

This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.

Author(s): Mankki, Ville; Heikkilä, Mirva; Kemppinen, Lauri; Metsäpelto, Riitta-Leena

Title: Teacher competencies in job advertisements for teachers

Year: 2024

Version: Published version

Copyright: ©2024 Ville Mankki, Mirva Heikkilä, Lauri Kemppinen, Riita-Leena Metsäpelto.

Rights: CC BY 4.0

Rights url: https://creativecommons.org/licenses/by/4.0/

Please cite the original version:

Mankki, V., Heikkilä, M., Kemppinen, L., & Metsäpelto, R.-L. (2024). Teacher competencies in job advertisements for teachers. Nordic Journal of Comparative and International Education, 8(3). https://doi.org/10.7577/njcie.6031

NJCIE Nordic Journal of Comparative and International Education



ISSN: 2535-4051

Vol 8, No 3 (2024)

https://doi.org/10.7577/njcie.6031

Article

Teacher competencies in job advertisements for teachers

Ville Mankki

University of Jyväskylä

Email: ville.a.mankki@jyu.fi

Mirva Heikkilä

University of Turku

Email: mirva.heikkila@utu.fi

Lauri Kemppinen

University of Turku

Email: laukem@utu.fi

Riitta-Leena Metsäpelto

University of Jyväskylä

Email: riitta-leena.metsapelto@jyu.fi

Abstract

Teaching requires a diverse range of competencies. This study investigates teacher competencies articulated in job advertisements for teaching positions in Finland. Given the global teacher recruitment challenges, particularly in rural schools, and the regional differentiation within Finland, the study also examines the variations across rural, semi-urban, and urban municipalities. Data were collected from a centralized recruitment website, resulting in 596 job advertisements for class teacher positions. A deductive qualitative content analysis was performed using the individual teacher competencies defined in the multidimensional adapted process model of teaching (Metsäpelto et al., 2022) as a framework. The findings highlight the prevalence of teacher competencies related to knowledge base of teaching and



©2024 Ville Mankki, Mirva Heikkilä, Lauri Kemppinen, Riita-Leena Metsäpelto. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), allowing third parties

to copy and redistribute the material in any medium or format and to remix, transform, and build upon the material for any purpose, even commercially, provided the original work is properly cited and states its license.

learning, social skills, and personal orientations. Notably, advertisements from rural municipalities featured fewer competencies compared to those from semi-urban and urban municipalities. By illustrating the desired teacher competencies in the field, this study provides a valuable tool for evaluating and developing teacher education goals and teacher recruitment strategies.

Keywords: teacher competencies, recruitment, job advertisements, class teachers, Finland

Introduction

Teaching is a multifaceted and demanding profession requiring a range of competencies (e.g., Baumert & Kunter, 2013; Metsäpelto et al., 2022; Smestad & Gillespie, 2020). While some competencies are universally recognized as critical for teachers, there is also variation reflecting national and cultural differences (Klassen et al., 2018). Identifying critical competencies and communicating them effectively through public-facing messages are foundational steps in recruiting teachers (Klassen et al., 2021).

One vital form of public-facing messages in recruitment are job advertisements. These written documents about specific job openings disseminated through public media channels aim to attract the most suitable candidates for vacant positions (Harper, 2012). They provide relevant information regarding employers' expectations, with regard, for example, to the qualifications, experience, skills and knowledge required for the job (Kim & Angnakoon, 2016). Consequently, analysing job advertisements has become a well-established method for understanding labour market dynamics and recruitment trends (Mahjoub & Kruyen, 2021). Furthermore, research on job advertisements has been employed to pinpoint disparities between employment requirements and educational offerings, thereby facilitating educational redesign to better equip students for future workforce demands (Kim & Angnakoon, 2016). It can also unveil differences between competencies emphasized in the literature and those sought by employers (Rios et al., 2020).

In his scoping review, Mankki (2023) identified eleven studies examining job advertisements for teaching positions across early childhood education to secondary education (K–12). These studies aimed to uncover, for example, "which attributes of teachers were seen by employers as important" (Stephenson & Carter, 2014, p. 53). While some studies focused on specific themes such as digital (Talmo et al., 2020) or language proficiency (Mackenzie, 2021), broader approaches revealed that employers frequently prioritize teachers' interpersonal and teamwork skills, sensitivity to cultural diversity, intercultural understanding (Bailey et al., 2013; Selvi, 2010), leadership skills, and alignment with the ethos of a particular educational institution, such as a strong commitment to Catholic education (Stephenson & Carter, 2014). Additionally, studies have investigated discrimination based on nationality preferences (e.g., Mackenzie, 2021; Selvi, 2010) or gender stereotyping evident in teacher advertisements (Anand, 2013).

Currently, there is no research evidence on the teacher competencies desired by employers in Finland. To

address this gap, this paper investigates teacher competencies outlined in job advertisements for class teacher positions in Finland. By applying the multidimensional adapted process model of teaching (MAP, Metsäpelto et al., 2022), it also tackles the methodological gap left by previous research, which lacked established frameworks for analyzing teacher competencies in job advertisements (Mankki, 2023). The MAP model provides a systematic and conceptually coherent framework for categorizing, comparing and understanding the multifaceted teacher competencies. The main research question guiding this study is what kind of individual teacher competencies are articulated in the job advertisements for class teacher positions? Given the global recruitment problems in rural schools (e.g., Burke & Buchanan, 2022) and the ongoing discussion in Finland surrounding the regional differentiation of education (e.g., variations in learning outcomes, declining birth rates, and their impact on education provision, particularly in rural areas; see Bernelius & Huilla, 2021), alongside the noted regional variations in teacher availability (Manner, 2023), this study also incorporates a regional perspective. Therefore, an additional research question is what differences in articulated teacher competencies can be observed between urban, semi-urban, and rural municipalities? Overall, this study contributes to the limited research on teacher recruitment and enhances the understanding of the contextual, national, and regional variations in desired teacher competencies.

Teacher competencies in the MAP model

Several models have been developed to articulate the diverse competencies needed in the teaching profession (e.g., Baumert & Kunter, 2013; Blömeke et al., 2015). As stated, the current study will adopt the MAP model (Metsäpelto et al., 2022) as a framework for categorizing teacher competences. Originating from Finland, the MAP model, which represents a collective interpretation of the contemporary evidence and prevailing educational discourses on what teachers should know and be able to do, has made a profound contribution to the refinement of teacher education within the nation: it has been instrumental in shaping admissions to and designing the curricula for initial teacher education (Metsäpelto et al., 2024), as well as guiding the professional learning of in-service teachers. Since its publication, the model has garnered recognition in the international literature, for example, when scholars have reviewed the quality of teacher education practices (Wiese et al., 2024). Although frameworks like MAP can be critiqued, simultaneously, for their complexity and for overlooking essential elements of teaching, as well as for their limited capacity to capture the diversity and mobilizability of competencies within the teaching community (Smestad & Gillespie, 2020), they still provide a systematic approach for organizing the multifaceted competencies required for effective teaching.

