Four reasons for becoming a teacher educator: A large-scale study on teacher educators' motives and well-being

Eric Richter[*], Rebecca Lazarides, Dirk Richter

University of Potsdam, Department of Education, Karl-Liebknecht-Straße 24-25, 14476, Potsdam, Germany

HIGHLIGHTS

- One of the first quantitative studies on teacher educators' motives.
- Valid and empirically reliable measurement of teacher educators' motives.
- Motives are *career aspirations, social contribution, escaping routines, coincidence.*
- *Career aspirations* is the most important motive for becoming a teacher educator.

ARTICLE INFO

ABSTRACT

We developed a new survey instrument to investigate teacher educators' motives for entering the profession and examined the associations between motives and job satisfaction and emotional exhaustion in both teachers and teacher educators. Using data from 145 teacher educators instructing in-service teachers, we identified four motives: *career aspirations, social contribution, escaping routines,* and *coincidence.* While *escaping routines* represents a 'push' factor associated with emotional exhaustion in teachers, *career aspirations* represent a 'pull' factor associated with job satisfaction in teacher educators. The instrument can be used as a self-assessment tool for the recruitment of teacher educators.

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1. Introduction

Teacher educators play an important role in both pre-service and in-service teacher education (Cochran-Smith, Grudnoff, Orland-Barak, & Smith, 2020). They teach classes, provide supervision, and offer school consultancy (Yuan & Yang, 2020). Despite the importance of their work, teacher educators are still often considered 'hidden professionals' due to the limited number of studies that have examined this group (Livingston, 2014; Tack, Valcke, Rots, Struyven, & Vanderlinde, 2018). Over the last decade, however, teacher educators have received increasing attention worldwide, and the number of studies has increased (Kelchtermans, Smith, & Vanderlinde, 2018). Researchers have started to focus on the nature of teacher educators' work by investigating their professional identities (Lunenberg, Dengerink, & Korthagen, 2014; Tack & Vanderlinde, 2016; Richter, Brunner & Richter, 2021) and professional development (Tack & Vanderlinde, 2019).

Only a few studies to date have examined the reasons why teachers decide to transition from teaching to teacher education (e.g., Guberman, Ulvik, MacPhail, & Oolbekkink-Marchand, 2020; Holme, Robb, & Berry, 2016; Yuan, 2016). The study by Guberman et al. (2020) discussed various features of teacher education that may lead teachers to develop an interest in becoming teacher educators, while Holme et al. (2016) and Yuan (2016) identified specific reasons for entering the profession, including professional or personal reinvention. Although past research suggests a range of possible motives, none of the existing studies has investigated teachers' motives for entering teacher education in relation to occupational outcomes such as job satisfaction and emotional exhaustion.

* Corresponding author.
   E-mail address: eric.richter@uni-potsdam.de (E. Richter).

Against this backdrop, the present study aims to contribute to a better understanding of the reasons why teachers embark on a career in teacher education. We investigate the motives of teacher educators who work with in-service teachers and the relationship between these motives and aspects of their professional well-being, which has been shown to be a prerequisite for successful performance in the teaching profession (Klusmann, Kunter, Trautwein, Lüdtke, & Baumert, 2008). In particular, this study aims to answer four questions: (1a) Can different motives for becoming a teacher educator be measured using a multifaceted, theory-driven instrument? (1b) To what extent do teacher educators report different motives for becoming teacher educators? (2a) What is the relationship between one's well-being as a teacher and (2b) teacher educator and the motives for becoming a teacher educator?

In the following, we first provide a possible theoretical framework to conceptualise motives for becoming a teacher educator. We then proceed with a brief review of the literature on this topic and discuss the relationship between the motives leading to a career in teacher education and aspects of teachers' and teacher educators' well-being, focusing on job satisfaction and emotional exhaustion.

2. Theoretical background

2.1. Push-pull theory

People in the teaching profession have various motives for their career choices (Watt & Richardson, 2007). Studies on work and career motivation across different professions have classified the motives into 'push' and 'pull' factors (Kirkwood, 2009). Push factors represent personal or external circumstances that cause people to react in a given situation. In the workplace context, they tend to be associated with negative feelings. In contrast, factors that 'pull' someone to make a decision—for instance, to proactively start something new—tend to be associated with positive feelings (Hakim, 1989; Kirkwood, 2009).

While push-pull theory has been used widely in studies on economic behavior (Kirkwood, 2009; Segal, Borgia, & Schoenfeld, 2005), only a few studies have attempted to apply this theory to research on teachers or teacher educators. Anthony and Ord (2008), for example, used this approach to investigate career change motives of second-career teachers, defining push factors as 'those factors that provided momentum (or activation energy) towards seriously re/considering teaching as a career', which includes 'being dissatisfied with aspects of one's job(s), changing location and not being able to find a job in their usual occupational area or losing one's job' (Anthony & Ord, 2008, p. 365). They considered pull factors to be 'those that seemed to draw people to teaching', which includes 'task demand factors such as looking for a challenge, antecedent factors such as always wanting to be a teacher and perceiving a career fit both on a personal ability level and a prior experiential level' (Anthony & Ord, 2008, p. 365). In addition, push-pull theory was also used in a recent qualitative study aimed at understanding whether teacher educators were 'pushed' toward a career move or 'pulled' towards teacher education (Holme et al., 2016). The present study follows this approach and attempts to measure push and pull factors of teacher educators and to examine their relationships to aspects of well-being.

2.2. Motives for becoming a teacher educator

Teacher educators as a group are still under-researched and poorly understood (Bates, Swennen, & Jones, 2010; Murray & Kosnik, 2011). Teacher educators can be described in general terms as those 'who actively facilitate the (formal) learning of student teachers and teachers' (European Commission, 2013, p. 8). In this broad sense, 'teacher educator' is used as a generic and overarching umbrella term that encompasses all types of educational professionals who are involved in and responsible for pre-service and in-service teacher training (Kelchtermans et al., 2018). The group ranges from teacher educators based in institutions of higher learning that provide pre-service teacher training to those who provide in-service teacher training in schools (White, 2014). This study, however, focuses on teacher educators working with in-service teachers.

Since teacher educators work in different settings that differ from one country to the next, there are various ways of becoming a teacher educator (Guberman et al., 2020). Teacher educators often describe their path into teacher education as unstructured (Mayer, Mitchell, Santoro, & White, 2014; Murray & Male, 2005). In a qualitative study of 19 Australian university-based teacher educators, Mayer, Mitchell, Santoro, and White (2011) reported how people metaphorically 'fell into' teacher education and characterised the transition as a non-active decision. The authors of the study conclude that becoming a teacher educator is usually not a consequence of deliberate decisions. This finding is in line with another study of 20 university-based teacher educators in the United States (Goodwin et al., 2014), and other qualitative small-scale studies from different countries (McEvoy, Heikinaro-Johansson, & MacPhail, 2019; Edmond & Hayler, 2013).

