of supporting their professional development.

In their review study Lunenberg, Dengerink, and Korthagen (2014) identified six professional roles for the teacher educator to fulfil: 1) teacher of teachers, 2) researcher, 3) coach, 4) curriculum developer, 5) broker and 6) gatekeeper. It is obvious that teacher educators cannot fulfil all roles simultaneously (Kelchtermans, Smith, and Vanderlinde 2018). The first two roles have been ranked as the most important ones for the teacher educator's profession, especially from the perspective of professional development (Lunenberg, Dengerink, and Korthagen 2014). Teacher educators, as *Teachers of Teachers*, are expected to offer education to future teachers in the second-order setting of higher education (Murray and Male 2005) and promote teaching and learning exemplifying the best professional practices (Loughran 2011). However, knowledge cannot be limited to understanding through practice when teaching about teaching (Loughran 2011; Murray and Male 2005). Therefore, teacher educators are also expected to fulfil the role of *Researcher*: to achieve professional learning and to generate new knowledge for themselves and others (Hadar and Brody 2017).

In Finland, emphasis is placed on teacher educators' sixth role, the *Gatekeeper*. In gatekeeping, teacher educators make decisions concerning access to the teaching profession (Goodwin and Oyler 2008). Teacher educators in Finnish PSTE programmes fulfil this significant role every June in entrance examinations, where a large proportion (40–100 percent) of applicants' total scores are based on teacher educators' assessments. The share of points given by teacher educators differs among the Finnish PSTE programmes due to decentralised teacher education and the large autonomy of the programmes (Rasmussen and Bayer 2014).

Successful gatekeeping, as in other roles in the teacher educator's profession, requires lifelong professional development and learning (e.g. Goodwin and Kosnik 2013; Meeus, Cools, and Placklé 2018). Hadar and Brody (2017) divide the teacher educator's professional learning into 'self-guided track' and 'structured track'. However, when considering teacher educators' essential role as gatekeepers in Finnish PSTE programmes, the structured professional learning track, i.e. courses, workshops and seminars, is limited. The PSTE programme provides one or two optional discussion sessions for teacher

educators dealing with student selection and assessment in entrance examinations. Consequently, the gatekeeping is executed without any in-depth structured preparation. This confirms previous reports of teacher educators' lack of mentoring, support or systematically organised professional learning (Lunenberg, Dengerink, and Korthagen 2014; Murray and Male 2005). Studying one Finnish PSTE programme with qualitative methods, Valli and Johnson (2007) noticed, however, that despite the slight structured preparation, teacher educators are confident about succeeding in the gatekeeper's role in entrance examinations.

Student selection paradigms in Finnish PSTE

The student selection debate in Finnish teacher education has been dominated particularly by two paradigms: gender balance and the age of the admitted applicants. The former selection paradigm is more closely connected to PSTE, while the latter applies to Finnish student selection generally.

That women are the majority in the education sector is a common feature in OECD countries. At all levels of education combined, on average more than two-thirds of teachers are women across OECD countries. The highest proportions of female teachers are concentrated in the earlier years of schooling. The proportion shrinks at each successive level of education: while women on average represent 97% of the teaching staff in pre-primary education across OECD countries, at the tertiary level the gender profile of teachers is reversed, when the average drops to 43% (OECD 2018).

In recent years the proportions of female teachers have further increased in OECD countries as well as in Finland (Finnish National Agency for Education 2017; OECD 2018). The proportions of female teachers at different education levels in OECD countries, EU countries and Finland are presented in Figure 1.

Although gender differences are reported to be low in the factors influencing the choice of teaching as a career (Azman 2013), there have been efforts to explain why only few men

