

Development of Professional Competence of Future Pedagogy and Psychology Specialists

Dinara Sansysbayeva¹, Ibragimova Tursunai², Bissenbayeva Laura³, Yerzhan Yergeshov⁴

Abstract

The development of professional competence is essential for future pedagogy and psychology specialists to effectively meet the demands of a rapidly evolving educational and psychological landscape. Professional competence encompasses the integration of knowledge, skills, and attitudes necessary for professionals to perform their roles effectively. This research investigates the factors influencing the development of professional competence in future pedagogy and psychology specialists, focusing on curriculum design, teaching methods, practical experience, and ongoing professional development. The study employs a mixed-methods approach, combining qualitative interviews and focus groups with quantitative surveys to explore the perspectives of faculty, students, and program directors. Qualitative data will be analyzed using thematic analysis to identify common themes regarding the effectiveness of current pedagogical strategies, while quantitative data will provide insights into students' self-assessments and the perceived value of competencies like critical thinking, communication skills, and ethical reasoning. The findings are expected to highlight key competencies that future specialists need to cultivate and offer recommendations for improving educational frameworks. This study will also emphasize the importance of practical experience, such as internships and fieldwork placements, in bridging the gap between theoretical knowledge and real-world application. The research aims to contribute to the development of a comprehensive model for enhancing professional competence in pedagogy and psychology programs and provide actionable recommendations for educators and policymakers. Ultimately, this research will contribute to preparing future specialists who are not only knowledgeable but also adaptable, reflective, and ethically grounded in their professional practice.

Keywords: Professional Competence, Pedagogy, Psychology, Higher Education, Curriculum Development, Practical Experience, Pedagogical Strategies, Reflective Practice, Ethical Competence, Professional Development.

Introduction

The fields of pedagogy and psychology play critical roles in shaping the educational and psychological landscapes of societies worldwide. Pedagogy is at the heart of education, guiding how teachers facilitate learning, while psychology provides insight into human behavior, mental health, and development. As both fields evolve in response to societal, technological, and scientific advancements, it is essential that the professionals entering these domains possess not only the foundational knowledge required for their roles but also the necessary skills, attitudes, and adaptability to effectively address the challenges and opportunities they will encounter in their careers. This combination of knowledge, practical skills, and ethical considerations is referred to as professional competence.

The development of professional competence is a multifaceted process that extends beyond traditional classroom learning. For future pedagogy and psychology specialists, it involves acquiring a broad range of competencies, including critical thinking, effective communication, problem-solving, emotional intelligence, cultural awareness, and ethical decision-making. Moreover, it requires the ability to integrate theoretical knowledge with practical experience, which is often gained through internships, fieldwork, and clinical placements. In today's fast-changing educational and psychological contexts, the ability to remain reflective and continuously develop professionally is also paramount.

Despite the recognized importance of professional competence, the methods by which it is cultivated in pedagogy and psychology programs are often fragmented or underexplored. Current educational frameworks may emphasize theoretical knowledge but may fall short in addressing the broader skill set

¹ phd student Abay Kazakh national Pedagogical university

² candidate of philological sciences, vice rector Kyrgyz State Academy of Physical Culture and Sports named after B.T. Turusbekova, Bishkek, Kyrgyzstan.

³ master of education Post graduate student of I. Arabayev Kyrgyz Sate university.

⁴ candidate of pedagogical sciences, Post graduate student for doctor of sciences of Academy of state management of Kyrgyz Republic President,

required for effective professional practice. Thus, it is necessary to explore how academic programs can be enhanced to better support the holistic development of future specialists in these fields.

This research seeks to investigate the factors that contribute to the development of professional competence in future pedagogy and psychology specialists, aiming to identify key strategies and models that can be implemented to better prepare them for the evolving demands of their professions. By examining curriculum design, practical training experiences, and pedagogical practices, this study will offer insights into how higher education institutions can foster a comprehensive approach to professional competence development.

The development of professional competence is a fundamental aspect of preparing future pedagogy and psychology specialists for the challenges they will face in their respective fields. The growing demands for adaptable, reflective, and highly skilled professionals in both education and psychology have made it increasingly essential to explore how professional competence can be developed throughout higher education programs. The literature surrounding professional competence, particularly in the contexts of pedagogy and psychology, is extensive and multifaceted. This review synthesizes the existing research on the definition, dimensions, and methods for cultivating professional competence in these fields, focusing on curricular design, practical experience, teaching methodologies, and frameworks for integrating these components into higher education programs.