Whereas the aforementioned studies show that many teachers enter teacher education essentially by chance, other studies provide evidence of a deliberate decision (Gubermann et al., 2020; Montenegro Maggio, 2016). In a cross-cultural study conducted in Ireland, Israel, Norway, and the Netherlands, 41 university-based teacher educators were interviewed about their recruitment to the profession (Guberman et al., 2020). Results show that about half of the teacher educators (51.2%) initiated the transition to teacher education themselves, while the other half entered teacher education after being recruited by headhunting agencies (31.7%) or simply fell into it by chance ('serendipity') (17.1%). This is consistent with the findings of a qualitative study conducted with seven teacher educators working in Chile (Montenegro Maggio, 2016). In this study, some of the teacher educators entered the teacher education program by chance and others named a particular reason for enrolling. These results imply that a significant proportion of teacher educators actively pursue careers in teacher education.

With this in mind, Guberman et al. (2020) asked study participants about their reasons for becoming teacher educators. Teachers cited mainly pragmatic reasons, such as the desire to change their regular work environment. The study also found some evidence that teachers saw the position as teacher educator as a stepping stone to other professions such as research. Building on these findings, a case study from the United Kingdom focusing on three university-based teacher educators (Holme et al., 2016) aimed to identify key factors in the decision to change careers from teacher to teacher educator using an auto-ethnographic self-study approach (e.g., using elements of reflecting free writing, mind mapping, and discussion). The data analysis revealed three different themes, each representing a group of motivational factors. Theme 1 (exploration and reinvention) represented the participants' desire to explore possibilities and reinvent themselves professionally and personally. This theme comprised a desire for career development (e.g., statement of a respondent: 'I want more', Holme et al., 2016, p. 345), but also a striving to get away from school (e.g., statement of a respondent: 'The autonomy that our current job affords us allows us to avoid some of the stresses that can occur in a more regimented school environment', Holme et al., 2016, p. 345). Theme 2 referred to the presence of 'key figures' who influenced participants' transition to teacher education, such as colleagues,

friends, and family members (e.g., statement of a respondent: 'Another influence of the career path that I had chosen is down to my wife'; Holme et al., 2016, p. 346). However, Holme et al. (2016) emphasize that the nature of influence differs for each individual. Key figures may contribute both through direct encouragement, support or advice and through their role as inspirational role models. Finally, Theme 3 described a positive and proactive stance towards learning, expressed in the desire to continue learning for individual development but also to share learning experiences with others (e.g., statement of a respondent: '[…] one of the things I enjoyed most was delivering staff training and CPD sessions', Holme et al., 2016, p. 347).

In sum, our review of the literature shows that studies on teacher educators' motives are sparse and that the existing research is mainly qualitative and exploratory, with mixed findings. The reasons for entering teacher education appear manifold and include both push factors (e.g., changes in work environment) and pull factors (e.g., career development). The few existing studies point to four main reasons for starting a career as a teacher educator: First, individuals may 'fall into' the profession without any identifiable motivation, which can be described as coincidence (Goodwin et al., 2014; Mayer et al., 2011). A second reason could be a desire to pursue professional development, which can be described as career aspirations (Guberman et al., 2020; Holme et al., 2016). A third reason is that individuals may want to change their daily work environment, which can be described as an escape from routine (Guberman et al., 2020; Holme et al., 2016). A fourth reason could be an enjoyment of supporting others in their professional development, which can be understood as social contribution (Holme et al., 2016).

2.3. Career change and well-being

Teachers often make a mid-career transition into teacher education, a field with different tasks and responsibilities from the field in which they were originally trained and have gained expertise (Murray & Male, 2005). From a theoretical point of view, career changes can be understood as a consequence of specific motives, which are based, among other things, on aspects of professional well-being (Rhodes & Doering, 1983). Professional well-being can be understood as optimal psychological functioning and experience at work (Ryan & Deci, 2001). It includes the presence of positive experiences, such as job satisfaction, and the absence of negative experiences, such as emotional exhaustion (Diener, Suh, Lucas, & Smith, 1999).

The present study covers both the positive and the negative dimensions of well-being by addressing job satisfaction and emotional exhaustion. The research literature conceptualises job satisfaction as people's positive or negative evaluative judgments about their jobs (Weiss, 2002). Skaalvik and Skaalvik (2011, p. 1030) applied this concept to teachers and defined job satisfaction 'as teachers' affective reactions to their work or to their teaching role'. In contrast, emotional exhaustion is the core element of burnout. It is characterised by a low energy level and chronic fatigue including the feeling of tension and exhaustion of emotional resources (Maslach, Schaufeli, & Leiter, 2001; Schwarzer, Schmitz, & Tang, 2000).

Although the relevance of teachers' well-being for their transition to teacher education has been left largely unexplored in the research, a number of studies have emphasised the relationship of teachers' job satisfaction and emotional exhaustion to teacher retention and attrition. Job satisfaction, for example, shows a negative association with the intention to leave the teaching profession, whereas emotional stress shows a positive correlation with leaving the teaching profession (Harmsen, Helms-Lorenz, Maulana,

& van Veen, 2018; Skaalvik & Skaalvik, 2011, 2015). In this light, teachers' lack of well-being can be considered a push factor that influences the motivation to change careers.

A few qualitative studies on teacher educators contain information that can help to understand how teacher educators perceive their work as teachers. In the study by Holme et al. (2016) focusing on the motives of three university-based teacher educators, one teacher educator reported stressful moments in his or her work as a teacher. Another teacher educator reported no longer wanting to deal with school issues. Holme et al. (2016) interpreted these statements as an expression of avoidance of teacher-related responsibilities, which would in turn indicate respondents' negative evaluation of their position as teachers as a foundation for their decision to become teacher educators. In a case study of two university-based teacher educators from Hong Kong, Yuan (2016) reported the case of a teacher who was frustrated by the unfair promotion system at his previous school and decided to leave the job before starting to work as a teacher educator. Again, this case study indicates that a negative experience as a school teacher can result in a change of profession.

While the motives for becoming a teacher educator may be related to well-being as a teacher, the research literature also points to relationships between the motives for changing careers and well-being as a teacher educator. Studies on the motives for the choice of a career in teaching have shown that the types of motives are related to teachers' future job satisfaction (Watt & Richardson, 2007; Watt, Richardson, & Wilkins, 2014).

