

# Self-Assessment of the Professional Competence of Preschool Teaching Student

**Baiba Kalķe**

University of Latvia  
[baiba.kalke@lu.lv](mailto:baiba.kalke@lu.lv)

**Sanita Baranova**

University of Latvia  
[sanita.baranova@lu.lv](mailto:sanita.baranova@lu.lv)

**Līga Āboltiņa**

University of Latvia  
[liga.aboltina@lu.lv](mailto:liga.aboltina@lu.lv)

**Abstract.** One of the objectives of the European Higher Education Area is to promote the development of competences, with an emphasis on those competences that people need to maintain their current quality of life and high level of employability in the face of a changing society and labor market. This study analyzed the self-assessment of student preschool teachers' professional competence, using a tool (survey) for assessing teachers' professional competence. A structure of preschool teachers' professional competence was analyzed. The results indicate that the developed survey can be used as a tool for the self-assessment of teachers' professional competence. The most highly evaluated sub-competences were general tasks of ensuring professional activity; implementation of learning process; and improvement of professional competence. The data analysis revealed that the question "Is the work related to the field of study?" with the statements included in the survey sections "Implementation of the learning process" and "Improvement of professional competence" is an important indicator in the self-assessment of professional competence among student preschool teachers for the material situation.

**Keywords:** preschool teachers' professional competence, teachers' professional competence, competence assessment, competence self-assessment.

## Būsimu ikimokyklinio ugdymo pedagogu profesinės kompetencijos įsivertinimas

**Santrauka.** Vienas iš Europos aukštojo mokslo erdvės tikslų yra skatinti kompetencijų ugdymą, ypatingą dėmesį skiriant toms kompetencijoms, kurių žmonėms reikia norint išlaikyti esamą gyvenimo kokybę ir aukštą įsidarbinimo lygį kintančios visuomenės ir darbo rinkos sąlygomis. Šiame tyrime analizuojamas būsimų ikimokyklinio ugdymo pedagogų profesinės kompetencijos įsivertinimas naudojant mokytojų profesinės kompetencijos vertinimo instrumentą (apklausą). Straipsnyje nagrinėjama ikimokyklinio ugdymo pedagogų profesinės kompetencijos struktūra. Rezultatai atskleidė, kad tyrimo instrumentas gali būti naudojamas kaip mokytojų profesinės kompetencijos įsivertinimo priemonė. Palankiausiai įvertintos subkompetencijos – tai bendrosios profesinės veiklos užtikrinimo užduotys, mokymosi proceso įgyvendinimas ir profesinės kompetencijos tobulinimas. Duomenų analizė rodo ir tai, kad svarbus būsimų ikimokyklinio ugdymo pedagogų profesinės kompetencijos įsivertinimo esamoje situacijoje rodiklis yra klausimas „Ar jūsų darbas susijęs su studijų sritimi?“ bei teiginiai, pateikiami apklausos dalyse „Mokymosi proceso įgyvendinimas“ ir „Profesinės kompetencijos tobulinimas“.

**Pagrindiniai žodžiai:** ikimokyklinio ugdymo pedagogų profesinė kompetencija, mokytojų profesinė kompetencija, kompetencijų vertinimas, kompetencijų įsivertinimas.

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## **Introduction**

The main goal of modern higher professional education is to prepare qualified, competitive specialists for the labor market who are able to work effectively in their specialty at the level of global standards, are ready for continuous professional growth, social and professional mobility, and have appropriate professional competences.

The professional competence of a teacher is a prerequisite for improving the quality of the educational process in preschool institutions. Thus, the professional competence of a future preschool teacher is one of the priorities of higher pedagogical education (Czepil, 2021).

Significant changes in teacher education worldwide over the last 20 years have been linked to a changing society, inclusive education, new challenges, diversification of families, gender identity and its manifestations, socioeconomic inequalities, the growing use of technology in education, and the increasing importance of education policies and research in education and teaching work (Ministère de l'Éducation Gouvernement du Québec, 2021). These changes also affect teachers' professional competence.