The MAP model (Metsäpelto et al., 2022) builds on Blömeke et al.'s (2015) teacher competence model, which distinguishes among teacher competence (effective performance of a teacher's work), situation-specific skills (perceiving, interpreting, and making decisions in teaching and learning situations), and

individual teacher competencies. These underlying yet evolving individual teacher competencies defined in the MAP model which enable teachers to act professionally and effectively, are used in this study. These competencies, including 1) knowledge base for teaching and learning, 2) cognitive thinking skills, 3) social skills, 4) personal orientations, and 5) professional well-being, are illustrated in Table 1. Notably, the first two competencies are classified as cognitive competencies, while the latter three are categorized as noncognitive competencies. Both cognitive and non-cognitive competencies are acknowledged to be influential in achieving success in the teaching profession (e.g., Madni et al., 2015).

Table 1. Individual competencies in the MAP model (Metsäpelto et al., 2022)

Individual Competencies in the MAP model	Description
1 Knowledge base of teaching and learning	
Content knowledge	Knowledge related to the particular subject, such as facts, concepts, theories and key phenomena
Pedagogical knowledge	Knowledge of pedagogical principles and strategies that extend across different subjects, strategies for classroom management and the factors that regulate learning
Pedagogical content knowledge	Knowledge of combining subject content with teaching, e.g., effective instructional strategies for teaching the subject and integrating technology into subject-specific teaching
Practical knowledge	Knowledge gained from (reflecting) practical teaching experiences, often referred to as the "wisdom of practice"
Contextual knowledge	Knowledge of the contextual factors influencing the educational system and schools
2 Cognitive thinking skills	
Higher order thinking skills	Interpretation, analysis, and application of information
Critical thinking	Examination of ideas, thoughts, and arguments, and employment of reasoning to solve problems
Creativity	Generation of original or innovative ideas and openness to others' insights to assess and enhance one's own ideas
Communication,	Skillful and convincing articulation of thoughts and ideas, and

argumentation, and reasoning	construction of persuasive arguments
Metacognition	Understanding one's own cognition and the ability to regulate processes, such as planning, monitoring, and evaluating learning
3 Social skills	
Relational skills	Ability to actively listen, take and share turns, seek assistance when needed, and promote collaboration and teamwork
Emotional competency	Ability to perceive, understand, regulate, and express emotions
Diversity competency	Ability to respond to diversity by advocating for each child's dignity and being dedicated to equal and impartial treatment
Intercultural competency and interaction	Awareness of the cultural context and ability to navigate sensitively in multicultural settings
4 Personal orientations	
Personal dispositions	Consistent patterns of thinking, feeling, and behaving in diverse situations, such as friendliness or a strong sense responsibility.
Self-conceptions	Beliefs and perceptions about oneself across various domains of (professional) life, such as teacher self-efficacy
Professional beliefs, values, and ethics	Beliefs about the nature and concept of learning, as well as personal values and ethical standards associated with teaching
Motivational orientation	Interest and dedication to the teaching profession and a commitment to ongoing professional development
Professional identity	Dynamic process of self-understanding as a professional, involving active participation in identity negotiation
5 Professional well-being	
Occupational well-being	Satisfaction within the teaching profession, accompanied by a sense of vigor and profound engagement in one's work
Stress management strategies	Ability to manage the demands and workload by leveraging both personal and collective resources
Teacher resilience	Ability to overcome stress and recover from challenges.

The MAP model has been examined in the Finnish context by analyzing how its outlined competencies are

represented in the objectives of teacher education curricula (Metsäpelto et al., 2021). Through an analysis of the curriculum texts for class teacher education programs at two universities, the authors observed that most learning objectives focused on developing a knowledge base for teaching and learning and enhancing cognitive skills. In contrast, social skills and personal orientations were notably less emphasized, and there were few, if any, references to competencies related to professional well-being.

Method

Research context

In Finland, teaching is a highly respected profession, and teachers enjoy substantial autonomy compared to many other countries, as reflected in the absence of standardized testing and school inspections (Mikkilä-Erdmann et al., 2019). The status is exemplified by the strong competition for study places in teacher education programs, particularly for those aiming to become class teachers and special education teachers. To qualify as a class teacher, candidates must complete a five-year master's degree in education, which formally certifies them to teach grades 1-6 (ages 7-12) in comprehensive schools. These programs include courses in educational science, subject-specific didactics, and practical training in university-affiliated teacher training schools. Contrary to the notion often suggested in international literature that only top academic performers are accepted into teacher education in Finland, students in the class teacher program generally demonstrate average academic performance (Vilppu et al., 2022).

Municipalities are responsible for organizing basic education (Basic Education Act, 1998) and, thus, managing teacher recruitment. Job advertisements for class teaching positions must include specific regulated elements, such as a reference to the qualifications required for class teachers (Decree on Qualification Requirements for Teaching Staff 1998). The advertisements should also include information on mandatory criminal background checks (Act on Checking the Criminal Background of Persons Working with Children, 2002) and the requirement for medical certifications (Act on Civil Servants in Local Government, 2003). However, municipalities retain significant discretion in shaping the content and scope of their job advertisements (Hirvonen & Mäkinen, 2006).

Data collection

Methodologically, the study is grounded in document analysis, which entails a systematic procedure for reviewing diverse pre-existing organizational and institutional documents containing text and images that were not originally created for research purposes (Bowen, 2009). This approach offers advantages for qualitative researchers, addressing concerns regarding resources needed for data collection, as well as ethical and stability issues associated with the data (Morgan, 2022). However, to ensure the credibility of

the data, it is imperative to establish a justified framework for sampling by defining clear criteria for selecting source and documents (Kim & Angnakoon, 2016).

To reduce the likelihood of sample bias associated with the source, the job advertisements were collected from a centralized recruitment website (https://www.kuntarekry.fi/en/), where nearly 80 percent of the municipalities in Finland publish all their open vacancies (A.-M. Mourukoski, personal communication, January 11, 2022). The website mentioned serves as the main platform for recruiting teachers for primary and secondary education in Finland. Furthermore, job postings from Helsinki and Vantaa, part of the Finnish metropolitan area, were incorporated into the dataset. These municipalities rank among the ten largest in Finland but choose to advertise their job openings on their respective recruitment website.