Again, findings on the relationship between motives for becoming a teacher educator and the well-being of teacher educators are sparse. However, some studies provide first insights into the relationships. Yuan (2016) reported the case of a teacher who had started a career in teacher education essentially by chance, without any specific reason, and experienced a 'reality shock' during the transition from teacher to teacher educator due to the unexpected demands of the new position. In contrast, another teacher educator reported the specific motivation to contribute to the professional development of student teachers. This individual found it refreshing and meaningful to be a teacher educator, which indicates a pronounced sense of well-being in the profession. This is in line with findings reported by Vanassche and Kelchtermans (2016).

In sum, the literature provides some evidence that negative experiences as a teacher play an important contributing role in the desire for a career change. However, it is still unclear whether satisfied and less exhausted teachers are also motivated to make a mid-career change to become teacher educators. Moreover, the literature indicates that especially teacher educators who see their profession as an opportunity to make a social contribution perceive their new profession positively, while those with no specific motives for becoming teacher educators may be surprised and overwhelmed by the demands of the profession, which in turn may have a negative impact on their well-being.

3. Research goal and question

This study is interested in the motives influencing the decision to become a teacher educator serving in-service teachers, and in the relationship between teacher educators' motives for this career choice and their well-being—both previously as teachers and in their new job as teacher educators. This is one of the first studies to examine the reasons why teachers choose a career in teacher education. Prior research has produced important findings on this topic, but according to Lunenberg et al. (2014), more large-scale and quantitative research on teacher educators is still needed. Furthermore, we contribute to research on school-based teacher

educators, who have been underrepresented in previous research. The study was guided by four research questions:

Research Question 1a: Can different motives for becoming a teacher educator be measured using a multifaceted, theory-driven instrument? If so, to what extent are teachers' motives correlated?

Qualitative research on motives for pursuing a career in teacher education has revealed a number of different reasons for this career choice. In relation to push-pull theory (Kirkwood, 2009), we expect to find evidence of motives that refer both to previous experience as a teacher (push factors) and to anticipated benefits as a teacher educator (pull factors). On the side of the push factors, we expect the intention to escape the daily school routine to be a primary motive (Holme et al., 2016). On the side of the pull factors, we expect that teachers are motivated by career aspirations (Guberman et al., 2020; Holme et al., 2016) but also by the idea of making a social contribution to the advancement of teachers and schools (Holme et al., 2016; Vanassche & Kelchtermans, 2016). Furthermore, we expect some teachers to fall into the profession by coincidence (Goodwin et al., 2014; Mayer et al., 2011; Yuan, 2016). Consequently, we expect to find the following motives for teachers to move into a teacher educator role: career aspirations, social contribution, escaping routines, and coincidence.

Research Question 1b: To what extent do teacher educators report different motives for becoming teacher educators?

Some of the previous research has emphasised that many teacher educators fall into this profession in an unplanned, accidental manner (Goodwin et al., 2014; Mayer et al., 2011). We therefore expect to find high levels of coincidence among teacher educators. However, since most research on this question is descriptive and qualitative rather than using quantitative measures, we did not formulate additional hypotheses.

Research Question 2a: What is the relationship between one's well-being as a teacher and the motives for becoming a teacher educator?

From a theoretical point of view, motives that can be seen as push factors in the change of career from teaching into teacher education could be related to teachers' well-being in their position prior to career change (Kirkwood, 2009; Rhodes & Doering, 1983). Based on both push-pull theory and results of qualitative research on teacher educators, we expect that the push factor of escaping routines is negatively related to the perception of well-being as a teacher (Holme et al., 2016; Kirkwood, 2009). In addition, we expect that falling into the profession by coincidence is not related to the perception of well-being as a teacher (Yuan, 2016).

Research Question 2b: What is the relationship between one's well-being as a teacher educator and the motives for becoming a teacher educator?

In line with the previous hypothesis, based on theoretical and empirical research, we expect to find a relationship between teachers' motives for becoming teacher educators and their well-being as teacher educators (Kirkwood, 2009; Watt & Richardson, 2007). In particular, we expect the pull factors of career aspirations and social contribution to be positively related to the well-being of teacher educators (Vanassche & Kelchtermans, 2016; Yuan, 2016). In addition, we expect that falling into the career of teaching by coincidence is negatively related to the perception of well-being as a teacher educator due to potential 'reality shock' (Yuan, 2016).

4. Methodology

4.1. Study design and context

The present study uses a cross-sectional design to examine motives of school-based teacher educators and the relationships between their motives and their professional well-being. The study was conducted in a large federal state in Germany. All teacher educators work in a school district that provides ongoing teacher training. Within each district, staff meetings are held regularly with all teacher educators to reflect on their teaching practices and discuss organisational issues. To become a teacher educator in this federal state, a standardised training program must be completed that provides teachers with skills and competencies in various areas such as communication and counselling. Moreover, all teacher educators work only part-time as teacher educators in their school districts and spend the rest of their time as public school teachers. The number of hours spent working as teacher educators differs between individual teacher educators.

4.2. Sample

The federal state employs a total of 304 teacher educators who provide classes for all in-service teachers. We conducted a paper-and-pencil survey at a mandatory staff meeting in the school district in spring of 2019. Mandatory attendance meant that the teacher educators were only allowed to miss the meeting for unavoidable reasons such as illness. In total, 145 of 304 teacher educators attended the staff meeting. The exact reasons for the absence of the other teacher educators are not known. All individuals present at the staff meeting participated voluntarily in the survey. Therefore, we obtained responses from 47.7% the population of all teacher educators in this federal state. All data were suitable for use in the data analysis.

The majority of the teacher educators in the sample were female (68.3%) and had been working on average for 24.3 years as teachers ($SD = 10.9$) and for 10.1 years as teacher educators ($SD = 7.2$) at the time of the study.

4.3. Measures

We assessed demographic background information on the teacher educators, their motives, and their well-being as both teachers and teacher educators using a paper-pencil-questionnaire.

4.3.1. Motives

Since this is one of the first studies to examine the motives of teacher educators in a quantitative investigation, we first had to develop new items and scales. We followed a multi-stage procedure that began with an intensive literature review of proven and frequently cited studies on this issue in order to connect our work with previous research and to build cumulative knowledge. Based on the literature review, we developed items to capture the main motives for becoming a teacher educator (Goodwin et al., 2014; Holme et al., 2016; Mayer et al., 2011; Vanassche & Kelchtermans, 2016; Yuan, 2016). In a second step, we collected feedback on the test instrument from various experts in the field of teacher education. We first discussed our instruments with representatives of the institution that provided the official standardized training program for teacher educators, then presented our revised instrument to the Ministry of Education of the federal state and finally to experienced teacher educators. Based on the various feedback, items were dropped and in some cases new items were developed by our team together with the expert groups. In the end, no problems were identified concerning the wording of instructions or items developed to study the motives of teacher educators.