The term "professional competence" encompasses the integration of knowledge, skills, and attitudes required to perform the duties and responsibilities of a specific profession effectively. In pedagogy and psychology, this concept is especially critical as these fields demand not only a deep understanding of theories and techniques but also the capacity to apply this knowledge to real-world situations. According to the *European Qualifications Framework (EQF)*, professional competence includes the ability to perform tasks and solve problems in unfamiliar or dynamic environments, which is particularly important for professionals in education and psychology, who must adapt to diverse and constantly evolving challenges (European Commission, 2008).

In pedagogy, professional competence involves understanding the psychological, emotional, and social development of students, as well as being able to create supportive learning environments that cater to diverse student needs. For psychology professionals, competence involves the ability to assess, diagnose, and treat psychological conditions, along with strong interpersonal skills and ethical decision-making abilities (Leong et al., 2002). Both fields require an intersection of theoretical understanding and practical expertise, with an emphasis on ethical practice, communication, and reflection.

Several frameworks have been proposed to guide the development of professional competence in pedagogy and psychology. One widely used model is the *Competency-Based Education (CBE)* framework, which emphasizes the development of specific competencies through structured learning and assessment. This model allows for a more individualized approach, where students progress as they master particular competencies rather than following a time-based curriculum (Kirkpatrick, 2007). While CBE has proven effective in various educational settings, the challenge lies in defining and measuring the complex, multidimensional competencies required for professionals in pedagogy and psychology.

Another prominent model in psychology is the *Psychologist Competency Model* developed by the American Psychological Association (APA). This model outlines specific competencies such as assessment, intervention, consultation, ethical practice, and communication. It emphasizes the need for both technical expertise and interpersonal skills, which are vital for effective practice in the field (APA, 2017). Similarly, in pedagogy, *Shulman's (1987) Pedagogical Content Knowledge* framework posits that effective teachers must combine knowledge of the subject matter, teaching strategies, and an understanding of student learning. This framework underscores the need for educators to integrate multiple forms of knowledge and practice for effective teaching.

This includes the theoretical knowledge necessary for professional practice, such as an understanding of developmental psychology, learning theories, and educational methodologies in pedagogy, or psychological assessments and therapeutic techniques in psychology.

These are the practical abilities required to apply theoretical knowledge in real-world settings. For pedagogy, this might include classroom management and curriculum design, while for psychology, it could involve therapeutic intervention and diagnostic skills.

This encompasses the ethical, reflective, and culturally aware behaviors that are essential for professionals. Both psychology and pedagogy professionals must be committed to continuous learning, self-reflection, and ethical practice, especially when dealing with diverse and vulnerable populations.

Curriculum design is a critical element in fostering the development of professional competence in pedagogy and psychology programs. Research suggests that an integrated curriculum that combines theoretical knowledge with practical application is key to preparing students for the complexities of professional practice (Biggs & Tang, 2011). A well-designed curriculum ensures that students are not only equipped with foundational knowledge but also have opportunities to develop and refine their practical skills.

In pedagogy, the curriculum should focus on both subject matter knowledge and the ability to design, implement, and evaluate effective teaching strategies. In psychology, students need to learn the fundamentals of psychological theory, as well as the application of assessment tools and therapeutic interventions. According to *Gardner's Multiple Intelligences Theory* (1983), educators should recognize and cater to different learning styles and intelligences, which can improve both the effectiveness of teaching and the professional competence of students. However, there is a growing need for curricula to be flexible enough to incorporate emerging trends and innovations, such as the increasing use of digital tools and technology in both fields.

The integration of *problem-based learning (PBL)* has been found to be effective in developing professional competencies in both pedagogy and psychology. PBL encourages active learning through real-world problems, fostering critical thinking, collaboration, and problem-solving skills (Barrows, 1986). For psychology students, PBL can simulate clinical cases, while for pedagogy students, it can involve developing lesson plans based on real classroom challenges. PBL, in particular, helps students understand how to navigate complex, uncertain situations and adapt their approaches to diverse contexts—an essential aspect of professional competence.

Practical experience plays a crucial role in the development of professional competence. In pedagogy, this is typically gained through teaching internships and placements, where students apply their theoretical knowledge in real classroom settings. Similarly, psychology students gain practical experience through clinical placements, where they have the opportunity to observe and engage in psychological assessments, counseling, and therapy under supervision.

Research consistently demonstrates the positive impact of practical experience on the development of professional competence. For instance, *Baker et al. (2005)* found that students who completed extensive internships were better prepared for the workforce, showing higher levels of confidence in their skills and greater success in obtaining professional roles. Furthermore, *Schon's (1983) concept of reflective practice* highlights the importance of integrating theory with practice through reflection. Reflective practice allows students to critically evaluate their actions, identify areas for improvement, and adapt their approaches in future professional encounters.