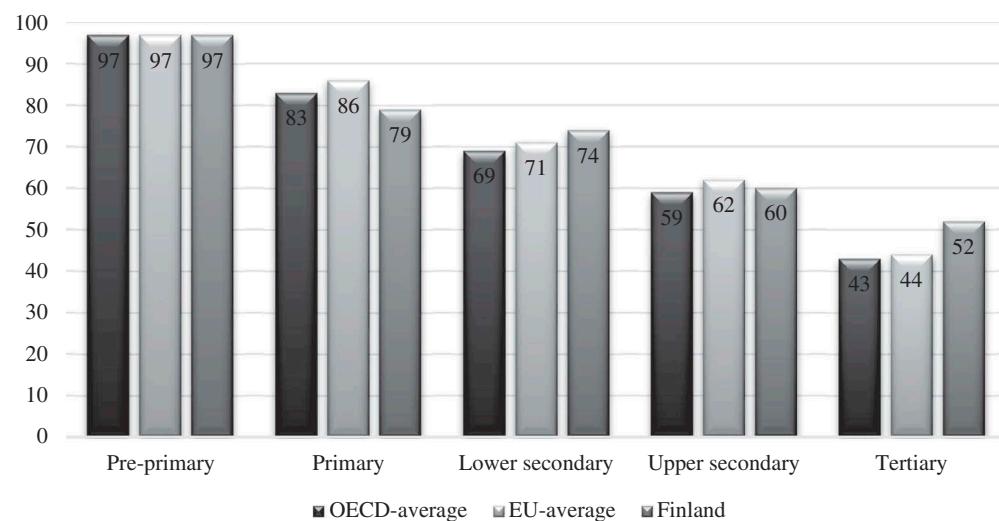


Figure 1. Proportion of female teachers at different education levels.

choose the teaching profession, especially at lower levels of education. Social perceptions of links between gender and the teaching profession are influential in men's career choices (Bieri Buschor et al. 2014). Especially parents seem to be powerful role models (Flores and Niklasson 2014) and their aspirations indirectly affect their children's career choices (Croft et al. 2014). From the economic point of view, male teachers, especially at lower levels of education, earn less compared to their tertiary-educated counterparts in other professions (OECD 2018).

A growing body of research indicates that men perform worse compared to women in both teacher training and the teaching profession. Male student teachers score lower in mathematics, assessment, planning and student engagement during the training (Stewart, Coombs, and Burston 2016) and show fewer intrinsic (Struyven, Jacobs, and Dochy 2013) or child-centred motives (Heinz 2015) than their female counterparts. In the profession, male teachers, especially at lower levels of education, report lower job satisfaction and often feeling less prepared (Sanatullova-Allison 2010). Also in Finland, male primary school teachers had lower self-efficacy and job satisfaction levels compared to their female colleagues (OECD 2014).

In the Finnish PSTE programme, attempts have been made to solve the biased gender balance of the teaching profession over the years using different student selection procedures. Until 1989 gender quotas guaranteed men 40 percent of places in the second stage of selection. The quota was abandoned following the report of the Equality Ombudsman stating that the law on equality prohibits quotas in student selection. When, due to the quota, 40 percent of students admitted to teacher training programmes were men, notwithstanding that only a quarter of applicants were men, it was clear that men could gain admission with lower scores than women.

After abandoning the quota, the share of men admitted decreased to just over 20 percent (Uusiautti and Määttä 2013) and it has remained at a similar level to the present day (Finnish National Agency for Education 2017) despite the minor pre-selective grading solutions favouring male applicants. For example, in 1994 completed military service provided pre-selection points, while supervising leisure activities, proven to favour female applicants, was removed from the grading criteria.

In addition to gender balance, there has been a general rejuvenation effort in Finnish higher education. The mean age of Finnish HE students is high (28 years), which is largely due to the slow transition to HE: 27 percent enter HE with a delay of more than two years after leaving school for the first time. Only in Iceland and Sweden is the mean age of students and proportion of delayed enterers higher (Eurostudent 2018). This led the Finnish Government to state in its action plan that 'young people's transition to further education will be facilitated' (Prime Minister's Office 2017, 39).

Rejuvenation aims led to creating a quota for applicants that have not accepted a degree programme place in HE before 2016. Between 2017 and 2020, Finnish universities have also committed themselves to abolishing entrance examinations and increasing the weight of earlier learning outcomes in selection, such as performance in the matriculation exam. The aim of these procedures is especially to improve the position of freshly matriculated upper secondary students, of which only 25 percent were admitted to HE in 2017, despite 73 percent of them applying (OSF 2018).

In PSTE, rejuvenation efforts began over a decade ago, when the national selection co-operation network launched a unified national entrance examination in the field of education. The multiple-choice exam replaced the earlier preliminary system, which was

considered to discriminate against newly matriculated applicants. In the earlier system, applicants for the second stage of selection were chosen based on points accumulated from the matriculation examination, but also from working as a school assistant or as an unqualified teacher or from studying educational science at open universities.

Although the purpose of the national preliminary entrance exam was to improve the chances of newly matriculated applicants, the reform has not proved to be successful. On the contrary, the proportion of new upper secondary school graduates admitted to PSTE programmes has decreased from 20 percent to 15 percent in a decade (Finnish National Agency for Education 2017).

Methodology

The study encompassed two datasets. Data on teacher educators' perceived predictability consisted of online survey. Teacher educators' actual predictability and the effect of the selection paradigms were studied using student register data. All data analyses were executed using SPSS 24.