Based on constant changes in the society in Latvia, a national longitudinal study "Assessment of Students' Competences in Higher Education and their Development Dynamics during Study Period" has been conducted, where special attention was paid to investigating the dynamics of the development of the teachers' professional competence, and a survey for assessing that competence was developed for all student teachers, which can also be used as a self-assessment tool.

Research assessing student teachers' professional competence has been limited, and no tool has yet been developed to study the competence of preschool teachers, as their pedagogical activity differs from the professional tasks and specific characteristics of teachers at other levels. Preschool teachers guide children's daily activities, promote their physical, intellectual and social-emotional development, ensure their health and well-being, as well as their care and self-care skills. Children's experiences depend to a large extent on responsible adults (European Commission/EACEA/Eurydice, 2019). The professional competence of teachers today affects children's competence in the future. This is especially true for preschool teachers, who help shape the foundation for children's holistic development, which is formed by the age of five. The professional competence of preschool teachers is an important and effective component of the learning process. Studies on early childhood education and care (ECEC), the quality of care, and more specifically on the competence of preschool teachers, have analyzed a development perspective that focuses more on the integral role of professional development in improving the ECEC quality (Siraj, Kingston, & Neilsen-Hewett, 2019; Taguma, Litjens, & Makowiecki, 2013; Urban, Vandenbroek, Lazzari, Peeters, & Van Laere, 2011).

In Latvia, within the framework of the curriculum reform project School 2030, the preschool curriculum was developed and approved in 2019 (Pirmskolas mācību programma, 2019). The successful implementation of a preschool curriculum has been closely linked to the development of preschool teachers' professional competences

and supportive working conditions, including staff-child relationships and group size in preschool education (Bennett, 2005; Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2015). An important aspect in the design and implementation of preschool education programmes is the provision of high-quality early childhood education and care that provides all children with holistic, achievement-oriented learning. Its implementation depends on the professional competence of preschool teachers (Taguma et al., 2013).

Topicalities in education policy and the provision of quality teacher education determined the aim of this research: to analyze the self-assessment of student preschool teachers' professional competence using the developed tool (a questionnaire). The type of the research design is a case study. To achieve the goal of the study, literature analysis, document analysis, a questionnaire survey, and data processing with SPSS software were used. The research subjects were 70 student preschool teachers from the University of Latvia.

## **Theoretical background**

We begin by stating that competence encompasses knowledge, skills, abilities, values, personal attitudes, and responsibility for autonomous actions (Bykov, 2010). Professional competence is determined by professional standards or qualification requirements (if the profession does not require the development of a professional standard). The Law on Vocational Education (in Latvian: *Profesionālās izglītības likums*, 1999) defines professional competence as a “set of knowledge, skills and responsibilities necessary for the performance of professional activity in a certain work situation.” The vocational standard is one of the basic documents regulating the content of vocational education in the country (Law on Vocational Education, 1999). In Latvia, teachers working in preschools as well as basic and general secondary education have a common professional standard (*Skolotāja profesijas standarts [Teacher Professional Standard]*, 2020).

Professional competence is traditionally acquired in formal education programmes and further developed in professional activities. With the development of technology and new specializations, however, the growing importance of non-formal and informal learning in professional development is also emphasized. In vocational education, practitioners promote their identity as a professional person and encourage lifelong learning (Wimmers & Mentkowski, 2016). Recently, the teaching profession has placed special emphasis on practical experience and self-reflection.

For each profession, the structure of professional competence varies, highlighting the most important aspects of the profession. Only teachers who are professionals can ensure the learners' academic achievement, performance, mental health, better learning results, and more knowledge that can be put into practice. For students to achieve the planned results and to guarantee successful course completion, it is necessary to improve teachers' professional competence, which influences the activities of children/students and forms the basis of learners' future competence. Only if the teacher has the appropri-

ate professional competence can children/students also acquire competence as a result of learning (Ilanlou & Zand, 2011; Mācīšanās lietpratībai [Learning for proficiency], 2018).