The advertisements were collected over six-month period (between 1st January and 30th June 2022) during which vacancies starting for the following academic year 2022–2023 (commencing in August) were announced. New advertisements were screened on the final working day of each week, typically Fridays. Advertisements written in Finnish announcing permanent class teacher positions were saved as PDFs. The majority of the application deadlines fell either in March or April, indicating seasonal fluctuation in teacher recruitment, with recruitment activities typically concentrated in specific months. This observation suggests that the timing of the sampling period was successful, as the busiest recruitment season, measured by the number of application deadlines, coincided with the midpoint of the sampling period.

The collected dataset comprised a total of 596 class teacher job advertisements. The dataset can be deemed extensive given that in prior research focusing on job advertisements within the educational sector, the average sample size was 382 (Mankki, 2023). Moreover, it exceeds typical sample sizes observed in reviews of job advertisement research across other fields (Harper, 2012; Kim & Angnakoon, 2016). According to Statistics Finland's (2024) municipal grouping, which classifies municipalities based on urban settlement proportions and population of the largest urban settlement, the advertisements were distributed as follows: 434 originated from urban municipalities, 92 from semi-urban municipalities, and 70 from rural municipalities.

Data analysis

While document analysis typically leans towards inductive and data-driven forms of qualitative analysis (Bowen, 2009; Morgan, 2022), this study opted for a theory-driven and deductive approach, wherein the researcher progresses from theory to data or from a more general level to a more concrete level (Graneheim et al., 2017). Deductive qualitative content analysis involves using predetermined categories derived from existing theory or prior research findings (Elo & Kyngäs, 2008). In this study, the individual competencies from the MAP model (Metsäpelto et al., 2022) are adopted. Moreover, the analysis is

predominantly manifest rather than latent, meaning that it stays closely tied to the text and concentrates on what is actually visible rather than searching for underlying meanings (Bengtsson, 2016). However, some latent features and an interpretive approach were inevitably required in the analysis due to the inherent ambiguity of the competence descriptions in the MAP framework and data, and the occasional conciseness of the advertisements.

The analysis was conducted by the first author, beginning with comprehensive familiarization with the data through multiple readings of the job advertisements. The advertisements were reviewed, meaning units containing insights related to individual competencies outlined in the MAP model were sought and coded in Nvivo. Coding rules were established based on the definitions of the competencies and explicit and concise exemplifications (i.e. anchor samples) were selected for each category to enhance the definition clarity and trustworthiness of the study. Given the interpretive demands outlined above, the coding rules were progressively refined through comparisons of data and the MAP model, particularly to enhance comprehension of borderline cases assigned to specific competencies. To ensure consistency, an additional round of coding was conducted following the initial round. This facilitated the identification and rectification of any inconsistencies in the allocation of expressions to different categories. Moreover, it enabled a critical evaluation of whether expressions could be placed into categories that remained empty during the initial round.

Requirements related to qualifications or specific studies were excluded from coding. Furthermore, common descriptions such as "we are seeking a skilled teacher", "we hope for good professional competence from you", and "versatility in skills is valued", were not coded, due to their general nature, which did not precisely illustrate the individual competencies sought in the advertisements. Moreover, expressions that primarily discussed the school without directly referring to applicant requirements, such as "at our school, important aspects include learning basic life skills and knowledge, learning skills, acknowledging and utilizing diversity as a strength, as well as collaboration and interpersonal skills", were not included in the analysis.

Often, the meaning units were concise, resulting in multiple units being encompassed within a single sentence. Additionally, the selection of specific wording influenced categorization. For example, "we also value the ability and willingness to teach music for grades 3-6" was categorized under knowledge base of teaching and learning (as the ability to teach a certain subject or content refers to pedagogical content knowledge) and personal orientations (since willingness refers to motivational orientation).

Furthermore, quantification was conducted in the analysis. Quantification can be beneficial for providing a foundational overview of the reviewed documents (Bowen, 2009). In this study, quantification served to

illustrate the prominence given to individual competencies in job advertisements. Although job advertisements can present challenges for comparative analysis (Harper, 2012), quantification was leveraged to compare advertisements and facilitate the identification of differences among urban, semi-urban and rural municipalities.

Results

The competencies identified per job advertisement ranged from zero to five, with advertisements most typically including three competencies (M = 2.12). The knowledge base of teaching and learning, social skills, and personal orientations were prevalent across the data. Conversely, competencies related to cognitive thinking skills and professional well-being were notably scarce in the advertisements. The overview of the proportion of advertisements encompassing individual teacher competencies defined in the MAP model is provided in Table 2. The table shows, for example, that 67.4 percent of all advertisements included competencies related to social skills.

Of the advertisements, 78 (13.1%) did not contain any individual competencies aligned with the framework of this study. These ads often solely listed eligibility requirements, exemplified by statements such as: "The eligibility requirements for the position are determined in accordance with the regulations on the qualifications of teaching staff (1998/986)". However, when comparing differences across municipalities, it became apparent that while one in ten advertisements in urban (n = 42, 9.6%) and semi-urban municipalities (n = 11, 11.9%) did not include any competencies linked to the framework of this study, the proportion of such advertisements in rural municipalities was nearly one-third (n = 22, 31.4%). Moreover, the advertisements from rural municipalities also exhibited a lower mean in competencies (M = 1.77) compared to urban (M = 2.15) or semi-urban (M = 2.24) municipalities. The proportions in table 2 illustrate that a significantly smaller percentage of advertisements from rural municipalities included requirements related specifically to the knowledge base of teaching and learning, and social skills, compared to those from semi-urban and urban municipalities.

In the following, a comprehensive description of each competency will be provided, accompanied by authentic excerpts from the data to illustrate and enhance the trustworthiness of the findings. These excerpts were translated from Finnish into English by the first author during the manuscript preparation. Throughout the findings, codes indicating urban (U), semi-urban (S), and rural (R) municipalities have been included with each direct excerpt to clearly support and maintain the distinction between the different types of municipalities.

Table 2. The proportion of class teacher job advertisements encompassing individual teacher competencies

	Knowledge base of teaching and learning		Cognitive thinking skills		Social skills		Personal orientations		Professional well-being	
	n	%	n	%	n	%	n	%	n	%
All advertisements (n = 596)	413	69.2%	42	7.0%	402	67.4%	366	61.4%	18	3.0%
Urban municipalities (n = 434)	310	71.4%	26	5.9%	307	70.7%	265	61.0%	15	3.4%
Semi-urban municipalities (n = 92)	66	71.7%	8	8.7%	59	64.1%	60	65.2%	3	3.2%
Rural municipalities (n = 70)	37	52.8%	8	11.4%	36	51.4%	41	58.5%	0	0.0%

Note. Since the advertisements most typically included three competencies, the sums of the rows exceed 100%.