Teacher educators' perceived predictability

Participants

Seven out of the nine PSTE programmes in Finland participated in the study. In June 2017 the total number of entrance examination assessors in those PSTE programmes was 199, of which 92 (46.2 percent) teacher educators participated in the study. Augmenting the number of participants by carrying out the study in multiple universities enabled statistical analysis to examine differences in perceived predictability between teacher educators.

Data collection

The study was conducted as a survey. A two-round pilot survey with ten-member and five-member groups of educational specialists with selection experience preceded the actual study. In the questionnaire teacher educators used a five-point Likert-scale to describe their ability to predict applicants' performance in the teacher education programme (1 *very weakly* – 5 *very well*). To examine differences among the groups, information on background factors, such as gender, year of birth, university, position and experience as a teacher educator and experience as an entrance examination assessor, was requested. Prior to analysis, the continuous numerical variables (i.e. age and experience variables) were recoded into four groups.

Data analysis

Descriptive statistics are used to describe the basic features of the data. The differences in perceived predictability were analysed with non-parametric tests. A Mann-Whitney *U* test was carried out to analyse the differences in perceived predictability between male and female teacher educators. A Kruskal-Wallis test was performed to examine differences in perceived predictability between groups based on teacher educators' age, university, position or experience.

Teacher educators' actual predictability and selection paradigms

Participants

The data consisted of all student teachers admitted into the PSTE programme in one of the universities in 2008–2014 ($n = 479$). The results of this study can be applied to other PSTE programmes as well since teacher educators' preparation for entrance examinations is arranged fairly convergently across PSTE programmes, i.e. one or two optional discussion sessions for teacher educators dealing with student selection. In addition, the generalisability of the study is increased by the fact that the entrance examinations in a particular PSTE programme consisted of the most common aptitude test methods in the Finnish PSTE programme, i.e. interview and group assignment.

Data collection

The data was collected from the student register. The data contained information on the student teachers' entrance examination score given by teacher educators, average study grade, grade of the master's thesis, completed credits, semesters as an active student and information on graduation. Teaching skills are not graded in the teaching practice component of the Finnish PSTE programme. Prior to analysis, the entrance examination scores, consisting of scores from the interview and group assignment, were scaled to 50 points, which was the most commonly used maximum score in the period under consideration. In addition, the age of the applicant was recoded into four groups.

Data analysis

The data was analysed using regression analysis. Linear regression analysis was carried out to analyse teacher educators' ability to predict applicants' average study grade and study pace. Multinomial logistic regression analysis was performed to examine teacher educators' ability to predict the grade of applicants' master's thesis. Binary logistic regression analysis was conducted to investigate teacher educators' ability to predict applicants' graduation within the normative duration.

The effect of student selection paradigms was analysed with parametric tests. An independent-samples t-test was carried out to analyse the differences in entrance examination score between male and female applicants. A one-way ANOVA was performed to examine score differences between applicants' age groups.

Findings

Teacher educators' perceived predictability

Teacher educators' perceived ability to predict applicants' performance in the PSTE programme was good. Eighty percent of teacher educators considered that they can predict an applicant's performance in teacher education *quite* or *very well*. Only one participant felt able to predict applicants' performance *quite weakly*. None of the teacher educators considered themselves able to predict applicants' performance *very weakly*.

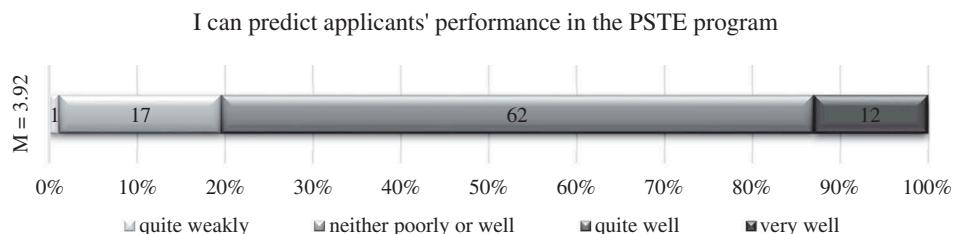


Figure 2. Teacher educators' perceptions of their predictability in the entrance exam.

The mean of perceived predictability on a scale of 1–5 was 3.92 ($SD = .58$). The teacher educators' perceived predictability is shown in Figure 2.

Male teacher educators ($n = 35$) felt themselves more able to predict the applicants' performance in the PSTE programme than female teacher educators ($n = 57$) ($p < .05$). As many as 94 percent ($M = 4.09$, $SD = .56$) of men believed that they can predict applicants' performance in the programme *quite* or *very well*, while only 72 percent ($M = 3.82$, $SD = .60$) of women found themselves able to predict applicants' performance *quite* or *very well*. Other background factors did not produce statistically significant differences between groups ($p > .05$).