The basis of a teacher's professional competence, as for any professional activity, consists of knowledge, skills and responsibility (Law on Vocational Education, 1999). The Teacher Professional Standard (2020) defines the basic tasks and responsibilities of a pedagogue: to plan and implement the learning process; to evaluate the learner's learning performance and growth; to develop the educational institution and the field in general; to ensure professional activities that require the use of information and communication technology; to comply with laws and ethical norms; to use the official language and at least one official language of the European Union; to take care of one's health; and to observe the requirements of legal labor relations, labor protection, and environmental protection. Cultural and linguistic competence can be emphasized as fundamental to the teaching profession. A teacher is a cultured professional who is at once an interpreter, facilitator, and critic of culture when carrying out duties and communicating appropriately in the language of instruction in all associated contexts (Ministère de l'Éducation Gouvernement du Québec, 2021).

The preschool pedagogical process should be organized such that children's well-being and social-emotional and cognitive development form a coherent whole in which play, learning, and care are integrated in all preschool activities (Nasiopoulou, Williams, & Lantz-Andersson, 2021). The activity of a preschool teacher in basic education in terms of professional competence emphasizes the knowledge of specific situations, which is formed using the variables of knowledge, skills, attitudes, and motivation (Klieme, Hartig, & Rauch, 2008; Kunter et al., 2013). It is a process in which teachers demonstrate multidimensional and complex professional competence, usually reflecting the interaction of their knowledge, skills, personality, attitudes and motivation (Epstein & Hundert, 2002). Professional competence is thus a way to understand the quality and effectiveness of preschool teachers.

Several directions of empirical research are integrated here to demonstrate these aspects of effective teaching design, including teachers' knowledge of children and learning, personality, motivation and emotional self-regulation skills. Research has shown that the most important thing is for preschool teachers to understand how to interact with children and provide more opportunities for pupils' active learning. This experience relates to teachers' pedagogical knowledge of how to support children's emotional, behavioral, cognitive, and language development through academic and social interactions (Hamre, Downer, Jamil, & Pianta, 2012). Empirical research has suggested that teachers' knowledge of effective teacher-child interaction can improve the quality of preschool education (Early et al., 2014), and preschool teachers with high professional competence make more use of social and cognitive interactions, are better able to perceive and understand children's emotions (which contributes to children's sensitivity; Mashburn, Hamre, Downer, & Pianta, 2006), and have child-centered extraversion and awareness, high self-efficacy, and high emotional intelligence (Ying Hu, Chen, & Fan,

2017). Attitudes and beliefs are important components of competence (Wilkins, 2008). Preschool teachers' beliefs and values, which also include stereotypes and teachers' motivation, which includes self-efficacy (i.e. teachers' confidence in their ability to successfully organize and complete specific learning tasks in a given context), are identified as key areas that also affect multicultural diversity in teaching children (Hachfeld, Hahn, Schroeder, Anders, & Kunter, 2015).

To acquire and improve the professional competence of teachers, professional qualities essential for effective teaching are needed. Qualities such as cooperation, interest, motivation, communication, openness to innovation, ethics, positivism are noted (Department of Education and Training, 2004). These qualities ensure that teachers are prepared for the challenges, requirements and responsibilities of teaching. Professional qualities provide core values, beliefs, and the ability to make decisions and perform actions in the daily pedagogical process. They can also describe the attitudes and behaviors through which teachers demonstrate their ability to facilitate learning for learners.