Knowledge-base of teaching and learning

The most prevalent competencies articulated in the advertisements were those related to the knowledge-base for teaching and learning. Pedagogical Content Knowledge (PCK), recognized as a cornerstone of the teaching profession, plays a pivotal role in how educators translate their understanding of subject matter into effective instruction. This connection between content and teaching was delineated in various extents within the advertisements. At its broadest, it was manifested in statements highlighting the multidisciplinary inherent of a class teacher's teaching responsibilities, such as "we value the ability to teach all the subjects taught in primary school" (U). Additionally, certain advertisements provided more precise contextualization or specifications regarding the implementation of multi-subject teaching: "we expect you to be capable of teaching all subjects taught in first and second grade in primary education in a versatile and activity-based manner" (S).

More targeted expressions linked teaching and specific subjects. It was common in the advertisements to specify, for instance, that "the selected candidate is expected to have the skill to teach music, physical education, and crafts" (U). Often, these expressions were associated with expertise in art and physical education subjects (i.e. visual arts, music, crafts, physical education or home economics) or languages. Occasionally, rather than specifying it on a subject-by-subject basis, the teaching experience was linked to the aforementioned subject groups: "it is considered an advantage for the applicant to have skills in art and physical education subjects" (S), or "we require [...] language pedagogical expertise" (U). The most precise expressions focused teaching expertise even more narrowly on specific content areas, such as band activities and group music performance, or programming. This was most commonly observed in crafts, where expertise in either hard materials (technical work) or soft materials (textile work) were desired.

The MAP model also considers the integration of digital technology into pedagogy as an aspect of teacher knowledge. In this study, it was common for job advertisements to set requirements or preferences for technological proficiency in teaching. For instance, ads might express this as "we value expertise in digital pedagogy" (U), or "it is considered advantageous for the applicant to have the skill and pedagogical knowledge to diversely utilize information and communication technologies [ICT] in teaching" (S). However, technological knowledge was often mentioned beyond just instructional use, without direct connection to teaching. For example, applicants were often expected to have "versatile" (U), "up-to-date" (U), or "sufficient" (S) ICT skills. Expressions, such as "we also require proficiency in the use of ICT for teaching and administrative purposes" (R), emphasize the requirements related to digital knowledge that extends beyond teaching. The following detailed specification reflects technological skills related to social media and communication in addition to learning purposes: "we value modern ICT skills, for example, proficiency in Google and O365 environments, utilizing Instagram for communication, and skills in video editing" (U).

Pedagogical knowledge refers to proficiency in pedagogical principles and strategies that extend across different subjects. In this study, pedagogical knowledge included expressions related to pedagogy without specific connection to content or subjects, such as "the position requires good pedagogical expertise" (U) and "the selected candidate is expected to have versatile pedagogical expertise in accordance with the new curriculum" (R). The mastery of diverse methods ("we require you to master diverse, modern teaching and assessment methods" [S]) and "ability to work in various learning environments" (R) were also emphasized in many advertisements. Also, classroom management was often addressed, but usually quite succinctly (e.g., "we require from the applicant [...] good group management skills" [R]). Occasionally, however, knowledge of classroom management was described in more concrete terms: "they [students] also want teachers to have the skill and courage to intervene if someone disrupts the class or behaves poorly" (U).

Content knowledge, which refers to knowledge specific to a particular subject, such as facts, concepts, and theories, was notably lacking in the advertisements. This category encompassed statements related to proficiency in a certain language without explicit connection to teaching, like "proficiency in Russian resembling a native speaker is preferred" (U). Additionally, phrases such as "we appreciate diverse knowledge of children's culture" (U), and "STEAM proficiency is considered advantageous for applicants" (U) were classified under content knowledge. However, with more flexible interpretation, these examples could have also been associated with teaching and thus placed within the realm of pedagogical content knowledge. This merely highlights the limited emphasis placed on the comprehension of the structure of the subject knowledge in job postings for class teachers.

Practical knowledge, in this study, included statements related to experience and evidence of practical actions in schools and classroom. Generally, advertisements valued, for example, "previous experience in the role of a class teacher" (U), "diverse teaching experience with different age groups" (R), and "experience working with children and young people" (U). More specific requirements or preferences for prior experience were linked to various aspects of a teacher's work.

Firstly, advertisements set expectations for experience in collaboration (e.g. "experience in teamwork" [R] or "experience in [...] multiprofessional teamwork" [U]). Regarding collaboration, specific characteristics of work communities might have been detailed, as illustrated in the following extracts: "experience in working in a large comprehensive school is considered an advantage" (U) and "we value [...] experience working in a bilingual (Finnish-Swedish) work community" (U). The most common form of collaboration highlighted in the advertisements was the experience in co-teaching or other forms of teacher collaboration and joint planning: "applicants are required to have experience in co-teaching" (U). A key aspect related to collaboration in many advertisements was experience in flexible teaching arrangements requiring collaboration: "experience in working in pairs, grade-independent teaching, mixed-age groups, and other

flexible teaching arrangements is considered an advantage" (U).

Secondly, the advertisements set expectations for experience in inclusive (e.g., "we value experience in inclusive education" [R]) and multicultural schools (e.g., "experience in multicultural schools is considered advantageous" [U]). From the perspective of working in an inclusive school, the advertisements emphasized for example, experience in "working with students needing special support (learning difficulties and behavioral challenges)" (U) or "teaching students at different levels of three-tiered support" (U). Regarding experience working in multicultural schools, the job advertisements required or preferred experience in, for example, "teaching immigrant students" (U), "teaching multilingual students and interacting with their families" (U), or "preparatory education for basic education" (U).

Thirdly, the advertisements set expectations for experience in teaching specific grade levels or classes. The majority of these requirements required experience in teaching first and second grades in primary education (e.g. "we place particular value on long-term and continuous experience in first and second grade teaching" (S). Experience in multi-grade instruction, where a teacher instructs different grades in the same classroom, was also regularly considered advantageous as well as previous teaching experience in special classes that emphasize certain subjects (e.g. music or mathematics) or foreign language.

Fourthly, expectations were set regarding teaching experience related to specific content areas. In addition to individual subjects and subject groups (languages, art and physical education subjects and STEAM subjects), these expectations were related, for example, to environmental education ("applicants are expected to have experience in environmental education" [S]) or educational robotics ("experience in teaching robotics [VEX-IQ] and related competition activities is considered an advantage for applicants" [U]). Other expressions in the advertisements included experiences with a certain approach to teaching (e.g. inquiry-based learning, phenomenon-based learning, and active learning), developmental projects, digital learning platforms, distance learning, and promoting student council activities.