The effect of the student selection paradigms

The mean of the admitted applicants' scaled entrance examination scores was 43.72 ($SD = 4.39$) and the range was between 30 and 50. Of the admitted applicants, 101 (21.1 per cent) were men and 378 (78.9 per cent) were women. The entrance examination scores of admitted men ($M = 45.90$, $SD = 3.67$) were statistically significantly higher ($F = 5.05$, $p < .001$) than those of admitted women ($M = 43.13$, $SD = 4.38$). When reviewing admitted applicants who have gained maximum points, favouring men is particularly evident. Up to 26.7 percent of admitted men achieved the maximum score, compared with only 10 percent of admitted women.

The mean age of admitted applicants was 23.26 ($SD = 5.19$) years and the range was between 18–45 years. The entrance examination scores differed statistically significantly between age groups ($F = 6.26$, $p < .001$). The two youngest groups of admitted applicants, 18–19-year-olds ($p < .05$), and 20–21-year-olds ($p < .001$), achieved lower scores in the entrance examination than the 22–29-year-olds. The group of at least 30-year-olds did not differ statistically significantly from other groups ($p > .05$). The effect of applicants' age and gender on the examination score is shown in Figure 3.

Teacher educators' actual predictability

Teacher educators' actual ability to predict applicants' performance in the PSTE programme was analysed by four factors, which indicate performance in studies. Teacher educators' assessments (entrance examination scores) were compared to student teachers' 1) average study grade, 2) grade of their master's thesis, 3) study pace and 4) graduation within normative duration. Applicants who were admitted but did not accept the degree place in the programme ($n = 15$) were removed from following analyses.

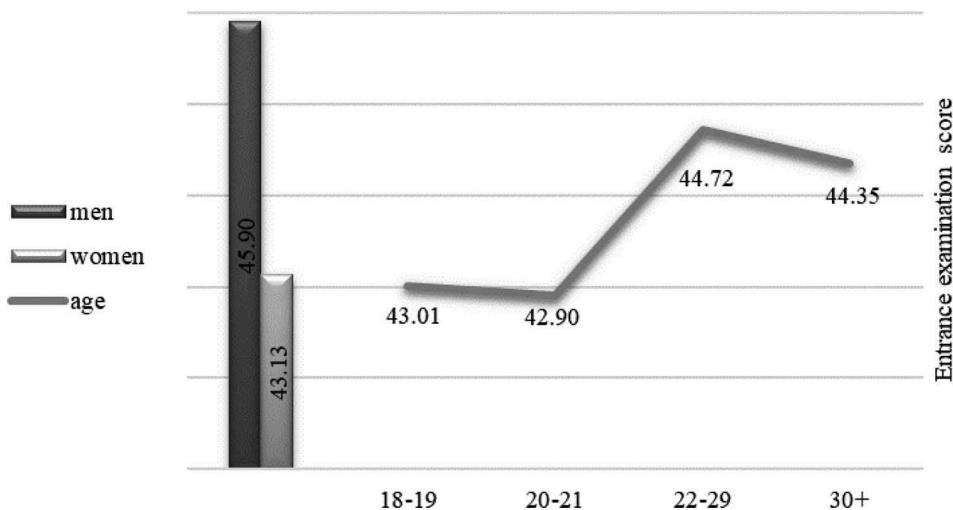


Figure 3. Effect of applicants' gender and age on entrance examination points given by teacher educators.

Teacher educators' ability to predict the grade average

Student teachers with a grade average of zero ($n = 9$) were removed from the analysis. They had not completed any courses or had only completed a few credits from ungraded courses. On the 1–5 scale, the grade average of the admitted student teachers completing graded courses ($n = 455$) was 3.63 ($SD = .37$). The grade averages ranged from 2.40 to 4.70.

The entrance examination scores given by teacher educators predicted grade average ($\beta = -.17, p < .001$). However, the coefficient of determination was low ($R^2_a = .03$), hence the entrance examination score only explained approximately 3 percent of grade variation. Nevertheless, it is crucial to notice the negative standardised β : better entrance examination scores predicted, in fact, weaker performance in PSTE studies.

Teacher educators' ability to predict the master's thesis grade

Altogether 246 (51.4 percent) student teachers admitted to the PSTE programme in 2008–2014 had completed their master's thesis. The thesis grade average was 3.30 ($SD = .78$), with grades ranging across the whole scale from 1 to 5. Entrance examination scores did not predict the grade of the master's thesis ($\chi^2 = 2.66, p > .05$).