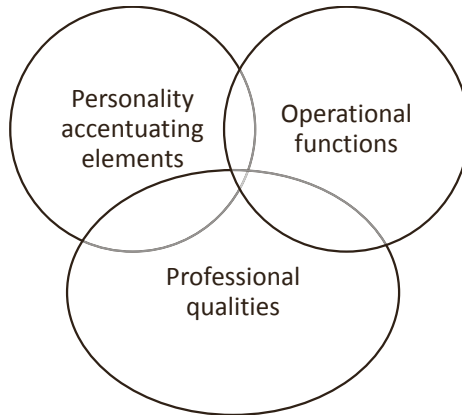
There are different approaches to classifying the functions of a teacher's activity that ensure professional competence. Šteinberga and Kazāka (2018) have emphasized communication, self-knowledge and cognitive management, as well as organizational and methodological functions, which include high cooperation and communication skills; the ability to meaningfully organize one's own and others' activities; high emotional intelligence; the ability to assess the knowledge and skills of the learners; and developing attitudes and experiences and their purposeful use. The professional competence of a pre-school teacher is based on daily tasks in the pedagogical process, which includes acquired knowledge, skills, values, and social behavior (Czepil, 2021).

The competence of a preschool teachers is recognized in studies as a key factor to ensuring the quality of preschool education. The competence of a preschool teacher has several components: a general pedagogical competence, specific content competence, distinct teacher competence, play competence, competence of the child's perspective, and collaborative and social competence (Lillvist, Sandberg, Sheridan & Williams, 2014).

The competence structure of preschool teachers emphasizes the need for a protective and supportive environment that provides social support for children and can help them adapt and succeed in school. Equally important is the promotion of emotional development in a positive emotional environment (McNally, Slutsky, 2018).

Based on the analysis of literature and normative documents, this research created a structure of professional competence for preschool teachers (Figure 1) that is formed by the interaction of three component groups:

- personality accentuating elements: knowledge, skills, value, attitude, views;
- operational functions: cognitive, communication, didactic, management, reflexive; and
- professional qualities: cooperation, interest, motivation, openness to innovations, ethics, positivism.



**Figure 1.** Competence structure for preschool teachers.

The structure of each teacher's competence consists of the three components, but their weight differs. The most important component is their professional qualities. A teacher's reflective activity is important in education. By including self-assessment in teacher education curricula, prospective teachers are encouraged to ask themselves questions about the nature of learning, the impact of experience on further learning, how to make their learning more productive and how to explore their performance for improvement. As a result, it is easier for them to understand what and how they are doing as teachers, and they are able to see both successes and failures without fear of acknowledging that there are things they do not yet know and would be willing to learn from their own experience (Latkovska, 2015). Self-assessment is important for each student's study progress and dynamic development of competencies.

## Methodology

The content of the teacher professional competence assessment tool was developed within the research project "Assessment of the Students' Competences in Higher Education and their Development Dynamics during the Study Period." One of the tasks of the project was to develop a questionnaire to assess the professional competence of teachers and to test it with at least 50 respondents. In the questionnaire, respondents were offered various characteristics of teachers' behavior in the form of statements (performing their professional duties, planning and implementing the learning process, providing feedback, as well as improving their professional knowledge and skills). The statements were developed on the basis of the Teacher Professional Standards (2020) considering its structure and the knowledge, skills, attitudes, and competences required to perform the tasks within a teacher's professional activity. The teacher professional competence assessment tool consisted of six question sections: planning of the learning process (Q1); implementation of the learning process (Q2); assessment of learners' learning performance and growth (Q3); improvement of professional competence (Q4); development of

the educational institution and field of education (Q5); and general tasks of ensuring professional activity (Q6). Each section included 5–11 subsections with statements that covered elements of the preschool teacher professional competence structure: personality accentuating elements, operational functions, professional qualities.

Respondents were asked to rate statements of the behaviors described as appropriate for them using a 7-point Likert scale (from 1, with the behaviour not typical at all [including situations the respondent never experienced] to 7, which was completely characteristic of them).

The survey was available for completion from 1 February 2021 to 15 April 2021. The questionnaire was fully completed by 106 respondents, of which 104 survey forms were valid, of which  $N = 70$  of the survey replies were analyzed within this paper (i.e. answers from student preschool teachers from the University of Latvia). The type of the research design is a case study; therefore, the results of the study are not generalizable. The average time to complete the survey was 54 minutes, but in the selected group of student preschool teachers the average time was 58 minutes.

