INTERNATIONAL JOURNAL OF TECHNOLOGY AND ACADEMIC RESEARCH

ISSN: 2224-6878 | Pakistan Volume 6, No. 10.

IF: 14.91 | 2026 http://waerasia.org/index.php/ijtar

PSYCHOLOGICAL AND PEDAGOGICAL ASPECTS OF ADAPTING FUTURE TEACHERS TO THE DUAL EDUCATION ENVIRONMENT

Ulug'bek Urakovich Turamuratov
, Lecturer at the Department of Pedagogy,
Termez State Pedagogical Institute.
doi:https://doi.org/10.5281/zenodo.23166224

Abstract: The development of dual education creates new opportunities for improving the professional preparation of future teachers by combining theoretical education with practical professional experience. At the same time, adaptation to a dual education environment requires future teachers to develop psychological readiness, professional motivation, communication skills, self-regulation, responsibility, and the ability to apply theoretical knowledge in real educational situations. This article examines the psychological and pedagogical aspects of adapting future teachers to dual education. Particular attention is given to professional identity, motivation, emotional readiness, mentoring, communication, reflective learning, and gradual integration into professional activity. The article emphasizes that effective adaptation requires coordinated cooperation between higher education institutions, practice-based educational organizations, mentors, and students. A supportive psychological environment, constructive feedback, individual support, and gradual expansion of professional responsibilities can reduce adaptation difficulties and strengthen professional confidence. The integration of theoretical and practical preparation through dual education contributes to the formation of teachers who are professionally competent, reflective, adaptable, and prepared for the changing requirements of contemporary education.

Keywords: dual education, future teachers, professional adaptation, psychological readiness, pedagogical adaptation, professional identity, motivation, mentoring, practical training, reflection.

Introduction

The modernization of education requires the preparation of teachers who are capable of combining strong theoretical knowledge with practical professional competence. Contemporary teachers are expected not only to understand the content of their subjects but also to organize learning activities, communicate effectively with students, use modern educational technologies, assess learning outcomes, manage classroom situations, cooperate with colleagues and parents, and respond flexibly to individual learner needs. These competencies cannot be developed sufficiently through theoretical education alone. Therefore, the integration of academic learning and practical professional preparation has become an important direction in teacher education.

Dual education provides an opportunity to combine theoretical preparation in an educational institution with systematic practical activity in a professional environment. For future teachers, this model makes it possible to become familiar with the real conditions of educational work during the period of study. Students can observe experienced teachers, participate in lesson preparation, communicate with learners, conduct individual educational activities, and gradually perform more complex professional tasks.

However, entering a professional environment is not always psychologically easy for students. The transition from the role of a learner to the role of a future professional can be accompanied by uncertainty, anxiety, lack of confidence, communication difficulties, and fear of making mistakes. Students may discover that real pedagogical situations are more complex than

ISSN: 2224-6878 | Pakistan Volume 6, No. 10.

IF: 14.91 | 2026 http://waerasia.org/index.php/ijtar

the situations described in theoretical materials. Therefore, successful participation in dual education requires purposeful psychological and pedagogical adaptation.

Professional adaptation can be understood as a gradual process through which an individual acquires the knowledge, behavioral patterns, communication skills, professional values, and emotional stability necessary for effective activity in a particular professional environment. In teacher education, adaptation involves understanding the responsibilities of a teacher, learning to communicate with students and colleagues, accepting professional standards, developing pedagogical confidence, and applying theoretical knowledge to practical situations.

The purpose of this article is to examine the main psychological and pedagogical aspects of adapting future teachers to a dual education environment and to identify conditions that can support their professional development.

Psychological Readiness of Future Teachers

Psychological readiness is one of the most important conditions for successful adaptation to practical pedagogical activity. A student may possess sufficient theoretical knowledge but still experience difficulty when required to use that knowledge in a real classroom. The presence of learners, unexpected questions, classroom-management problems, time limitations, and professional expectations can create psychological pressure.

Psychological readiness includes emotional stability, confidence, self-control, willingness to accept responsibility, communication readiness, and the ability to learn from professional difficulties. A future teacher should understand that professional competence develops gradually. Initial mistakes should not automatically be interpreted as evidence of professional failure. They should be considered opportunities for identifying areas that require further development.

Professional self-confidence develops through experience. When students successfully complete relatively simple professional tasks, they gain confidence and become prepared for more complex activities. Therefore, the practical component of dual education should be organized progressively. Observation can be followed by participation, assisted teaching, and later independent activity under appropriate supervision.

An important psychological factor is self-efficacy. Future teachers need to believe that they are capable of organizing learning, communicating with students, solving pedagogical problems, and improving their own performance. Self-efficacy is strengthened when students receive realistic tasks, constructive feedback, and opportunities to experience successful professional activity.

Professional Motivation and Identity

Motivation determines the degree to which future teachers actively participate in dual education. Students who understand the social significance of teaching and recognize the relationship between current learning and future professional activity are more likely to approach practical training as an opportunity for development.