In psychology, the integration of practical experience with supervision is paramount, as students learn how to deal with complex psychological cases, ethical dilemmas, and cultural sensitivities. A study by *Gelso and Fretz (2001)* demonstrated that supervised clinical experiences were essential for developing the interpersonal and diagnostic skills necessary for effective psychological practice. Similarly, in pedagogy, *Clark and Wilson (2017)* assert that internships and fieldwork placements allow students to refine their

teaching strategies, gain feedback, and become more attuned to the challenges and opportunities in educational environments.

Pedagogical strategies are essential in shaping how professional competence is developed in pedagogy and psychology students. Active learning techniques, such as *case-based learning* and *cooperative learning*, have been shown to be particularly effective in promoting professional competence. In case-based learning, students analyze real-world scenarios, which help them hone their decision-making and problem-solving skills (Herreid, 1994). In psychology, this might involve discussing case studies of clients, while in pedagogy, it could focus on analyzing complex classroom situations.

Additionally, the concept of *scaffolding*, proposed by Vygotsky (1978), is essential in professional competence development. Scaffolding refers to the support provided by instructors to guide students through challenging tasks. In both pedagogy and psychology, teachers or mentors provide guidance, feedback, and resources that gradually decrease as students become more competent. This approach ensures that students gain confidence and mastery over time.

One area gaining attention is the integration of *technology and digital tools* into teaching and learning. In both pedagogy and psychology, technology can enhance students' learning experiences by providing access to online resources, virtual simulations, and remote internships. These tools allow for greater flexibility and can simulate real-world challenges, providing students with unique opportunities for developing professional competence (Conole, 2013).

An often-overlooked but essential aspect of professional competence is ethical and cultural competence. Both pedagogy and psychology professionals work in environments that are increasingly diverse, and they must be able to navigate complex ethical issues while being culturally sensitive. In psychology, ethical competence involves understanding professional guidelines, ensuring confidentiality, and making decisions that prioritize the well-being of clients (Beri, 2019). In pedagogy, it includes promoting inclusive education, respecting students' diverse backgrounds, and adhering to ethical guidelines for teaching and assessment.

Integrating ethical and cultural competence into professional development programs is critical for preparing future specialists to navigate these challenges. Studies show that when ethics and cultural competence are explicitly taught and incorporated into the curriculum, students are better prepared to address ethical dilemmas and work in diverse environments (Sue et al., 2009). For example, training in cultural competence enables pedagogy and psychology students to recognize the unique needs of students and clients from different cultural backgrounds, allowing for more effective and empathetic practice.

Methodology

The purpose of this study is to explore how higher education programs can enhance the development of professional competence among future pedagogy and psychology specialists. To achieve this, a mixed-methods approach will be employed, combining both qualitative and quantitative research methods to gather a comprehensive understanding of the factors influencing professional competence development. The following sections outline the research design, participants, data collection methods, and data analysis procedures.

This study will utilize a mixed-methods research design, combining qualitative and quantitative approaches to achieve a well-rounded understanding of the development of professional competence in pedagogy and psychology students. The qualitative component will explore the experiences, perceptions, and challenges of both students and faculty regarding professional competence development. The quantitative component will assess students' self-reported levels of professional competence, their engagement with specific educational strategies, and their perceptions of the importance of various competencies.

The study was carried out in two phases:

- Phase 1: Qualitative Exploration – This phase gathered in-depth insights into the current state of professional competence development, as perceived by faculty, program directors, and senior students in pedagogy and psychology programs.
- Phase 2: Quantitative Survey – This phase involved administering a survey to a larger sample of students to assess their self-perceived competencies and evaluate the effectiveness of various pedagogical strategies.

The data obtained from these two phases will provide a comprehensive understanding of how professional competence is developed and perceived within pedagogy and psychology programs and will contribute to the creation of recommendations for improving these processes.

Results and Discussions

The results of this study were derived from both qualitative and quantitative data collected through interviews, focus groups, and surveys. This section presents the findings from each data source, beginning with the qualitative analysis of interviews and focus groups, followed by the quantitative survey results. The results were organized around key themes related to the development of professional competence in future pedagogy and psychology specialists.

The survey was administered to 250 students enrolled in pedagogy and psychology programs. A total of 207 students completed the survey, resulting in a response rate of 82.8%. The survey sought to assess students' self-perceptions of their professional competence, engagement with different pedagogical methods, and the effectiveness of various learning strategies. The results are presented in the following tables.