IBM SPSS (*Statistical Package for the Social Sciences*, version 28) and Microsoft Excel 2016 software were used for data analysis. The study considered all ethical research standards in accordance with the General Data Protection Requirements. The survey was anonymous, and participation was completely voluntary.

## Results

To assess the internal consistency of the survey, Cronbach's alpha was used, as all items were scored on a Likert scale. Table 1 shows the reliability statistics. Cronbach's alpha should have a score of over 0.7 for high internal consistency; for this survey,  $\alpha = .990$ , which is considered to be very high and shows that the survey is reliable.

**Table 1.** Reliability statistics for questionnaire

| Reliability statistics |  |            |
|------------------------|--|------------|
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| ,990                   | ,990   | 222        |

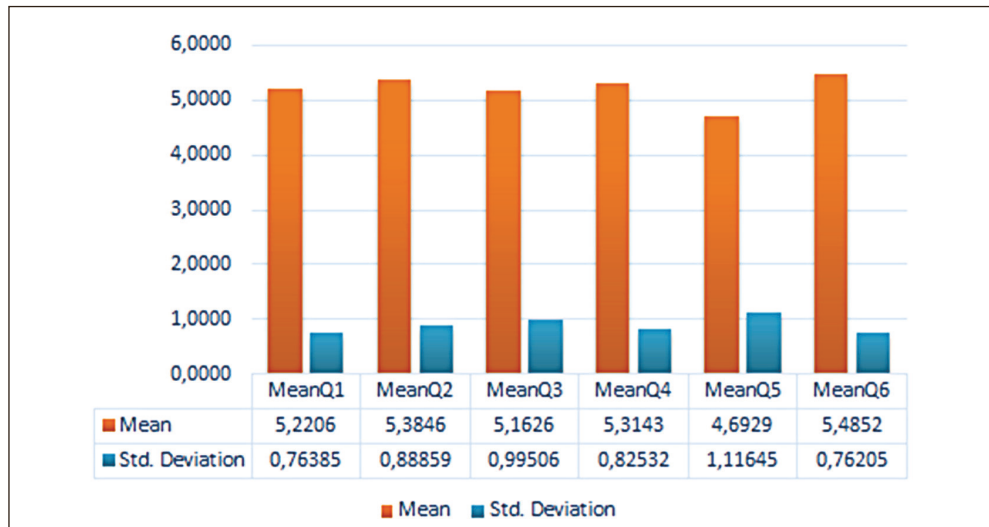
Out of the 70 students forming the research base, 45 respondents study at the first level of a professional higher education (college education) programme (ISCED level 5), but 25 are in the bachelor's study programme (ISCED level 6). Only one of the respondents studied full time, while 69 study part time. One respondent is pursuing two study programmes in parallel, while 69 are currently in only one study programme. A total of 15 respondents noted that they had previously graduated from another higher education programme, including management sciences, cultural management, economics, design, social caregiving, and communication science. One respondent has already completed higher pedagogical education, while seven respondents indicated that they

have had other study experience before (they have studied in a programme for at least one study year from which they have not graduated). The age of the respondents ranged from 19 to 57 years, with an average of 32.9 years. In terms of academic year, 48 are first-year students, 21 are second-year students, and one respondent is studying in their 4th year. Most respondents ( $n = 50$ ) indicated their weighted average mark in the previous semester, and the average was 7.94 on a ten-point scale. Most respondents ( $n = 64$ ) work in parallel with their studies (9 part-time jobs, 55 full-time jobs), while one is self-employed or owns a company, and five are only studying. Most respondents ( $n = 55$ ) indicated that the work fully corresponds to the field of study; 8 stated it is partially compliant, 3 stated it is non-compliant and 6 did not answer this question. Those working in the field of education indicated experience ranging from 2 months to 11 years, but the average duration of educational work experience was 2.5 years.

A summary of the mean values for each of the six sections in the questionnaire are shown in Table 2 and Figure 2.