We distinguished the following motives: *career aspirations*, *social contribution*, *escaping routines*, and *coincidence*. Each motive was measured with two items. The first motive (*career aspirations*) indicates that teachers became teacher educators to advance professionally to become a school principal or a member of the school

administration. The second motive (*social contribution*) illustrates the degree to which a teacher educator wants to improve the educational system in general, for example, by supporting teachers in their professional growth. The third motive (*escaping routines*) reflects the extent to which a teacher educator has chosen this career path in order to escape the daily routines and responsibilities of being a teacher. Finally, the fourth motive (*coincidence*) captures the possibility that teacher educators entered the profession without a specific reason. Respondents were asked to rate all eight items on a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). The full instrument is provided in the Appendix A. Information about the means and standard deviations as well as the reliability of the scales is presented in the results section.

4.3.2. Aspects of well-being

To capture aspects of well-being, we assessed four measures: *job satisfaction as a teacher* and *as a teacher educator*, and *emotional exhaustion as a teacher* and *as a teacher educator* (see Appendix A). We assessed both perspectives of *job satisfaction* with the same instrument. We used the German version (Merz, 1979) of the Work Satisfaction Scale of the Job Diagnostic Survey (Hackman & Oldham, 1975). Respondents were asked to rate six items from the perspective of the teacher and the teacher educator on a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). An example item is, 'All in all, I am very happy with my work'. Reliability as measured by the internal consistency yielded a McDonald's ω of 0.80 for the teacher perspective and an ω of 0.83 for the perspective of the teacher educator. The correlation between both scales is positive, statistically significant, and medium in size ($r = 0.41$, $p < .01$). To check the robustness of the two-factor model, we compared the results with a one-factor model in which all twelve items were set to load on the same factor. The results suggest that the two-factor model showed a better fit to the data, implying that items assessing job satisfaction as a teacher and as a teacher educator need to be differentiated.

We assessed both perspectives of *emotional exhaustion* with the German adaption of the Maslach Burnout Inventory (Enzmann & Kleiber, 1989; Maslach, Jackson, & Leiter, 2010, p. 3) with items rated on a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). An example item is 'I often feel bored at work'. Our version uses five items that were assessed from the perspective of the teacher and the teacher educator. Reliability as measured by the internal consistency yielded a McDonald's ω of 0.69 for the perspective from the teacher and ω of 0.70 for the perspective from the teacher educator. The correlation between both scales is positive, statistically significant and medium in size ($r = 0.45$, $p < .01$). To also check robustness of this two-factor model, we compared the results with a one-factor model in which all ten items were set to load on the same factor. The results suggest that the two-factor model showed better fit to the data, implying that items

assessing emotional exhaustion as a teacher and as a teacher educator need to be differentiated. All descriptive statistics and correlations can be found in Table 1.

4.3.3. Background information on teacher educators

To describe the sample, we assessed gender (0 = male, 1 = female), job experience as a teacher (in years), and job experience as a teacher educator (in years). Descriptives for both measures as well as correlations with aspects of well-being are provided in Table 1.

4.4. Data analysis

To investigate whether different motives of teacher educators can be measured according to a multifaceted theory-driven structure (research question 1a), we conducted a confirmatory factor analysis (CFA) to evaluate the construct validity of the instrument. The CFA model uses a latent variable to represent each motive with the respective indicators. CFA allows us to model latent factors by also taking measurement errors into account. Indices of model fit were evaluated using the recommendations of Hu and Bentler (1999) for comparative fit index (CFI; > 0.95), Tucker-Lewis index (TLI; > 0.95), root mean squared error of approximation (RMSEA; < 0.06), and standardised root mean squared residual (SRMR; < 0.08). Internal consistency of the instrument was evaluated by McDonald's (1999) omega. In recent methodological studies it is recommended to use omega coefficient instead of the Cronbach alpha coefficient (Hayes & Coutts, 2020; Zinbarg, Revelle, Yovel, & Li, 2005). The main argument is that the alpha coefficient makes unrealistic assumptions because it assumes τ-equivalent or equal factor loadings of the items of the investigated scale (Hayes & Coutts, 2020; Zinbarg et al., 2005). Dunn, Baguley, and Brunsden (2014) argues that violation of this assumption causes alpha to inflate. However, the omega coefficient makes fewer and more realistic assumptions than alpha and inflation is less likely (Dunn et al., 2014). Nájera Catalán (2019) consider $\omega \geq 0.65$ as the very minimum to be reliable.

To investigate the relationship between motives for becoming a teacher educator and well-being as teacher and as teacher educator, we estimated a set of four multiple regression models. For each of the four dependent variables (Model 1: job satisfaction as a teacher; Model 2: emotional exhaustion as a teacher; Model 3: job satisfaction as a teacher educator; Model 4: emotional exhaustion as a teacher educator), we estimated a regression model including each of the four motives as independent variables. In Model 1 and Model 2, we also include sex and job experience as a teacher as covariates. In Model 3 and Model 4, we include sex and job experience as a teacher educator as covariates. The alpha level was set at 5% level.

All analyses affecting the research questions were conducted using M*plus* version 8 (Muthén & Muthén, 1998−2017). Parameters were estimated by maximum likelihood estimation method (ML).

Table 1
Correlation coefficient estimates for relationships between background variables and well-being as teachers and teacher educators.

	M	SD	ω	1	2	3	4	5	6	7
1 Gender	.71	.46	—	—	.05	-.15	.03	-.04	.05	-.03
2 Job experience as teacher	24.29	10.53	—		—	.64**	-.19*	-.03	-.26**	.20*
3 Job experience as teacher educator	10.13	7.21	—			—	-.08	-.02	-.09	.16
4 Job satisfaction as teacher[a]	3.31	.54	.80				—	-.59**	.41**	-.28**
5 Emotional exhaustion as teacher[a]	2.16	.70	.69					—	-.22*	.45**
6 Job satisfaction as teacher educator[a]	3.28	.54	.83						—	-.67**
7 Emotional exhaustion as teacher educator[a]	1.94	.56	.70							—

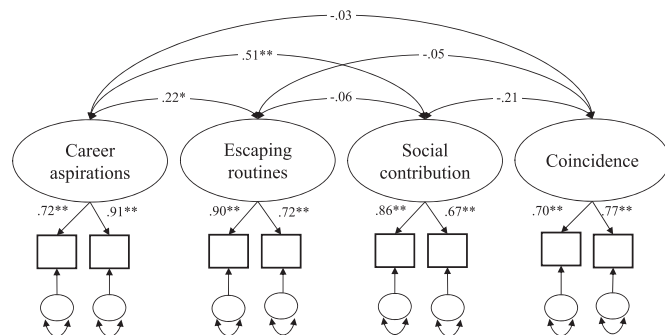Note.*$p < .05$; **$p < .01$.
[a] Range 1−4.