Professional motivation can be connected with interest in teaching, desire to work with young people, interest in a particular academic subject, personal development, social responsibility, and future employment. The role of higher education institutions is to help students understand that teaching is not limited to delivering information. It involves supporting learner development, creating educational opportunities, and participating in the intellectual and social development of society.

Dual education can contribute to the development of professional identity. Professional identity reflects how a person understands the teaching profession and perceives their own future role within it. Through direct experience, students begin to understand the actual responsibilities of teachers and compare their personal expectations with professional realities.

ISSN: 2224-6878 | Pakistan Volume 6, No. 10.

IF: 14.91 | 2026 http://waerasia.org/index.php/ijtar

Interaction with experienced teachers is particularly important for professional identity formation. Students can observe how experienced teachers organize lessons, communicate with learners, manage unexpected situations, and cooperate with colleagues. However, the goal should not be simple imitation. Future teachers need to analyze observed practices and gradually develop their own professional approach.

Professional identity is also based on values. Respect for students, fairness, responsibility, cooperation, tolerance, professional ethics, and continuous learning should become meaningful through practical experience. Dual education creates opportunities for students to encounter situations in which these values influence real professional decisions.

Communication as a Component of Adaptation

Teaching is a profession based on communication. Future teachers interact with students, colleagues, administrators, parents, and other participants in the educational process. Therefore, communication adaptation is an essential component of professional preparation.

At the beginning of practical training, some students may feel uncomfortable communicating with experienced teachers. They may hesitate to ask questions or express uncertainty. A supportive environment should encourage students to seek clarification and discuss professional difficulties. Asking questions should be regarded as a normal part of professional learning.

Communication with students requires a combination of clarity, respect, empathy, and professional boundaries. Future teachers need to learn how to formulate instructions, listen to learners, respond to questions, resolve disagreements, and maintain constructive interaction.

Social adaptation also involves understanding the organizational culture of an educational institution. Each school has particular traditions, communication practices, professional expectations, and organizational procedures. Familiarization with these characteristics helps students feel more secure and understand their responsibilities.

The mentor plays an important role in this process. A mentor can explain professional expectations, demonstrate appropriate communication, observe the student's activity, and provide recommendations for improvement.

Mentoring and Pedagogical Support

Mentoring is one of the most effective mechanisms for supporting future teachers during practical preparation. An experienced teacher can help students connect theoretical knowledge with classroom practice and understand professional requirements.

The mentor should not function only as an evaluator. The mentor should also act as a guide and professional model. Observation of experienced teachers allows students to see how theoretical principles are applied in real situations.

Constructive feedback is an important element of mentoring. Feedback should identify both successful aspects and areas requiring improvement. It should be specific and provide practical recommendations. General statements about whether a student is “good” or “bad” are less useful than explanations of particular actions and their consequences.

For example, if a student has difficulty managing classroom attention, the mentor can analyze the situation together with the student and discuss possible methods of improving instructions, lesson structure, questioning techniques, or learner involvement. In this way, a practical difficulty becomes a learning opportunity.

Mentoring should also gradually develop student independence. Excessive supervision may prevent the development of professional responsibility, while insufficient supervision may create unnecessary psychological pressure. The appropriate balance is achieved by increasing responsibility as the student's competence develops.

ISSN: 2224-6878 | Pakistan Volume 6, No. 10.

IF: 14.91 | 2026 http://waerasia.org/index.php/ijtar

Pedagogical Conditions of Effective Adaptation

Several pedagogical conditions are important for successful adaptation to dual education.

The first is continuity between theoretical and practical education. Students should understand how concepts studied at university are related to practical pedagogical situations. This connection makes theoretical knowledge more meaningful.

The second is gradual integration into professional activity. At the beginning, students can observe lessons and participate in limited tasks. Later, they can prepare individual activities and conduct parts of lessons before moving toward greater independence.

The third condition is regular feedback. Students need information about their progress throughout the learning process rather than only at the end of practical training.

The fourth condition is individual support. Future teachers differ in their previous experience, communication abilities, motivation, and adaptation speed. Therefore, support should consider individual needs.

The fifth condition is reflective learning. Students should analyze their practical experiences and identify what was successful, what difficulties appeared, and how future actions can be improved.

The sixth condition is cooperation between universities and practice-based educational organizations. Academic teachers and professional mentors should coordinate expectations and responsibilities so that students receive consistent guidance.

The seventh condition is psychological safety. Students should be able to acknowledge difficulties and ask for assistance without unnecessary fear. A psychologically supportive environment encourages initiative and professional learning.

Challenges of Adaptation

Despite its advantages, dual education can create several adaptation challenges. One of them is the difference between theoretical expectations and real classroom conditions. Students may initially imagine teaching as a relatively predictable activity, while real classrooms involve different levels of motivation, abilities, behavior, and learning needs.

Another challenge is workload. Future teachers have to combine academic assignments with practical responsibilities. Poorly coordinated schedules can lead to fatigue and reduced motivation. Therefore, dual education programs should take into account students' available time and cognitive resources.