**Table 2.** Descriptive Statistics.

|    | Minimum | Maximum | Mean   | Std. Deviation |
|----|---------|---------|--------|----------------|
| Q1 | 3.17    | 7.00    | 5.2206 | 0.76385        |
| Q2 | 2.61    | 7.00    | 5.3846 | 0.88859        |
| Q3 | 1.00    | 7.00    | 5.1626 | 0.99506        |
| Q4 | 1.81    | 6.88    | 5.3143 | 0.82532        |
| Q5 | 1.20    | 6.47    | 4.6929 | 1.11645        |
| Q6 | 3.21    | 6.96    | 5.4852 | 0.76205        |



**Figure 2.** Mean and Standard Deviation.



The most highly evaluated sub-competences were: Q6, general tasks of ensuring professional activity (mean 5.4852, SD 0.76205); Q2, implementation of learning process (mean 5.3846, SD 0.88859); and Q4, improvement of professional competence (mean 5.3143, SD 0.82532; see Figure 2 and Table 2).

When analyzing students' self-assessment of their professional competence, Spearman's correlation coefficient was calculated and interpreted as follows (Akoglu, 2018):

$r_s \in [0.6; 1]$  – strong correlation;

$r_s \in [0.3; 0.6]$  – moderate correlation;

$r_s \in [0; 0.3]$  – weak correlation.

Several moderate correlations were identified in relation to students' work in the field of education. A correlation was found in section Q1 (planning of the learning process) between students who combine studies with work in the field of education and the use of theories, strategies, and tools for planning support for child learning ( $p = 0.010$ ,  $r = 0.308^{**}$ ). It can therefore be concluded that if a student has work experience, they are able to more purposefully connect it to theory.

In section Q2 (implementation of the learning process), work experience in education was correlated with the following statements: "Supports learners' learning by providing differentiated approaches and resources" ( $p = 0.005$ ,  $r = -0.349^{**}$ ); "Communication: uses electronic communication (e-class or MyHub system, e-mails, various communication applications such as WhatsApp, text messages, mobile calls, communication on social networks such as Facebook, etc.)" ( $p = 0.008$ ,  $r = -0.329^{**}$ ); "Offers tasks close to real life and various teaching materials, linking it with the interests of learners and everyday life" ( $p = 0.001$ ,  $r = -0.393^{**}$ ); "Puts learners' significant and complex short-term and long-term achievable results, which envisage both the acquisition of specific knowledge and individual skills and their transfer to new situations, including the promotion of self-directed learning" ( $p = 0.007$ ,  $r = -0.336^{**}$ ); and "Understands social media activities and communication technologies, as well as their impact on learners and society" ( $p = 0.004$ ,  $r = -0.356^{**}$ ). These correlations are in line with the innovations of the School 2030 project in pre-primary education curricula, such as the digitization of the pre-primary learning process; as 55 respondents already work in pre-primary education, they are directly involved in the implementation of these changes.

Correlations with work experience were also present in section Q4 (development of professional competence) for the following statements: "Evaluates the use of teaching methods to promote the learning growth of pupils/children" ( $p = 0.007$ ,  $r = -0.331^{**}$ ); "Systematically evaluates the lessons and the teaching approach" ( $p = 0.002$ ,  $r = -0.379^{**}$ ); "Knows and uses educational research methods in pedagogical practice" ( $p = 0.002$ ,  $r = -0.384^{**}$ ); "Performs research activities in education to support the learning process" ( $p = 0.002$ ,  $r = -0.384^{**}$ ); "Identifies and evaluates the main development tendencies of the teaching profession" ( $p = 0.002$ ,  $r = -0.377^{**}$ ); and "Efficiently uses of all resources (human, material, technical, etc.) to obtain results and, if necessary, implements effective approaches to achieve educational goals" ( $p = 0.003$ ,

$r = -0.364^{**}$ ). Students with pedagogical experience tend to develop their professional growth, incorporate necessary research with students, purposefully choose pedagogical strategies, and support their pedagogical practice in research. One of the highest correlation coefficients in this section was with the statement “Reflects on one’s practice, referring to the latest findings of educational research and current educational practice” ( $p = 0.001$ ,  $r = -0.410^{**}$ ), which confirms the importance of a work-based learning process to promote students’ ability to reflect on the experience gained in action, link it with the findings gained in studies, and use it for further growth.