Missing value analysis was conducted by performing Little's (1988) MCAR test (using IBM SPPS Statistics 26) in order to identify potential patterns in missing data that might bias the analysis. In case of a non-significant Little's MCAR test, data were considered to be missing completely at random (MCAR) and therefore found to be eligible for full information maximum likelihood (FIML) estimation. FIML methods produced unbiased estimates even in the presence of missing data if the missing process was considered missing at random (Schafer & Graham, 2002). For all dependent, independent, and control variables, Little's MCAR test was not significant ($\chi^2 = 102.49$, $df = 87$, $p = .12$). For this reason, the data for all parameters were concluded to be MCAR. FIML was therefore considered safe and was applied.

5. Results

5.1. Measuring motives for becoming a teacher educator

The first research question addresses motives for becoming a teacher educator. Fig. 1 depicts the CFA model with the four motives as correlated latent variables. Each latent variable comprises two indicators (manifest items). All standardised factor loadings vary between 0.67 and 0.91 and differ significantly from zero at the 0.001 level. The results suggest that all items load significantly on the hypothesised latent factor. The estimated model meets the criteria specified by Hu and Bentler (1999) and therefore indicates a good fit to the data ($\chi^2 = 20.93$, $df = 16$, $p = .18$, CFI = 0.98, RMSEA = 0.05, SRMR = 0.04). To check robustness of the four-factor model, we compared the results with a one-factor model in which all eight items were set to load on the same factor. The results suggest that the one-factor model showed poor fit to the data, implying that items assessing teacher educators' motives need to be differentiated ($\chi^2 = 153.38$, $df = 20$, $p < .05$, CFI = 0.42, RMSEA = 0.22, SRMR = 0.15).

The correlations presented in the model differ in magnitude, and only two of them are statistically significant. A high positive correlation can be found between *career aspirations* and *social contribution*. A small positive correlation can be found between *career aspirations* and *escaping routines*. All other correlations are not statistically significant. However, the correlation between *social contribution* and *coincidence* is also medium in size. The results suggest that the motives for becoming a teacher educator can be sufficiently differentiated. Finally, a reliability analysis was performed to examine the internal consistency of the four factors ($0.70 > \omega > 0.79$). All four scales were found to be reliable when
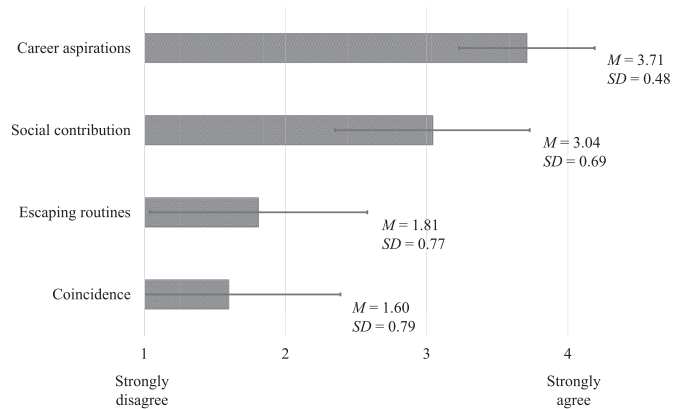
Fig. 2. Means and standard deviations of motives for becoming a teacher educator.

following the recommendations of Nájera Catalán (2019), implying that different motives for becoming a teacher educator were measured reliable. In conclusion, measure of motives for becoming a teacher educator demonstrated a good validity and reliability.

5.2. Descriptive analyses of motives for becoming a teacher educator

Research question 1b focuses on the reported motives for becoming a teacher educator using descriptive analyses. The different mean scores of the four scales indicate that most teacher educators decided to enter this profession because of two motives: *career aspirations* and *social contribution* (Fig. 2). Both motives represent pull factors, which make people move into a profession instead of moving away from it. The mean scores for both motives can be interpreted as high agreement on a Likert scale from 1 (low) to 4 (high). Moreover, teacher educators tend to switch to teacher education only rarely in order to escape from routines. Moreover, falling into the profession by coincidence also appears to be a rare phenomenon. Both mean scores indicate low agreement on the scale.

5.3. Relationships between career change motives and well-being as a teacher

Research question 2a focuses on the relationship between the motives for becoming a teacher educator and the perceived well-being of teachers. We answer this research question by estimating a set of two multiple regressions that include the four motives as predictor variables and job satisfaction and emotional exhaustion as teacher as dependent variables. Model 1 predicts job satisfaction as a teacher, while Model 2 predicts emotional exhaustion as a teacher. Results are reported in Table 2.

The result of Model 1 shows that *escaping routines* as a motive to become a teacher educator was negatively related to job satisfaction as a teacher: This implies that teachers with high job satisfaction were less likely to become teacher educators with the motive of escaping their routines. In addition, the control variable *job experience as teacher* demonstrates a significant negative effect, indicating that more experienced teachers report a lower level of job satisfaction as teachers. Regarding Model 2, results show a medium positive and statistically significant relation between *escaping routines* and emotional exhaustion as a teacher. Furthermore, results also show a small significant negative relationship between *career aspirations* and emotional exhaustion as a teacher. On the one hand, this means that teachers who feel exhausted in

Note. * p < .05, ** p < .01
$\chi^2 = 20.93$, $df = 16$, $p = .18$, CFI = .98, RMSEA = .05, SRMR = .04.

Fig. 1. Measurement model of motives for becoming a teacher educator.

Table 2
Multiple regression of teacher educators' motives on their well-being as teacher educator.

Predictors	(1) Job satisfaction as teacher			(2) Emotional exhaustion as teacher			(3) Job satisfaction as teacher educator			(4) Emotional exhaustion as teacher educator		
	β	SE	p	β	SE	p	β	SE	p	β	SE	p
Gender	.02	.09	.85	-.04	.09	.68	.06	.09	.51	-.02	.08	.85
Job experience[a]	**-.24**	**.09**	**.01**	.03	.09	.79	.01	.09	.91	.10	.08	.23
Coincidence	.10	.09	.28	-.08	.09	.38	-.04	.09	.65	.14	.09	.08
Social contribution	.13	.09	.18	-.09	.09	.37	.04	.09	.64	**-.19**	**.09**	**.03**
Escaping routines	**-.28**	**.09**	**< .01**	**.30**	**.09**	**< .01**	**.19**	**.09**	**.03**	-.14	.08	.09
Career aspirations	-.01	.09	.92	**-.24**	**.09**	**.01**	**.35**	**.09**	**< .01**	**-.35**	**.08**	**< .01**
R^2		.16			.17			.18			.26	

Note.
[a] Model 1 and 2 = job experience as teacher; Model 3 and 4 = job experience as teacher educator; β = standardised regression coefficient.

their profession are more likely to become teacher educators to escape a stressful work situation. On the other hand, our results also imply that teachers who feel less exhausted in their profession become teacher educators for career development reasons.