Teacher educators' ability to predict the study pace

Study pace refers to the number of completed credits divided by the number of active semesters, i.e. when it is possible to obtain credits. Student teachers completed on average 25.63 ($SD = 8.31$) credits per active semester, with study pace ranging between 0–52.60 credits per semester.

Entrance examination scores predict study pace statistically significantly ($\beta = .12, p < .05$). However, the coefficient of determination was low ($R^2_a = .01$), hence the entrance examination score only explains one percent of the variation in study pace.

Teacher educators' ability to predict graduation within normative duration

The PSTE programme in Finland is a master's level education programme. The normative duration of a master's degree is five academic years (10 semesters) when a bachelor's degree is included (Universities Act 558/2009 40 §). Student teachers admitted into the programme in 2013–2014 ($n = 169$) were removed from the analysis because the normative duration of their degree programme had not expired. In addition, student teachers ($n = 9$) who still had the possibility to graduate within normative duration (an unfinished degree, but 10 or fewer active semesters) were removed from the analysis. Of the 286 student teachers remaining in the analysis, 158 (55.2 percent) had graduated within normative duration. Entrance examination scores given by teacher educators did not predict graduation within normative duration ($p > .05$).

Overall, teacher educators' assessments in entrance examinations only slightly predicted study pace in the PSTE programme. In addition, teacher educators were able to predict student teachers' grade average. However, the predictability did not produce the desired outcomes: better entrance examination scores predicted, in fact, weaker study success. Teacher educators were not able to predict graduation within normative duration or the master's thesis grade. The findings are summarised in Figure 4.

Discussion

In this article, we have examined teacher educators' performance as gatekeepers, which is one of the six roles for teacher educators to fulfil (see Goodwin and Oyler 2008; Lunenberg, Denkerink, and Korthagen 2014). Although teacher educators working as assessors in Finnish PSTE entrance examinations feel themselves capable of predicting applicants' performance in teacher training, their actual ability to predict applicants' performance in the programme was poor. The findings revealed two hidden, tacit quotas implemented by teacher educators in entrance examinations. By fulfilling the first hidden quota, which appears in the form of awarding better entrance examination scores to older applicants, teacher educators go against national plans for student rejuvenation in HE (see Prime Minister's Office 2017). Favouring older applicants may derive from requirements of the teaching profession; older and more experienced

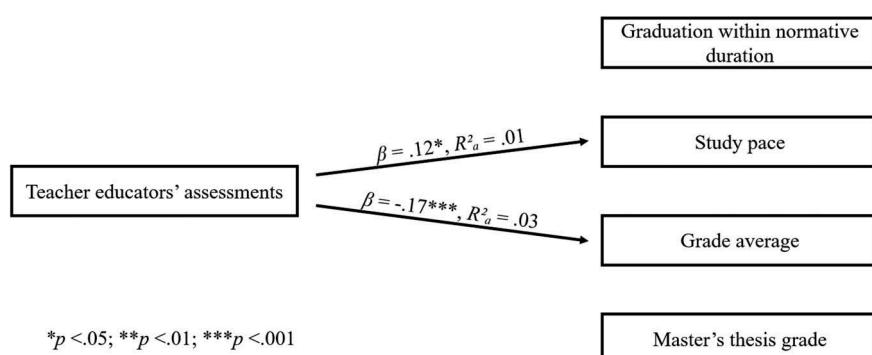


Figure 4. Teacher educators' predictability in entrance examinations.

applicants might be more able to give the appearance of an in-service teacher than younger and less experienced applicants and to be more convincing in managing this demanding, yet significant profession.

The second hidden quota is the obvious feature of inequality in the Finnish PSTE programme. Even though gender quotas were prohibited in student selections in 1989, based on equality laws, the hidden quotas still flourish in entrance examinations, when teacher educators award better scores to male applicants. The phenomenon is more common in higher education: students have also been reported as rating male academics higher than female academics (MacNell, Driscoll, and Hunt 2015).

The reasons for the hidden gender quota can be sought from two perspectives. Because of the low proportion of male student teachers (Finnish National Agency for Education 2017) and teachers, especially in lower levels of education (OECD 2018), the urge to have men in the PSTE programmes is unquestionably strong. This knowledge may consciously or unconsciously mislead teacher educators in their assessments. On the other hand, awarding better points to male applicants may not be intentional: a low proportion of males may result in their standing out from the group in entrance examinations and then gaining higher scores in teacher educators' assessments. Nevertheless, when considering the lower performance of men compared to women in teacher training (Stewart, Coombs, and Burston 2016) as well as in the profession (Sanatullova-Allison 2010; OECD 2014), the hidden male quota becomes exceedingly unjustified.