Contextual knowledge refers to understanding the sociocultural context in which the teaching occurs. This was discerned from statements addressing familiarity with the educational sector locally and nationally, such as "good knowledge of the field and its development is considered an advantage" (U), and the principles adhered to by Finnish schools, for instance, "we value [...] practical insights into the strengthening of the local school policy" (U). However, the contextual knowledge in the advertisements mainly revolved around understanding the framework that the curriculum provides for education in Finland ("we value familiarity with the guiding obligations, values, and conception of learning of the new curriculum" [R]) as well as the support for learning in Finnish schools ("we require that you are familiar with the structures and practices of the three-tiered support system" [U]). In many advertisements, knowledge

of the support system was demonstrated through familiarity with support-related pedagogical documents: "it is advantageous for the applicant [...] to be able to draft pedagogical documents" (U).

Cognitive thinking skills

In terms of cognitive thinking skills, the job advertisements primarily focused on expression related to creativity. For example, "everyday creativity" (U) and "implementing creative pedagogical solutions" (U) were appreciated. Additionally, expressions like "a boldly innovative teacher" (U), "a teacher rich in ideas" (U), and "a teacher with good imagination" (U), were all associated with creativity. Other cognitive abilities found in the advertisements were linked to higher-order thinking skills, underscoring the significance of rapid learning ("we consider an advantage [...] the ability to grasp new concepts swiftly" [S]), and critical multiperspective thinking ("the applicant possesses the ability to think from various angles" [U]).

Social skills

Social skills were mentioned in the advertisement as such (e.g. "we are seeking a teacher with [...] good social skills" (U)]. However, more commonly, the requirements for social skills were directed towards relational skills, especially from the perspective of collaborative abilities, often combining these in the following manner: "we expect excellent relational and collaboration skills" (U). Desired collaboration skills were delineated on three perspectives. Firstly, collaboration skills were associated with collaboration not only within various teacher teams and between classroom teachers and special education teachers, but also among the entire staff: "we hope you have the ability to work flexibly in collaboration with classroom teachers, special education teachers, school assistants, and other staff" (U). Secondly, collaboration skills were linked to cooperation with homes and guardians: "applicants are expected to have the ability to engage in constructive cooperation between home and school" (U). Thirdly, collaboration skills were connected to collaboration with other unspecified "external partners and stakeholders" (R).

Teachers' social skills encompass responding to diversity within the school community. In the advertisements, diversity competency mainly consisted of requirements related to having a positive attitude towards diversity and respectfully interacting with students of diverse characteristics and ages: "we hope the teacher has the ability to encounter diversity while respecting all types of learners" (U). Giving individual attention to students (e.g., "the position requires [...] the ability to consider the student as an individual" [R]) and identifying and supporting their individual strengths (e.g., "you recognize the strengths of the student and know how to reinforce them" [U]) were also considered as important diversity competencies, as well as promotion of student participation (e.g. "we also value giving students genuine opportunities to participate and influence" [U]).

Advertisements rarely set explicit requirements for teachers' intercultural competence and interaction. Occasionally, it was expected that teachers have "good skills to work in a multicultural school" (S) or "strong expertise in the everyday life of a multicultural school" (U) without further defining the required competencies. Additionally, demands for teachers' language awareness posed by a multilingual work environment were highlighted in some ads: "we are seeking [...] an expert familiar with multiculturalism and language awareness" (U). Requirements for teachers' emotional competencies, such as the ability to perceive, understand, regulate, and express emotions, were not discernible in the advertisements.

Personal orientations

Personal orientations were primarily built around motivational orientations, but also personal dispositions and professional beliefs, values and ethics were recognized in the advertisements. Motivational orientations refer to the interest and dedication towards the teaching profession. Teachers who are "dedicated", "committed" and "excited about their work" (U) were frequently sought. The ads referred to intrinsic value i.e. that person enjoys the basic features of the profession, such as working with children ("you enjoy working with children" [R]) or teaching a wide range of primary school subjects ("we appreciate the desire to teach as many primary school subjects as possible" [U]). However, these motivations were often specified in job ads, focusing on desires like teaching specific grade levels ("we hope for applicants who are willing to work in first and second grade in primary education" [S]), teaching particular subjects to other grades as well ("additionally, we require willingness to teach music" [U]), and a desire to work in coteaching arrangements ("we are seeking a classroom teacher who is eager to implement co-teaching" [U]).

Motivational orientations also encompass interest and dedication to professional development. Some ads highlighted a positive attitude towards personal progress: "you find your work meaningful and want to develop within it" [U]. However, a larger portion of the ads focused on requirements for developing teaching and community generally. Development requirements was linked not only to improving teaching in general ("applicants are expected to demonstrate genuine commitment to the improvement of teaching" [U]) but also to specific contexts ("willingness to develop in first and second grade teaching in primary education is considered an advantage [U]), subjects ("we consider advantageous [...] a desire to improve the teaching of physical education in the school" [U]) or themes ("we expect a positive attitude towards versatile development of ICT usage in teaching" [R]). From a community perspective, development requirements were associated with aspects like operational culture, collaboration, interaction, and communality: "We are looking for [...] a burning enthusiasm to develop a functional, participatory, and dialogical culture of collaborative learning in our school" (S).

Personal dispositions refer to an individual's inherent patterns of thinking, feeling, and behaving across various situations and over time. Job advertisements outlined a range of required or preferred personal

traits that encapsulated the inherent tendencies of teachers. Firstly, the ads addressed characteristics related to positivity, such as being cheerful, lively, enthusiastic, fun, humorous, and friendly. Secondly, they emphasized the importance of the teacher's activity and initiative. Thirdly, flexibility was highlighted: "we value a flexible approach to work so that everyday life in our small community runs smoothly" (U). Fourthly, the ads stressed the need for teachers to take responsibility and act responsibly: "we require [...] responsibility to follow through on tasks" (U). Other personal dispositions mentioned less frequently included attributes such as ambition, high work ethic, and being solution-oriented.

Professional beliefs included expressions linked to desired conception of learning. Key requirements for the conception of learning emphasized its positivity, holistic approach, and modernity: "we hope to find a teacher who has adopted a modern learning conception" (U). Values and ethics were tied with commitment to values of the school or city: "applicant must align with our school's values, which include respectful interaction and fostering a thriving and safe community" (U). While values were specified in the previous extracts, it was more typical to generally state the requirement to align with the unspecified values of the school and conduct oneself accordingly: "we expect the successful candidate to commit to the values of the school" (U). Values and ethics also included expressions in which teachers were expected to value or recognize something as important: "the selected classroom teacher understands the importance of structuring [...] and group cohesion for students' learning and well-being, and for them, the joy of children's learning and positive pedagogy is particularly meaningful" (U).

Requirements related to self-conception or professional identity were not identified in the advertisements.