5.4. Relationships between career change motives and well-being as a teacher educator

Similar to the procedure used to answer the previous research question, we address the relationships between the motives for becoming a teacher educator and the perceived well-being of teacher educators. We answer this research question by estimating a set of two multiple regressions that include the four motives as predictor variables and job satisfaction and emotional exhaustion as teacher educator as dependent variables. Model 3 predicts job satisfaction as teacher educator, and Model 4 predicts emotional exhaustion as teacher educator. Results are shown in Table 2.

The result of Model 3 shows that *career aspirations* and *escaping routines* were positively related to job satisfaction as a teacher educator. This implies that teachers who chose a career in teacher education either to boost their career or to escape the day-to-day business of working as a teacher in school are happier as teacher educators. Regarding Model 4, results show a negative and statistically significant relationship between both *career aspirations* and *social contribution* and emotional exhaustion as a teacher educator. This indicates that teachers who chose to become teacher educators to prepare themselves for other tasks or to help teachers improve their skills feel less burdened by their new profession.

6. Discussion

This study aimed to investigate whether different facets of teacher educators' motives can be measured through a self-report instrument with good psychometric properties. This study sought to discover to what extent teacher educators serving in-service teachers in a federal state in Germany report different motives for having chosen this profession and whether their motives are related to aspects of their well-being. For this purpose, the first large-scale study was conducted on the motives for choosing a career in teacher education. This study supplements the predominantly small-scale qualitative research by using a quantitative, large-scale approach to investigating motives for becoming a teacher educator and teacher educators' perceptions of their job. The need for such a study was already pointed out in the review by Lunenberg et al. (2014), who concluded that 'solid quantitative studies are almost completely absent in the literature' (p. 72). To fill this gap, a new instrument was developed to capture different motives of teacher educators and presented first evidence of its validity and reliability. In the following, all findings of the present study are summarised and both limitations and implications are discussed.

6.1. Motives for becoming a teacher educator

The primary aim of the study was to identify key factors that influenced a teacher's decision to become a teacher educator. The study showed that we can differentiate four different motives: *career aspirations*, *social contribution*, *escaping routines*, and *coincidence*. Our results show that teacher educators' motives are interrelated to some extent. This is in line with findings on research on motivations for choosing the teaching profession (König & Rothland, 2012). In this sense, teacher educators were not driven to pursue a career in teacher education primarily by a single motive, but rather by several different motives simultaneously. The strongest relationship was found between *career aspirations* and *social contribution*.

The results confirm our assumption, based on push-pull theory (Kirkwood, 2009), that the motives for becoming a teacher educator are driven by previous experiences as a teacher (push factors, e.g.: *escaping routines*) and by the anticipated benefits of being a teacher educator (pull factors, e.g.: *career aspirations*), although all motives differ in strength. In addition, our results contribute to the small body of literature by replicating findings from previous qualitative research that showed similar reasons for becoming a teacher educator, such as career aspirations and the desire to make a social contribution. (Goodwin et al., 2014; Holme et al., 2016; Mayer et al., 2011; Vanassche & Kelchtermans, 2016).

We were also able to demonstrate that career aspirations and the desire to make a social contribution were the major reasons in our sample for choosing to become teacher educator. The escape from routine seems to be a relatively unimportant reason for choosing this career path in our sample. The results demonstrate that teacher educators who previously worked as school teachers did not take up their new positions because they felt overwhelmed with their previous work as teachers and therefore wanted to leave it. Falling into the profession by coincidence also seems to be a rare phenomenon. In some ways, the results contradict our expectation based on previous research that most teacher educators find their way into this profession by chance (Goodwin et al., 2014; Mayer et al., 2011). One possible explanation for this contradictory result is that teacher educators serving in-services teachers in Germany have to complete a training program prior to entering the profession. This training program could represent a hurdle that prevents people from simply falling into the profession and requires a more deliberate decision to pursue teacher education as a career.

6.2. Motives and well-being

This study is one of the first that links teacher educators' motives for their career choice with their perceived well-being as both as teachers and as teacher educators. In line with our expectations and findings from previous qualitative research (Holme et al., 2016; Yuan, 2016), *escaping routines* (push factor) is negatively associated with job satisfaction as a teacher. Contrary to our expectations, there is also a correlation between well-being as teacher and the motive *career aspirations*, which we consider a push factor. In particular, teacher educators who score high on this motive report that they felt less exhausted by their work as teachers. This finding is quite intuitive, considering that there seems to be a group of individuals who feel less burdened by their work and want to use their capacities to further their career. This relationship manifests itself in the statement 'I want more' of a respondent in the study by Holme et al. (2016, p. 345), who also wanted to advance his or her career.

In addition, we also found positive associations between pull factors and well-being as a teacher educator, in line with our expectations and prior research (Holme et al., 2016; Vanassche & Kelchtermans, 2016; Yuan, 2016). In particular, we found that individuals with higher scores on *career aspirations* show lower levels of emotional exhaustion and higher levels of job satisfaction as teacher educators. Moreover, the motive *social contribution* is also negatively associated with emotional exhaustion as a teacher educator. This is in line with findings on pre-service teachers' job motivation (Rothland, 2013). Contrary to our expectations, we found a positive relationship between the motive of *escaping routines* and satisfaction as a teacher educator.

It seems that factors 'pulling' participants toward a career in teacher education exerted a greater positive influence in the sense that the motives of *social contribution* and *career aspirations* were both negatively related to emotional exhaustion as a teacher educator and the latter was also positively associated with job satisfaction as a teacher educator. The findings thus correspond with our expectations and with findings from the qualitative study by Holme et al. (2016). The description of a potential source of well-being for teacher educators could be of great importance for further research in this field, since Andreasen, Bjørndal, and Kovač (2019) found that job satisfaction is an important prerequisite for teacher educators being able to develop a professional identity that can help them to be successful in the profession.

6.3. Limitations and future research

Apart from several strengths, our study also has a few limitations. A first limitation of our study is that it was conducted in only one federal state in Germany. National and international replications of this study are necessary to test the generalizability of our conclusions. Second, our study is based solely on self-reports. The results could be susceptible to social desirability bias, meaning that some motives could be over- or underestimated (Furnham, 1986). Third, this study is based on a cross-sectional design that does not allow for identification of cause and effect. For this reason, we cannot make any causal interpretation. Longitudinal research would be necessary to first measure teachers' well-being, then their motives for career change, and finally their well-being as teacher educators. Fourth, we present only a range of possible motives and do not claim to cover all motives comprehensively. For example, we have not included the key figures mentioned by Holme et al. (2016) in this study because we were more interested in what brings people into teacher education and not who chooses this profession. Fifth, only 47.7% of all possible teacher educators attended the mandatory staff meeting and participated in this study. Since the

reasons for the absences are not known, it is possible that this may affect the results. However, this is unlikely since absences were only due to attendance at other job-related appointments or to illness. Thus, normal fluctuation is assumed. Finally, this study focused on teacher educators who serve in-service teachers, so the results are not appropriate for generalization to the entire group of all teacher educators.