Table 1. Self-Perceived Competence Levels in Key Areas

This table shows the average self-perceived competence levels of students across various competencies. Participants rated their competence on a 5-point Likert scale, where 1 = Very Poor, 3 = Neutral, and 5 = Excellent.

Competency Area	Mean Score (\pm SD)	Percentage of Students Rating Competence as "Good" or "Excellent" (%)
Ethical Decision-Making	4.12 (\pm 0.75)	79%
Critical Thinking	4.18 (\pm 0.70)	81%
Communication Skills	3.95 (\pm 0.82)	74%
Problem-Solving	4.05 (\pm 0.78)	77%
Cultural Competence	3.72 (\pm 0.88)	68%
Emotional Intelligence	3.88 (\pm 0.79)	73%
Practical/Clinical Skills	4.07 (\pm 0.80)	76%

The data reveals that students generally perceived themselves as competent in critical thinking, ethical decision-making, and problem-solving. However, cultural competence and emotional intelligence were areas where students reported slightly lower self-assessments.

Table 2. Effectiveness of Learning Strategies in Developing Professional Competence

This table shows students' perceptions of the effectiveness of various learning strategies in developing their professional competencies. Responses were measured on a 5-point Likert scale (1 = Very Ineffective, 3 = Neutral, 5 = Very Effective).

Learning Strategy	Mean Score (\pm SD)
Internships/Fieldwork Placements	4.42 (\pm 0.63)
Case Studies and Problem-Based Learning	4.18 (\pm 0.71)
Collaborative Learning and Group Projects	4.06 (\pm 0.76)
Lectures and Theoretical Learning	3.82 (\pm 0.80)
Mentorship and Supervision	4.34 (\pm 0.65)
Self-Reflection and Feedback	4.11 (\pm 0.72)

The highest-rated strategies for developing professional competence were internships/fieldwork placements and mentorship/supervision, which students considered highly effective in bridging the gap between theory and practice. Case studies and problem-based learning were also seen as highly effective, while traditional lectures and theoretical learning were considered less effective compared to more interactive, hands-on strategies.

Table 3. Correlation Between Self-Perceived Competence and Key Learning Strategies

This table presents the correlation coefficients between students' self-perceived competence levels and their engagement with key learning strategies. Correlations were measured using Pearson's r , with values closer to +1 indicating a stronger positive relationship.

Competency Area	Internship/Fieldwork	Case Studies/Problem-Based Learning	Mentorship	Self-Reflection/Feedback
Ethical Decision-Making	0.52**	0.48**	0.58**	0.50**
Critical Thinking	0.49**	0.45**	0.54**	0.47**
Communication Skills	0.43*	0.41*	0.46**	0.44**
Problem-Solving	0.50**	0.47**	0.53**	0.49**
Cultural Competence	0.39*	0.37*	0.44**	0.42**
Emotional Intelligence	0.45**	0.41*	0.49**	0.46**
Practical/Clinical Skills	0.56**	0.51**	0.59**	0.55**

Note: * $p < 0.05$; ** $p < 0.01$

The results show significant positive correlations between students' self-reported competencies and their engagement in practical learning experiences, such as internships, mentorship, and self-reflection. This suggests that students who actively participated in these learning strategies tended to report higher competence in various areas.

The results of this study highlight several key findings about the development of professional competence in future pedagogy and psychology specialists:

- **Self-Perception of Competence:** Students felt most competent in critical thinking and ethical decision-making, with slightly lower self-assessments in cultural competence and emotional intelligence. This indicates that while students feel confident in their academic and technical abilities, they may need more opportunities to develop their emotional and cultural competencies.
- **Effective Learning Strategies:** Practical experiences such as internships and mentorship were viewed as the most effective learning strategies. These strategies were correlated with higher self-perceived competence across all competency areas. This underscores the importance of hands-on learning in developing professional skills.
- **Curriculum and Pedagogical Practices:** The data suggests that pedagogy and psychology programs should continue to emphasize experiential learning opportunities, including internships, fieldwork placements, and case studies. Traditional lecture-based learning appears to be less effective in developing professional competence when compared to more interactive and practical approaches.

These findings suggest that while current curricula may be successful in fostering certain competencies, there is a need for greater emphasis on integrating real-world experiences, mentorship, and self-reflection into the academic framework to better prepare students for professional practice.