A correlation was found in section Q5 (development of the educational institution and the field of education) between students who combine studies with work in the field of education and the statement “Controls and is able to change their working conditions” ( $p = 0.006$ ,  $r = -0.342^{**}$ ). This confirms the previously revealed correlations about the autonomy of working students and deeper involvement in the activities of the educational institution. There was also correlation in section Q6 (general tasks of ensuring professional activity) with the statements “Knows and observes regulatory enactments and work instructions” ( $p = 0.005$ ,  $r = -0.348^{**}$ ) and “Plans and implements its work with reference to legal acts” ( $p = 0.010$ ,  $r = -0.321^{**}$ ), which indicates that the teaching profession, including preschool teachers, has work tasks, the significance and usability of which the teacher finds meaningful only in practice.

A correlation was found between students’ time spent studying and a statement in section Q2 (implementation of the learning process): “Expresses a positive attitude towards learners’ family culture, traditions, historical experience in school events, lessons, school environment in general” ( $p = 0.006$ ,  $r = -0.326^{**}$ ). Correlations were also found in relation to the place of residence and the following statements in section Q6 (general tasks of ensuring professional activity): “Communicate in (a) foreign language(s) using precise educational terminology” ( $p = 0.002$ ,  $r = -0.357^{**}$ ) and “Communicate in (a) foreign language(s) for improvement purposes” ( $p = 0.000$ ,  $r = -0.445^{**}$ ). Both of these statements are highly valued by students living in Riga, Pierīga, and other large Latvian cities, as the environment in these settlements is more multicultural.

The correlation analysis revealed unexpected commitments – several features of professional competence in sections Q3, Q4, and Q5 are rated higher by those students who rate their material condition higher. These features relate to the assessment of children’s growth, with a stronger focus on formative assessment, as well as more time devoted to research, analysis, information for parents, adapting learning content to learners’ needs, and systematically evaluating and using digital learning materials. Material freedom allows students to focus more on self-improvement and the needs of learners. This echoes the interrelationship revealed in the theoretical analysis between the competence of the teacher in the present and the competence of learners in the future.

In each of the sections, several statistically insignificant connections were formed with the student’s field-relevant work experience. Statistically insignificant correlations suggest that it is necessary to expand the research base in a future study to ascertain the

strength of these correlations. Spearman's correlation was not found in the other sections on demographic and study-related issues. It can therefore be concluded that the professional competence of student preschool teachers is not statistically significantly related to the age of students or previous education.

## Conclusions

1. Teachers' professional competence is a prerequisite for the quality of teaching work. Teacher competence affects learners' learning and learning outcomes. To assess this professional competence, various assessment tools need to be used, such as situation analysis, portfolio, observations in action, and self-assessment.
2. The assessment of a teacher's professional competence using only the survey should take into account that it limits the validity of self-assessment, and this limitation must be considered when using the tool and interpreting the results.
3. The survey developed in the project "Assessment of Students' Competences in Higher Education and their Development Dynamics during the Study Period" can be used for the self-assessment of a teacher's professional competence, but the preschool teacher competence structural components emphasize professional qualities that should be included in a new version of the survey, which will be developed in the second phase of the project.
4. The analysis of the data revealed that the question "Is the work related to the field of study?" is mainly correlated with demographic information and the field of study with the statements included in the survey sections Q2 (Implementation of the learning process) and Q4 (Improvement of professional competence). No such correlations were found in section Q3 (Assessment of learners' learning performance and growth).
5. In section Q3 (Assessment of learners' learning performance and growth), correlations appeared in connection with the self-assessment of the student's material condition. The higher the material condition was rated, the more time was devoted to the analysis of the learners' learning performance and growth assessment.
6. In future research, the survey should be conducted at different stages within the study programme to identify the relative dynamics of professional competence development among student preschool teachers.

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