6.4. Practical implications

In addition to potential directions for future research, the findings of this study also imply recommendations for practice. Since our results suggest that the motives behind a change of profession are related to well-being within the profession, the choice to become a teacher educator should be given more attention even before the decision to enter this profession has been made. In this context, our instrument could serve as a self-assessment tool in the recruitment of potential teacher educators, helping them reflect on why they want to enter the teacher education field. This could help bring individuals into the profession who are motivated by a positive commitment to delivering high-quality learning opportunities to teachers rather than those who already exhibit signs of emotional exhaustion as teachers.

7. Conclusion

The current study is one of the first to examine (in retrospect) the motives of teacher educators to change careers. In it, we developed a new and valid instrument to measure four different motives for becoming a teacher educator and identified which of these motives are related to teacher educators' positive perceptions of their work. In doing so, our study extends the research on teacher educators.

Disclosure statement

No potential conflict of interest was reported by the authors.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.tate.2021.103322.

References

Andreasen, J. K., Bjørndal, C. R. P., & Kovač, V. B. (2019). Being a teacher and teacher educator: The antecedents of teacher educator identity among mentor teachers. *Teaching and Teacher Education, 85*, 281–291. https://doi.org/10.1016/j.tate.2019.05.011

Anthony, G., & Ord, K. (2008). Change-of-career secondary teachers: Motivations, expectations and intentions. *Asia-Pacific Journal of Teacher Education, 36*(4), 359–376. https://doi.org/10.1080/13598660802395865

Bates, T., Swennen, A., & Jones, K. (2010). *The professional development of teacher educators*. Abingdon: Routledge.

Cochran-Smith, M., Grudnoff, L., Orland-Barak, L., & Smith, K. (2020). Educating teacher educators: International perspectives. *The New Educator, 16*(1), 5–24. https://doi.org/10.1080/1547688X.2019.1670309

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three

decades of progress. *Psychological Bulletin, 125*(2), 276–302. https://doi.org/10.1037/0033-2909.125.2.276

Dunn, T. J., Baguley, T., & Brunsden, V. (2014). From alpha to omega: A practical solution to the pervasive problem of internal consistency estimation (London, England : 1953 *British Journal of Psychology, 105*(3), 399–412. https://doi.org/10.1111/bjop.12046.

Edmond, N., & Hayler, M. (2013). On either side of the teacher: Perspectives on professionalism in education. *Journal of Education for Teaching, 39*(2), 209–221. https://doi.org/10.1080/02607476.2013.765193

Enzmann, D., & Kleiber, D. (1989). *Helfer-Leiden: Streß und Burnout in psychosozialen Berufen.* Heidelberg: Asanger.

European Commission. (2013). Supporting teacher educators for better learning outcomes. Brussels. Retrieved from http://ec.europa.eu/assets/eac/education/policy/school/doc/support-teacher-educators_en.pdf.

Furnham, A. (1986). Response bias, social desirability and dissimulation. *Personality and Individual Differences, 7*(3), 385–400. https://doi.org/10.1016/0191-8869(86)90014-0

Goodwin, A. L., Smith, L., Souto-Manning, M., Cheruvu, R., Tan, M. Y., Reed, R., et al. (2014). What should teacher educators know and Be able to do? Perspectives from practicing teacher educators. *Journal of Teacher Education, 65*(4), 284–302. https://doi.org/10.1177/0022487114535266

Guberman, A., Ulvik, M., MacPhail, A., & Oolbekkink-Marchand, H. (2020). Teacher educators' professional trajectories: Evidence from Ireland, Israel, Norway and The Netherlands. *European Journal of Teacher Education*, 1–18. https://doi.org/10.1080/02619768.2020.1793948

Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology, 60*(2), 159–170. https://doi.org/10.1037/h0076546

Hakim, C. (1989). New recruits in self-employment in the 1980's. Retrieved from *Employment Gazette, 97*, 286–297 http://eprints.lse.ac.uk/25093/.

Harmsen, R., Helms-Lorenz, M., Maulana, R., & van Veen, K. (2018). The relationship between beginning teachers' stress causes, stress responses, teaching behaviour and attrition. *Teachers and Teaching, 24*(6), 626–643. https://doi.org/10.1080/13540602.2018.1465404

Hayes, A. F., & Coutts, J. J. (2020). Use omega rather than cronbach's alpha for estimating reliability. But. *Communication Methods and Measures, 14*(1), 1–24. https://doi.org/10.1080/19312458.2020.1718629

Holme, R., Robb, A., & Berry, W. (2016). Becoming a teacher educator – the motivational factors. *European Journal of Teacher Education, 39*(3), 340–354. https://doi.org/10.1080/02619768.2016.1194391

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Kelchtermans, G., Smith, K., & Vanderlinde, R. (2018). Towards an 'international forum for teacher educator development': An agenda for research and action. *European Journal of Teacher Education, 41*(1), 120–134. https://doi.org/10.1080/02619768.2017.1372743

Kirkwood, J. (2009). Motivational factors in a push-pull theory of entrepreneurship. *Gender in Management: International Journal, 24*(5), 346–364. https://doi.org/10.1108/17542410910968805

Klusmann, U., Kunter, M., Trautwein, U., Lüdtke, O., & Baumert, J. (2008). Teachers' occupational well-being and quality of instruction: The important role of self-regulatory patterns. *Journal of Educational Psychology, 100*(3), 702–715. https://doi.org/10.1037/0022-0663.100.3.702

König, J., & Rothland, M. (2012). Motivations for choosing teaching as a career: Effects on general pedagogical knowledge during initial teacher education. *Asia-Pacific Journal of Teacher Education, 40*(3), 289–315. https://doi.org/10.1080/1359866X.2012.700045

Little, R. J. A. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association, 83*(404), 1198–1202. https://doi.org/10.1080/01621459.1988.10478722

Livingston, K. (2014). Teacher educators: Hidden professionals? *European Journal of Education, 49*(2), 218–232. https://doi.org/10.1111/ejed.12074

Lunenberg, M., Dengerink, J., & Korthagen, F. (2014). *The professional teacher educator: Roles, behaviour, and professional development of teacher educators*. Professional Learning. Rotterdam: Sense Publishers. https://doi.org/10.1007/978-94-6209-518-2.