The findings highlight the need for a more structured learning track for teacher educators. Although self-guided professional learning has become the most common path for teacher educators' development (Hadar and Brody 2017), their unsatisfactory performance in gatekeeping, contrary to their own beliefs, shows that the self-guided track is not sufficient to provide professional competence for the student selection.

Currently, the absence of genuine compatibility between student selection and the PSTE programme is highlighted by the fact that the entrance examinations have no or very slight predictability for student teachers' performance in PSTE programmes. In addition, when the gender or age of the applicant becomes a clincher in student selection, it indicates a lack of a more relevant theory about teacher qualities guiding the assessments. These deficiencies are a major stumbling block and call into question the credibility of Finnish research-based teacher education: it appears that Finnish PSTE is only high-quality despite the student selection process, not because of it.

Fortunately, the attention paid to teacher educators' structured professional learning is rapidly growing. The results in terms of teacher educators' structured professional learning programmes, including workshops or courses (e.g. Kosnik et al. 2011), observations and feedback (e.g. Schuck, Aubusson, and Buchanan 2008) and the communal learning model (e.g. Brody and Hadar 2018), are encouraging. In the gatekeeping context, professional learning could include teacher educators collaboratively co-constructing more unified and comprehensible student selection criteria based on the characteristics of the programme, or exchanging feedback on assessment practices when observing recordings of authentic selection interviews.

By enhancing teacher educators' knowledge and assessment practices in entrance examinations with structured professional learning it would be possible to execute student selection more equally, diminishing the effects of hidden quotas, and augment compatibility between student selection and teacher training. Nevertheless, more research on teacher educators' professional learning in the gatekeeping context should be conducted.

Limitations

The current study focused on investigating predictability in a second-order-setting, i.e., in teacher training (see Murray and Male 2005). Unfortunately, analysing teacher educators' ability to predict applicants' performance in a first-order-setting, i.e. in the teaching profession, is extremely challenging because in Finland the teacher's profession is based on autonomy and the enormous trust of the educational authorities (Tirri 2014). A minimum amount of supervision and lack of national tests exclude the possibility of making comparative judgements on the professional performance of individual teachers. To obtain data on performance in profession, new instruments measuring teachers' performance should be developed. Nevertheless, designing a valid statistical instrument to measure teacher quality has been considered problematic (Ballou and Springer 2015).