Professional well-being

References to professional well-being were scarce and remained rather general, lacking specific mentions of stress management strategies or resilience. Requirements included, for example, "well-being-oriented approach to work" (U) or "ability to act as well-being coordinator in our school" (U). When a slightly more interpretative approach was undertaken, demands posed for the ability to foster a positive work environment, such as "we hope for a teacher who contributes to a positive work atmosphere with their own efforts" (U) were also considered indicative of abilities related to professional well-being.

Discussion

This study aimed to explore the individual teacher competencies outlined in job advertisements for class teacher positions in Finland. By employing the MAP model (Metsäpelto et al., 2022) the findings highlighted the prevalence of individual competencies related to knowledge base of teaching and learning, social skills, and personal orientations in these job advertisements. The findings resonated with similar competencies

identified in prior research on teacher job advertisements concerning knowledge related to digital skills (Talmo et al., 2020), social skills including intercultural understanding (Bailey et al., 2013; Selvi, 2010) and personal orientations, such commitment and values (Stephenson & Carter, 2014). However, the adoption of MAP model as a framework for theory-driven analysis significantly facilitated a more structured and deductive approach to understanding the requirements and preferences set forth for teacher competencies by employers compared to the previous studies. In contrast to teacher education curricula, where social skills and personal orientations received little attention (Metsäpelto et al., 2021), these competencies appeared prominently in job advertisements. Meanwhile, cognitive skills—central in teacher education curricula—were notably underrepresented in the job advertisements. Thus, despite some shared elements (such as the emphasis on a knowledge base for teaching and learning and the minimal focus on professional well-being), different aspects of teacher expertise seem to be prioritized in teacher recruitment compared to the learning objectives of teacher education programs.

The prominence of non-cognitive competencies such as social skills and personal orientations alongside the knowledge base in job advertisements can be interpreted as reflecting the adoption of values-based recruitment strategies. These strategies, which prioritize non-cognitive competencies, have been implemented in various professional fields outside of education, including public service and healthcare professions (Klassen et al., 2021). Values-based recruitment strategies are rooted in employee selection theory, which emphasizes the importance of fit between individuals and their environments, such as organizations and occupations (Darrow & Behrend, 2017). These strategies involve tailoring the recruitment process to attract individuals whose values and goals align with those of the organization and incorporating these core values into the recruitment process starting from the attraction stage, where values are communicated to applicants through job advertisements. There are several benefits associated with values-based recruitment strategies in terms of fostering long-term commitment and satisfaction among employees. For instance, De Cooman et al. (2009) found that teachers who perceived congruence between their values and those of their schools were less likely to feel frustration and leave the profession.

An inevitable question arising from the findings is why certain individual teacher competencies, which are recognized as important in the literature, were notably scarce in the job advertisements. Naturally, the fact that cognitive thinking skills, for example, did not dominate the advertisements can be viewed positively, as teaching necessitates a diverse range of competencies beyond purely cognitive abilities, and evidence supporting a strong relationship between general academic abilities and teacher effectiveness is lacking (Bardach & Klassen, 2020). From the perspective of non-cognitive competencies, a study by Klassen et al. (2018) highlighted that educational professionals in different cultures, including Finland, consistently judged resilience as one of the most important non-cognitive competencies for effective teaching. Still, resilience, categorized as a part of professional well-being in the MAP model (Metsäpelto et al., 2022), was

not identified in this study at all. What could explain the disparities between these findings and earlier literature?

One possible explanation is that job advertisement research has the ability to reveal disparities between the skills emphasized in previous literature and those sought by employers (Rios et al., 2020). On the other hand, it's also possible that while educational leaders recruiting teachers may indeed value resilience, or metacognition, articulating them in job advertisements can be challenging or unconventional. These competencies may not conform to the language typically used in such ads or may conflict with the nature of the advertisements. It is crucial to acknowledge that job postings serve not only to recruit personnel but also to market the institution. Consequently, the language employed may incorporate marketing-related perspectives that reflect a desired future state rather than the current reality (e.g., Harper, 2012). Therefore, highlighting competencies related to well-being in job advertisements, might easily be associated with challenges in the job or work environment, which could conflict with the goal of portraying the positions in a positive light. Alternatively, evaluating these competencies during the recruitment process poses its own challenges, which could explain why they are often omitted. This could especially hold true for internal, subjective, and dynamic processes within individuals, such as self-conception or professional identity.

Another intriguing question arises from the observation regarding the fewer requirements related to teacher competencies in rural municipalities compared to urban and semi-urban municipalities. This observation can be attributed to at least three potential factors. Firstly, it's possible that in rural municipalities, where job responsibilities may not be as specialized, recruitment tasks are carried out by individuals such as principals or teachers alongside their regular duties. Consequently, there may be less time and resources available to dedicate to recruitment efforts, including writing job advertisements. This could result in less detailed and specific advertisements compared to those in urban and semi-urban municipalities. Secondly, there may be a belief that overly detailed job postings could deter potential applicants. Therefore, in rural areas where there are more challenges with the availability of qualified teachers (e.g., Bernelius & Huilla, 2021; Manner, 2023), imposing overly strict requirements for individual teacher competencies may be perceived as risky, leading to job advertisements being formulated with lighter requirements. Thirdly, it is also possible that the actual demands for the profession are more versatile outside the rural municipalities, for example, due to the greater diversity of students, and the advertisements simply reflect this difference.

The theoretical implications of this paper are intertwined with the development of the teacher competency frameworks, particularly the MAP model (Metsäpelto et al., 2022) adopted in this study. The observations made in the analysis advocate for certain updates to the model, such as incorporating established teacher

knowledge extensions, like technological knowledge (TPACK, Mishra & Koehler, 2006) more prominently and explicitly into the model as its own domain of teacher knowledge rather than incorporating it into Pedagogical Content Knowledge. However, when developing these frameworks, it is also crucial to consider the extent to which teachers within a school need the same competencies, or whether it would be more beneficial to emphasize the diversity of competencies within the teaching community, allowing them to be mobilized as needed (Smestad & Gillespie, 2020). The practical implications of the results are related to the development of teacher education and recruitment strategies. The findings enable the evaluation of teacher education goals and content from the perspective of employers in the field. The results can help identify potential mismatches and thus promote the development of both initial and continuing teacher education and strengthen the connection between teacher education and schools. From the perspective of developing recruitment strategies, the research findings are useful, for instance, for employers when assessing their own teacher job advertisements.