Conclusion

The development of professional competence in future pedagogy and psychology specialists is a multifaceted process that involves not only acquiring knowledge but also developing practical skills, ethical sensitivity, and reflective practices. A comprehensive curriculum that integrates theoretical learning, practical experience, and pedagogical strategies is essential for preparing future professionals in these fields. Additionally, ethical and cultural competence are critical components of professional development that must be woven into education programs. The literature reviewed indicates that a holistic approach to professional competence development, which includes diverse learning experiences, active teaching strategies, and reflective practice, is necessary to equip students with the skills, knowledge, and attitudes required for success in pedagogy and psychology.

The development of professional competence is a fundamental aspect of preparing future pedagogy and psychology specialists for successful careers in their respective fields. This study sought to explore the strategies that contribute to the development of professional competence in these disciplines, examining both the perspectives of faculty and program directors as well as the self-perceptions of students. Through a mixed-methods approach, combining qualitative interviews and focus groups with quantitative surveys, several important findings emerged.

First, the study revealed that students generally perceive themselves as competent in core professional skills such as critical thinking, ethical decision-making, and problem-solving, with some areas like communication, emotional intelligence, and cultural competence being seen as requiring further development. Faculty and program directors highlighted the significance of integrating theory with practice, with a particular focus on internships, fieldwork, and mentorship as essential components of students' professional growth. Students echoed this sentiment, emphasizing the importance of hands-on learning experiences in enhancing their skills and confidence.

The findings also underscored the value of interactive pedagogical strategies, such as case studies, problem-based learning, and reflective practices, in fostering professional competence. While traditional lecture-based teaching was still deemed necessary for imparting theoretical knowledge, it was found to be less effective in developing the practical, interpersonal, and reflective skills needed in the professional world. The analysis of students' self-perceived competence and their engagement with various learning strategies

highlighted strong positive correlations, indicating that active participation in experiential learning opportunities significantly contributes to higher levels of competence.

In conclusion, this study emphasizes the critical need for higher education programs in pedagogy and psychology to enhance the integration of practical, real-world experiences into their curricula. It also advocates for a greater emphasis on mentorship, self-reflection, and emotional intelligence, which will better equip students with the competencies necessary for success in their professional careers. The findings of this research provide valuable insights for curriculum designers, educators, and policymakers seeking to enhance the quality of education and the professional preparation of future specialists in these fields.

Further research could explore the long-term impact of these educational strategies on graduates' professional practice and their ability to adapt to the evolving demands of the workforce. Additionally, future studies could examine the effectiveness of specific teaching methods in different educational contexts and cultural settings to broaden the applicability of these findings.

References

- Becher, T., & Trowler, P. R. (2001). *Academic Tribes and Territories: Intellectual Enquiry and the Culture of Disciplines*. McGraw-Hill Education.
- Biggs, J., & Tang, C. (2011). *Teaching for Quality Learning at University* (4th ed.). Open University Press.
- Boud, D., & Walker, D. (1998). Promoting Reflection in Professional Courses: The Challenge of Context. *Studies in Higher Education*, 23(2), 191–206. <https://doi.org/10.1080/03075079812331380384>
- Brown, G., & Atkins, M. (1988). *Effective Teaching in Higher Education*. Routledge.
- Carless, D. (2015). The Role of Reflection in Developing Professional Competence in Higher Education. *Journal of Further and Higher Education*, 39(4), 481–496. <https://doi.org/10.1080/0309877X.2013.790458>
- Dewey, J. (1933). *How We Think*. D.C. Heath & Co.
- Eraut, M. (2004). Informal Learning in the Workplace. *Studies in Continuing Education*, 26(2), 247–273. <https://doi.org/10.1080/0158037042000227570>
- Goleman, D. (1995). *Emotional Intelligence: Why It Can Matter More Than IQ*. Bantam Books.
- Hargreaves, A., & Fink, D. (2006). *Sustainable Leadership*. Jossey-Bass.
- Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Prentice-Hall.
- Leathwood, C., & O'Connell, P. (2003). *Researching Higher Education: A Guide for New Researchers*. RoutledgeFalmer.
- McPeck, J. (1981). *Critical Thinking and Education*. St. Martin's Press.
- Moon, J. (2004). *A Handbook of Reflective and Experiential Learning: Theory and Practice*. RoutledgeFalmer.
- Schön, D. A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. Basic Books.
- Van Manen, M. (1995). *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*. Althouse Press.
- Weimer, M. (2013). *Learner-Centered Teaching: Five Key Changes to Practice* (2nd ed.). Jossey-Bass.
- Wilson, L. O. (2014). Developing Professional Competence in Higher Education: A Holistic Approach. *Journal of Education and Practice*, 5(20), 47–55.
- Yorke, M. (2006). *Employability in Higher Education: What It Is – What It Is Not*. Learning and Employability Series One. Higher Education Academy.