In addition, the study was unable to examine teacher educators' capability to identify and select out applicants who seem least suitable for the teaching profession or PSTE programme. Those students were excluded at the outset, hence their performance in the PSTE programme or teaching profession cannot be investigated.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- Azman, N. 2013. "Choosing Teaching as a Career: Perspectives of Male and Female Malaysian Student Teachers in Training." *European Journal of Teacher Education* 36 (1): 113–130. doi:[10.1080/02619768.2012.678483](https://doi.org/10.1080/02619768.2012.678483).
- Ballou, D., and M. G. Springer. 2015. "Using Student Test Scores to Measure Teacher Performance: Some Problems in the Design and Implementation of Evaluation Systems." *Educational Researcher* 44 (2): 77–86. doi:[10.3102/0013189X15574904](https://doi.org/10.3102/0013189X15574904).
- Bieri Buschor, C., C. Kappler, A. Keck Frei, and S. Berweger. 2014. "I Want to Be a Scientist/a Teacher: Students' Perceptions of Career Decision-making in Gender-typed, Non-traditional Areas of Work." *Gender and Education* 26 (7): 743–758. doi:[10.1080/09540253.2014.970615](https://doi.org/10.1080/09540253.2014.970615).
- Brody, D. L., and L. L. Hadar. 2018. "Critical Moments in the Process of Educational Change: Understanding the Dynamics of Change among Teacher Educators." *European Journal of Teacher Education* 41 (1): 50–65. doi:[10.1080/02619768.2017.1372741](https://doi.org/10.1080/02619768.2017.1372741).
- Corcoran, R. P., and J. O'Flaherty. 2018. "Factors that Predict Pre-service Teachers' Teaching Performance." *Journal of Education for Teaching* 44 (2): 175–193. doi:[10.1080/02607476.2018.1433463](https://doi.org/10.1080/02607476.2018.1433463).
- Croft, A., T. Schmader, K. Block, and A. S. Baron. 2014. "The Second Shift Reflected in the Second Generation: Do Parents' Gender Roles at Home Predict Children's Aspirations?" *Psychological Science* 25 (7): 1418–1428. doi:[10.1177/0956797614533968](https://doi.org/10.1177/0956797614533968).
- D'Agostino, J. V., and S. J. Powers. 2009. "Predicting Teacher Performance with Test Scores and Grade Point Average: A Meta-analysis." *American Educational Research Journal* 46 (1): 146–182. doi:[10.3102/0002831208323280](https://doi.org/10.3102/0002831208323280).
- Eurostudent. 2018. *Social and Economic Conditions of Student Life in Europe. Synopsis of Indicators*. doi: [10.3278/6001920cw](https://doi.org/10.3278/6001920cw).
- Finnish National Agency for Education. 2017. *Teachers and Principals in Finland 2016*. http://www.oph.fi/download/185381_teachers_and_principals_in_Finland_2016_brochure.pdf
- Flores, M. A., and L. Niklasson. 2014. "Why Do Student Teachers Enrol for A Teaching Degree? A Study of Teacher Recruitment in Portugal and Sweden." *Journal of Education for Teaching* 40 (4): 328–343. doi:[10.1080/02607476.2014.929883](https://doi.org/10.1080/02607476.2014.929883).
- Goodwin, A. L., and C. Kosnik. 2013. "Quality Teacher Educators = Quality Teachers? Conceptualizing Essential Domains of Knowledge for Those Who Teach Teachers." *Teacher Development* 17 (3): 334–346. doi:[10.1080/13664530.2013.813766](https://doi.org/10.1080/13664530.2013.813766).
- Goodwin, A. L., and C. Oyler. 2008. "Teacher Educators as Gatekeepers: Deciding Who Is Ready to Teach." In *Handbook of Research on Teacher Education: Enduring Questions in Changing Contexts*, edited by M. Cochran-Smith, S. Feiman-Nemser, and J. McIntyre, 468–490. New York, NY: Routledge.
- Hadar, L. L., and D. L. Brody. 2017. "Professional Learning and Development of Teacher Educators." In *Handbook of Research on Teacher Education*, edited by D. J. Clandinin and J. Husu, 1049–1064. Vol. 2. London: SAGE Publishers.
- Hamre, B. K., R. C. Pianta, J. T. Downer, J. DeCoster, A. J. Mashburn, S. M. Jones, J. L. Brown, et al. 2013. "Teaching through Interactions: Testing a Developmental Framework of Teacher Effectiveness in over 4,000 Classrooms." *The Elementary School Journal* 113 (4): 461–487. doi:[10.1086/669616](https://doi.org/10.1086/669616).
- Hattie, J. 2009. *Visible Learning: A Synthesis of over 800 Meta-analyses Relating to Achievement*. London: Routledge.
- Heinz, M. 2013. "Tomorrow's Teachers – Selecting the Best: An Exploration of the Quality Rationale behind Academic and Experiential Selection Criteria for Initial Teacher Education Programmes." *Educational Assessment, Evaluation and Accountability* 25 (2): 93–114. doi:[10.1007/s11092-013-9162-1](https://doi.org/10.1007/s11092-013-9162-1).
- Heinz, M. 2015. "Why Choose Teaching? an International Review of Empirical Studies Exploring Student Teachers' Career Motivations and Levels of Commitment to Teaching." *Educational Research and Evaluation* 21 (3): 258–297. doi:[10.1080/13803611.2015.1018278](https://doi.org/10.1080/13803611.2015.1018278).
- Hobson, A. J., P. Ashby, J. McIntyre, and A. Malderez. 2010. *International Approaches to Teacher Selection and Recruitment*. Paris: OECD Publishing.
- Kelchtermans, G., K. Smith, and R. Vanderlinde. 2018. "Towards an 'international Forum for Teacher Educator Development': An Agenda for Research and Action." *European Journal of Teacher Education* 41 (1): 120–134. doi:[10.1080/02619768.2017.1372743](https://doi.org/10.1080/02619768.2017.1372743).