While the study aimed to address the methodological shortcomings observed in earlier research, for example, by collecting a more extensive dataset than in average job advertisement research (see Harper, 2012; Kim & Angnakoon, 2016; Mankki, 2023), and by carefully acknowledging the seasonal variation in teacher recruitment, it still had several limitations. We focused solely on Finnish job advertisements, although cross-national comparisons would have been fruitful to illustrate the variation in teacher competencies associated with national and cultural contexts. The absence of a theory-driven approach in previous teacher job advertisement studies led to the inclusion of the MAP model as a framework for this study. However, the use of alternative competency models (e.g., Baumert & Kunter, 2013) or frameworks for non-cognitive competencies identified across cultures (Klassen et al., 2018) would have been justified for a deductive approach and would likely lead to different results. Additionally, incorporating further inductive analysis might have added nuance to the findings. The collected advertisements were unevenly distributed across various municipal categories: the vast majority originated from urban municipalities. This, while reflecting the distribution of teacher recruitment in Finland, may have distorted the examination of differences.

Further investigation is required to gain better understanding about teacher recruitment and associated trends. With the United Nations Educational, Scientific and Cultural Organization (2024) projecting a need to recruit 44 million new teachers globally by 2030 to meet educational targets for primary and secondary education, there exists a need to clarify and comprehensively understand what individual teacher competencies are valued among employers in different cultures, regions (e.g. rural versus urban areas) and sectors (e.g. private versus public sector). For this purpose, the analysis of job advertisements serves as a valuable tool, especially when integrated with other research methods. In future research, it could be valuable to explore the perspectives of individuals who have drafted teacher job advertisements, using

their original ads as prompts in interviews. This approach may offer deeper insights into the reasoning behind the structure of these advertisements and the factors that influence their content. Overall, it is crucial to see educational researchers collaborating with education organizations and employers to develop high-quality recruitment strategies, which include up-to-date, justified, and relevant job advertisements in terms of competency requirements. Additionally, certain expression from the data, such as "burning enthusiasm", may reflect the subjectification of work, which requires employees to be deeply passionate about their work (Korhonen et al., 2023). This underscores the need for further investigation into the subjectification of teachers' work and its manifestation in recruitment practices.

References

- Act on Checking the Criminal Background of Persons Working with Children. (2002). *Act on Checking the Criminal Background of Persons Working with Children 504/2002* (amendments up to 926/2012 included). FINLEX. https://www.finlex.fi/sv/laki/kaannokset/2002/en20020504 20120926.pdf
- Act on Civil Servants in Local Government. (2003). *Laki kunnan ja hyvinvointialueen viranhaltijasta 304/2003* (amendments up to 405/2023 included). FINLEX. https://www.finlex.fi/fi/laki/smur/2003/20030304
- Anand, R. (2013). Gender stereotyping in Indian recruitment advertisements: A content analysis. *International Journal of Business Governance and Ethics*, 8(4), 306–322. https://doi.org/10.1504/IJBGE.2013.059161
- Bailey, C. L., Tanner, M. W., Henrichsen, L. E., & Dewey, D. P. (2013). The knowledge, experience, skills, and characteristics TESOL employers seek in job candidates. *TESOL Journal*, *4*(4), 772–784. https://doi.org/10.1002/tesj.110
- Bardach, L., & Klassen, R. M. (2020). Smart teachers, successful students? A systematic review of the literature on teachers' cognitive abilities and teacher effectiveness. *Educational Research Review*, 30. https://doi.org/10.1016/j.edurev.2020.100312
- Basic Education Act. (1998). *Basic Education Act 628/1998* (amendments up to 1136/2010 included). FINLEX. https://www.finlex.fi/fi/laki/kaannokset/1998/en19980628.pdf
- Baumert, J., & Kunter, M. (2013). The COACTIV model of teachers' professional competence. In M. Kunter, J. Baumert, W. Blum, U. Klusmann, S. Krauss, & M. Neubrand (Eds.), *Cognitive activation in the mathematics classroom and professional competence of teachers: Results from the COACTIV Project* (pp. 25–48). Springer.
- Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus open*, 2, 8–14. https://doi.org/10.1016/j.npls.2016.01.001
- Bernelius, V., & Huilla, H. (2021). *Koulutuksellinen tasa-arvo, alueellinen ja sosiaalinen eriytyminen ja myönteisen erityiskohtelun mahdollisuudet* [Educational equity, social and spatial segregation and opportunities for targeted support]. Finnish Government. http://urn.fi/URN:ISBN:978-952-383-761-4
- Blömeke, S., Gustafsson, J., & Shavelson, R. (2015). Beyond dichotomies: Competence viewed as a continuum. *Zeitschrift für Psychologie, 223*, 3–13. https://doi.org/10.1027/2151-2604/a000194
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative research journal*, *9*(2), 27–40. https://doi.org/10.3316/QRJ0902027
- Burke, P. F., & Buchanan, J. (2022). What attracts teachers to rural and remote schools? Incentivising teachers' employment choices in New South Wales. *Australian Journal of Education*, *66*(2), 115–139. https://doi.org/10.1177/00049441211066357