Maslach, C., Jackson, S. E., Leiter, M. P., & Michael, P. (2010). *Maslach burnout inventory manual*. Menlo Park, CA: Mind Garden.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52*, 397–422. https://doi.org/10.1146/annurev.psych.52.1.397

Mayer, D., Mitchell, J., Santoro, N., & White, S. (2011). Teacher educators and 'accidental' careers in academe: An Australian perspective. *Journal of Education for Teaching, 37*(3), 247–260. https://doi.org/10.1080/02607476.2011.588011

McDonald, R. P. (1999). *Test theory: A unified treatment*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

McEvoy, E., Heikinaro-Johansson, P., & MacPhail, A. (2019). An exploration of the influence of professional relationships on the career pathways of physical education teacher educators. *European Physical Education Review, 25*(4), 913–928. https://doi.org/10.1177/1356336X18785106

Merz, J. (1979). *Berufszufriedenheit von lehrern: Eine empirische untersuchung. (Teachers' job satisfaction: An empirical study)*. Weinheim: Beltz: Beltz Forschungsberichte.

Montenegro Maggio, H. (2016). The professional path to become a teacher educator: The experience of Chilean teacher educators. *Professional Development in Education, 42*(4), 527–546. https://doi.org/10.1080/19415257.2015.1051664

Murray, J., & Kosnik, C. (2011). Academic work and identities in teacher education. *Journal of Education for Teaching, 37*(3), 243–246. https://doi.org/10.1080/02607476.2011.587982

Murray, J., & Male, T. (2005). Becoming a teacher educator: Evidence from the field. *Teaching and Teacher Education, 21*(2), 125–142. https://doi.org/10.1016/j.tate.2004.12.006

Muthén, L. K., & Muthén, B. O. (1998-2017). *Mplus user's guide: Eighth edition*. Retrieved from. Los Angeles, CA: Muthén & Muthén https://www.statmodel.com/download/usersguide/Mplus%20Users%20Guide%20v6.pdf.

Nájera Catalán, H. E. (2019). Reliability, population classification and weighting in multidimensional poverty measurement: A Monte Carlo study. *Social Indicators Research, 142*(3), 887–910. https://doi.org/10.1007/s11205-018-1950-z

Rhodes, S. R., & Doering, M. (1983). An integrated model of career change. *Academy of Management Review, 8*(4), 631–639. https://doi.org/10.2307/258264

Richter, E., Brunner, M., & Richter, D. (2021). Teacher educators' task perception and its relationship to professional identity and teaching practice. *Teaching and Teacher Education, 101*, 103303. https://doi.org/10.1016/j.tate.2021.103303

Rothland, M. (2013). „Riskante" Berufswahlmotive und Überzeugungen von Lehramtsstudierenden. *Erziehung Und Unterricht, 163*(1/2), 71–80.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141–166. https://doi.org/10.1146/annurev.psych.52.1.141

Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7*(2), 147–177. https://doi.org/10.1037/1082-989X.7.2.147

Schwarzer, R., Schmitz, G. S., & Tang, C. (2000). Teacher burnout in Hong Kong and Germany: A cross-cultural validation of the Maslach burnout inventory. *Anxiety, Stress & Coping, 13*(3), 309–326. https://doi.org/10.1080/10615800008549268

Segal, G., Borgia, D., & Schoenfeld, J. (2005). The motivation to become an entrepreneur. *International Journal of Entrepreneurial Behavior & Research, 11*(1), 42–57. https://doi.org/10.1108/13552550510580834

Skaalvik, E. M., & Skaalvik, S. (2011). Teacher job satisfaction and motivation to leave the teaching profession: Relations with school context, feeling of belonging, and emotional exhaustion. *Teaching and Teacher Education, 27*(6), 1029–1038. https://doi.org/10.1016/j.tate.2011.04.001

Skaalvik, E. M., & Skaalvik, S. (2015). Job satisfaction, stress and coping strategies in the teaching profession—what do teachers say? *International Education Studies, 8*(3). https://doi.org/10.5539/ies.v8n3p181

Tack, H., Valcke, M., Rots, I., Struyven, K., & Vanderlinde, R. (2018). Uncovering a hidden professional agenda for teacher educators: A mixed method study on flemish teacher educators and their professional development. *European Journal of Teacher Education, 41*(1), 86–104. https://doi.org/10.1080/02619768.2017.1393514

Tack, H., & Vanderlinde, R. (2016). Measuring teacher educators' researcherly disposition: Item development and scale construction. *Vocations and Learning, 9*(1), 43–62. https://doi.org/10.1007/s12186-016-9148-5

Tack, H., & Vanderlinde, R. (2019). Capturing the relations between teacher educators' opportunities for professional growth, work pressure, work related basic needs satisfaction, and teacher educators' researcherly disposition. *European Journal of Teacher Education, 5*(2), 1–19. https://doi.org/10.1080/02619768.2019.1628212

Vanassche, E., & Kelchtermans, G. (2016). A narrative analysis of a teacher educator's professional learning journey. *European Journal of Teacher Education, 39*(3), 355–367. https://doi.org/10.1080/02619768.2016.1187127

Watt, H. M. G., & Richardson, P. W. (2007). Motivational factors influencing teaching as a career choice: Development and validation of the FIT-choice scale. *The Journal of Experimental Education, 75*(3), 167–202. https://doi.org/10.3200/JEXE.75.3.167-202

Watt, H. M. G., Richardson, P. W., & Wilkins, K. (2014). Profiles of professional engagement and career development aspirations among USA preservice teachers. *International Journal of Educational Research, 65*, 23–40. https://doi.org/10.1016/j.ijer.2013.09.008

Weiss, H. M. (2002). Deconstructing job satisfaction. *Human Resource Management Review, 12*(2), 173–194. https://doi.org/10.1016/S1053-4822(02)00045-1

White, E. (2014). Being a teacher and a teacher educator – developing a new identity? *Professional Development in Education, 40*(3), 436–449. https://doi.org/10.1080/19415257.2013.782062

Yuan, R. (2016). Understanding higher education-based teacher educators' identities in Hong Kong: A sociocultural linguistic perspective. *Asia-Pacific Journal of Teacher Education, 44*(4), 379–400. https://doi.org/10.1080/1359866X.2015.1094779

Yuan, R., & Yang, M. (2020). Understanding university-based teacher educators' boundary crossing experiences: Voices from Hong Kong. *Teachers and Teaching, 26*(2), 193–213. https://doi.org/10.1080/13540602.2020.1777961

Zinbarg, R. E., Revelle, W., Yovel, I., & Li, W. (2005). Cronbach's α, revelle's β, and mcdonald's ωH: Their relations with each other and two alternative conceptualizations of reliability. *Psychometrika, 70*(1), 123–133. https://doi.org/10.1007/s11336-003-0974-7