- Klassen, R. M., and V. M. C. Tze. 2014. "Teachers' Self-efficacy, Personality, and Teaching Effectiveness: A Meta-Analysis." *Educational Research Review* 12: 59–76. doi:10.1016/j.edurev.2014.06.001.
- Kosnik, C., Y. Cleououlou, T. Fletcher, T. Harris, M. McGlynn-Stewart, and C. Beck. 2011. "Becoming Teacher Educators: An Innovative Approach to Teacher Educator Preparation." *Journal of Education for Teaching* 37 (3): 351–363. doi:10.1080/02607476.2011.588027.
- Loughran, J. 2011. "On Becoming a Teacher Educator." *Journal of Education for Teaching* 37 (3): 279–291. doi:10.1080/02607476.2011.588016.
- Lunenberg, M., J. Dengerink, and F. Korthagen. 2014. *The Professional Teacher Educator: Roles, Behavior and Professional Development of Teacher Educators*. Rotterdam: Springer Science & Business Media.
- MacNell, L., A. Driscoll, and A. N. Hunt. 2015. "What's in a Name: Exposing Gender Bias in Student Ratings of Teaching." *Innovative Higher Education* 40 (4): 291–303. doi:10.1007/s10755-014-9313-4.
- Meeus, W., W. Cools, and I. Placklé. 2018. "Teacher Educators Developing Professional Roles: Frictions between Current and Optimal Practices." *European Journal of Teacher Education* 41 (1): 15–31. doi:10.1080/02619768.2017.1393515.
- Murray, J. 2017. "Defining Teacher Educators: International Perspectives and Contexts." In *Handbook of Research on Teacher Education*, edited by D. J. Clandinin and J. Husu, 1017–1032. Vol. 2. London: SAGE Publishers.
- Murray, J., and T. Male. 2005. "Becoming a Teacher Educator: Evidence from the Field." *Teaching and Teacher Education* 21 (2): 125–142. doi:10.1016/j.tate.2004.12.006.
- OECD. 2004. *Learning for Tomorrow's World. First Results from PISA 2003*. Paris: OECD publishing.
- OECD. 2014. *New Insights from TALIS 2013: Teaching and Learning in Primary and Upper Secondary Education*. Paris: OECD Publishing.
- OECD. 2015. *Who Wants to Become a Teacher?*. Paris: OECD Publishing.
- OECD. 2016. *PISA 2015 Results (volume I): Excellence and Equity in Education*. Paris: OECD Publishing.
- OECD. 2017a. *PISA 2015 Results (Volume V): Collaborative Problem Solving*. Paris: OECD Publishing.
- OECD. 2018. *Education at a Glance 2018: OECD Indicators*. Paris: OECD Publishing.
- OSF. 2018. "Entrance to Education." Helsinki: Statistics Finland accessed 16 December 2018. https://www.stat.fi/til/khak/2017/khak_2017_2018-12-13_tie_001_en.html
- Prime Minister's Office. 2017. *Finland, a Land of Solutions: Mid-term Review. Government Action Plan 2017–2019*. Helsinki: Prime Minister's Office.
- Rasmussen, J., and M. Bayer. 2014. "Comparative Study of Teaching Content in Teacher Education Programmes in Canada, Denmark, Finland and Singapore." *Journal of Curriculum Studies* 46 (6): 798–818. doi:10.1080/00220272.2014.927530.
- Sanatullova-Allison, E. 2010. "Why Men Become Elementary School Teachers: Insights from an Elementary Teacher Education Program." *Action in Teacher Education* 31 (4): 28–40. doi:10.1080/01626620.2010.10463533.
- Schuck, S., P. Aubusson, and J. Buchanan. 2008. "Enhancing Teacher Education Practice through Professional Learning Conversations." *European Journal of Teacher Education* 31 (2): 215–227. doi:10.1080/02619760802000297.
- Stewart, S., L. Coombs, and B. Burston. 2016. "What's Sex Got to Do with It? the Preparation of Elementary Male Teacher Candidates." *Journal for Multicultural Education* 10 (1): 2–18. doi:10.1108/JME-07-2015-0024.
- Struyven, K., K. Jacobs, and F. Dochy. 2013. "Why Do They Want to Teach? the Multiple Reasons of Different Groups of Students for Undertaking Teacher Education." *European Journal of Psychology of Education* 28: 1007–1022. doi:10.1007/s10212-012-0151-4.
- Tirri, K. 2014. "The Last 40 Years in Finnish Teacher Education." *Journal of Education for Teaching* 40 (5): 600–609. doi:10.1080/02607476.2014.956545.
- Universities Act 558/2009. <http://www.finlex.fi/en/laki/kaannokset/2009/en20090558.pdf>
- Uusiautti, S., and K. Määttä. 2013. "Who Is a Suitable Teacher? the Over-100-year Long History of Student Selection for Teacher Training in Finland." *International Journal of Sciences* 2 (3): 109–118. <https://www.ijsciences.com/pub/pdf/V2-201303-17.pdf>
- Valli, R., and P. Johnson. 2007. "Entrance Examinations as Gatekeepers." *Scandinavian Journal of Educational Research* 51 (5): 493–510. doi:10.1080/00313830701576631.