- Darrow, J. B., & Behrend, T. S. (2017). Person-environment fit is a formative construct. *Journal of Vocational Behavior*, 103, 117–131. https://doi.org/10.1016/j.jvb.2017.08.007
- Decree on Qualification Requirements for Teaching Staff. (1998). *Asetus opetustoimen henkilöstön kelpoisuusvaatimuksista 198/986.* FINLEX. https://www.finlex.fi/fi/laki/ajantasa/1998/19980986
- De Cooman, R., De Gieter, S., Pepermans, R., Hermans, S., Du Bois, C., Caers, R., & Jegers, M. (2009). Personorganization fit: Testing socialization and attraction—selection—attrition hypotheses. *Journal of Vocational Behavior*, 74(1), 102–107. https://doi.org/10.1016/j.jvb.2008.10.010
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, *62*(1), 107-115. https://doi.org/10.1111/j.1365-2648.2007.04569.x
- Graneheim, U. H., Lindgren, B. M., & Lundman, B. (2017). Methodological challenges in qualitative content analysis: A discussion paper. *Nurse Education Today*, *56*, 29–34. https://doi.org/10.1016/j.nedt.2017.06.002
- Harper, R. (2012). The collection and analysis of job advertisements: A review of research methodology. *Library and Information Research*, *36*(112), 29–54. https://doi.org/10.29173/lirg499
- Hirvonen, K., & Mäkinen, E. (2006). *Kunnallinen viranhaltija: Oikeudellisen aseman sääntely* [Municipal official: Regulation of legal status]. Edita.
- Kim, J., & Angnakoon, P. (2016). Research using job advertisements: A methodological assessment. *Library & Information Science Research*, *38*(4), 327–335. http://dx.doi.org/10.1016/j.lisr.2016.11.006
- Klassen, R. M., Durksen, T. L., Al Hashmi, W., Kim, L. E., Longden, K., Metsäpelto, R.-L., Poikkeus, A-M., & Györi, J. G. (2018). National context and teacher characteristics: Exploring the critical non-cognitive attributes of novice teachers in four countries. *Teaching and Teacher Education*, 72, 64–74. https://doi.org/10.1016/j.tate.2018.03.001
- Klassen, R. M., Rushby, J. V., Durksen, T. L., & Bardach, L. (2021). Examining teacher recruitment strategies in England. Journal of Education for Teaching, 47(2), 163–185. https://doi.org/10.1080/02607476.2021.1876501
- Korhonen, M., Siivonen, P., Isopahkala-Bouret, U., Mutanen, H., & Komulainen, K. (2024). Young and/but successful: business graduates performing themselves as valuable labouring subjects. *Journal of Youth Studies*, *27*(5), 668–684. https://doi.org/10.1080/13676261.2022.2161355
- Mackenzie, L. (2021). Discriminatory job advertisements for English language teachers in Colombia: An analysis of recruitment biases. *TESOL Journal*, 12(1), e535. https://doi.org/10.1002/tesj.535
- Madni, A., Baker, E., Chow, K., Delacruz, G., & Griffin, N. (2015). Assessment of teachers from a social psychological perspective. *Review of Research in Education*, *39*(1), 54–86. https://doi.org/10.3102/0091732X14558203
- Mahjoub, A., & Kruyen, P. M. (2021). Efficient recruitment with effective job advertisement: an exploratory literature review and research agenda. *International Journal of Organization Theory & Behavior*, 24(2), 107–125. https://doi.org/10.1108/IJOTB-04-2020-0052
- Mankki, V. (2023). Research using teacher or teacher educator job advertisements: A scoping review. *Cogent Education*, 10(1), 2223814. https://doi.org/10.1080/2331186X.2023.2223814
- Manner, M. (2023, March 30). Missä menet opettajankoulutus? Katso kartalta, missä koulutetaan opettajia [Where are you going, teacher training? See where teachers are trained on the map]. *Opettaja*. https://www.opettaja.fi/tyossa/opettajankoulutus/
- Metsäpelto, R-L., Heikkilä, M., Hangelin, S., Mikkilä-Erdmann, M., Poikkeus, A-M., & Warinowski, A. (2021).

 Osaamistavoitteet luokanopettajakoulutuksen opetussuunnitelmissa: näkökulmana Moniulotteinen opettajan osaamisen prosessimalli [Competence objectives in class teacher education curricula from the perspective of a Multidimensional Adapted Process Model of Teaching]. *Kasvatus*, *52*(2), 164–179.

 https://doi.org/10.33348/kvt.111437

- Metsäpelto, R-L., Poikkeus, A-M., Heikkilä, M., Husu, J., Laine, A., Lappalainen, K., Lähteenmäki, M., Mikkilä-Erdmann, M., Warinowski, A., Iiskala, T., Hangelin, S., Harmoinen, S., Holmström, A., Kyrö-Ämmälä, O., Lehesvuori, S., Mankki, V., & Suvilehto, P. (2022). A multidimensional adapted process model of teaching. *Educational assessment, evaluation and accountability, 34*(2), 143–172. https://doi.org/10.1007/s11092-021-09373-9
- Metsäpelto, R-L., Warinowski, A., Poikkeus, A-M., & Mikkilä-Erdmann, M. (2024). Fostering coherence in teacher education: The MAP Model. In G. Doetjes, V. Domovic, M. Mikkilä-Erdmann & K. Zaki (Eds.), *Coherence in European teacher education: Theoretical Models, Empirical Studies, Instructional Approaches* (pp. 189-210). Springer.
- Mikkilä-Erdmann, M., Warinowski, A., & Iiskala, T. (2019). Teacher education in Finland and future directions. *Oxford Research Encyclopedia of Education*. https://doi.org/10.1093/acrefore/9780190264093.013.286
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers college record*, *108*(6), 1017–1054. https://doi.org/10.1111/j.1467-9620.2006.00684.x
- Morgan, H. (2022). Conducting a qualitative document analysis. *The Qualitative Report*, *27*(1), 64–77. https://doi.org/10.46743/2160-3715/2022.5044
- Rios, J. A., Ling, G., Pugh, R., Becker, D., & Bacall, A. (2020). Identifying critical 21st-century skills for workplace success: A content analysis of job advertisements. *Educational Researcher*, 49(2), 80–89. https://doi.org/10.3102/0013189X19890600
- Selvi, A. F. (2010). All teachers are equal, but some teachers are more equal than others: Trend analysis of job advertisements in English language teaching. *WATESOL NNEST Caucus annual review*, 1(1), 155–181.
- Smestad, B., & Gillespie, A. (2020). Dimensions of teachers' transdisciplinary competence based on a systematic review of three transdisciplinary areas. *Nordic Journal of Comparative and International Education (NJCIE)*, 4(3–4), 117–138. https://doi.org/10.7577/njcie.3757
- Statistics Finland. (2024). Statistical grouping of municipalities. https://www.stat.fi/meta/kas/til kuntaryhmit en.html
- Stephenson, J., & Carter, M. (2014). What do employers ask for in advertisements for special education positions? Australasian Journal of Special Education, 38(1), 51–62. https://doi.org/10.1017/jse.2014.3
- Talmo, T., Soule, M. V., Fominykh, M., Giordano, A., Perifanou, M., Sukacke, V., Novozhilova, A., D'Ambrosio, R., & Elçi, A. (2020). Digital competences for language teachers: Do employers seek the skills needed from language teachers today? In P. Zaphiris, & A. Ioannou (Eds.), *Learning and Collaboration Technologies. Designing, Developing and Deploying Learning Experiences. HCII 2020. Lecture Notes in Computer Science: Vol. 12205* (pp. 399-412). Springer. https://doi.org/10.1007/978-3-030-50513-4 30
- United Nations Educational, Scientific and Cultural Organization. (2024). *Global report on teachers: addressing teacher shortages and transforming the profession*. https://unesdoc.unesco.org/ark:/48223/pf0000388832
- Vilppu, H., Mankki, V., Lähteenmäki, M., Mikkilä-Erdmann, M., & Warinowski, A. (2022). Debunking the myth of high achievers in Finnish primary teacher education: first-year preservice teachers' learning strategies and study success. *European Journal of Teacher Education*, *47*(3), 508–528. https://doi.org/10.1080/02619768.2022.2047175
- Wiese, E., Hatlevik, I. K. R., & Daza, V. (2024). How can universities ensure quality of practice in initial teacher education? *Teaching and Teacher Education*, 139. https://doi.org/10.1016/j.tate.2023.104462