Communication difficulties may also affect adaptation. Some students may possess strong academic knowledge but lack confidence in public speaking or classroom interaction. Others may communicate well but require additional support in lesson planning or assessment.

Fear of mistakes is another important difficulty. If students believe that every mistake will result in negative judgment, they may avoid initiative. A professional learning environment should instead encourage students to analyze mistakes and use feedback for improvement.

Emotional regulation is especially important in teaching. Future teachers should learn how to remain constructive in stressful situations, respond calmly to unexpected classroom behavior, and distinguish between emotional reactions and objective professional problems.

Reflective Learning and Self-Regulation

Reflection allows future teachers to transform practical experience into professional knowledge. After a lesson or professional task, students can analyze what they planned, what actually happened, which methods were effective, and what should be changed.

Reflective practice can be organized through professional diaries, portfolios, self-assessment, peer discussion, and post-lesson analysis. Such activities encourage students to take responsibility for their professional development.

ISSN: 2224-6878 | Pakistan Volume 6, No. 10.

IF: 14.91 | 2026 http://waerasia.org/index.php/ijtar

Self-regulation is closely connected with reflection. Future teachers need to manage their time, attention, emotions, learning activities, and professional responsibilities. They should learn to set goals, plan tasks, monitor progress, and adjust their strategies.

For example, if a student notices that learners become less engaged during lengthy explanations, reflection can help identify the reasons and consider alternative approaches such as discussion, questioning, practical tasks, or collaborative activities. Thus, reflection converts an ordinary classroom difficulty into a professional learning experience.

Collaborative Learning

Collaboration among future teachers can also support adaptation. Students can exchange experiences, discuss practical difficulties, prepare lessons together, and provide peer feedback.

Peer learning creates opportunities to see different approaches to the same pedagogical problem. A student may discover that a difficulty experienced during practical training is common among other trainees. This can reduce feelings of isolation and encourage constructive problem solving.

Collaborative activities also prepare future teachers for professional teamwork. Modern educational institutions require cooperation among teachers, administrators, psychologists, parents, and other specialists. Therefore, the ability to work effectively in a professional team should be developed during teacher preparation.

University and Practice-Base Cooperation

Effective dual education requires close cooperation between higher education institutions and practice-based organizations. The university provides theoretical and methodological preparation, while the practice base provides opportunities for authentic professional experience.

Responsibilities should be clearly distributed. University instructors should monitor academic progress and provide methodological guidance. Practice-based mentors should support professional activity and provide feedback. Students should actively participate in both components and take responsibility for their own development.

Regular communication between university instructors and mentors can help identify adaptation problems at an early stage. If a student experiences difficulties in classroom management, communication, planning, or professional organization, coordinated support can be provided.

Assessment of Professional Adaptation

Assessment in dual education should include both theoretical knowledge and practical competence. Traditional examinations alone cannot fully demonstrate a student's readiness for professional activity.

Practical assessment may include lesson observation, analysis of lesson plans, teaching materials, professional portfolios, mentor feedback, reflective reports, and self-assessment. These methods provide a broader understanding of professional development.

Assessment criteria should be clear and understandable. Students need to know which competencies are expected and what indicators demonstrate progress. Transparent assessment reduces uncertainty and helps students focus their efforts.

Formative assessment is particularly valuable because it provides information during the learning process. It allows students to correct weaknesses before final assessment and supports continuous professional development.

Recommendations for Improving Adaptation

The adaptation of future teachers to dual education can be improved through several measures. First, an introductory program should be organized before students begin practical

ISSN: 2224-6878 | Pakistan Volume 6, No. 10.

IF: 14.91 | 2026 http://waerasia.org/index.php/ijtar

activity. It should explain professional expectations, organizational procedures, ethical principles, communication standards, and common challenges.

Second, practical responsibilities should increase gradually. Students should first observe and assist, then perform individual tasks, and eventually undertake more independent teaching activities.

Third, mentoring should be systematically organized. Practice bases should identify qualified teachers who can provide consistent guidance.

Fourth, reflective activities should be integrated into practical education. Students should regularly analyze their experiences and develop individual improvement plans.

Fifth, psychological support should be available when students experience excessive anxiety or serious adaptation difficulties.

Sixth, academic and practical workloads should be coordinated to prevent unnecessary overload.

Seventh, students should be encouraged to participate in peer learning and professional discussions.

Eighth, assessment should consider both achievement and professional progress. Recognition of improvement can strengthen motivation and encourage continued development.

Conclusion

The adaptation of future teachers to a dual education environment is a complex psychological and pedagogical process. It includes the development of professional motivation, psychological readiness, communication competence, professional identity, self-regulation, practical skills, and responsibility.

Dual education provides important opportunities for connecting theoretical knowledge with real professional experience. However, students may encounter uncertainty, anxiety, communication difficulties, workload problems, and fear of mistakes during the adaptation process. These difficulties can be reduced through systematic mentoring, constructive feedback, gradual professional integration, reflection, and psychological support.

The mentor has a particularly important role in helping future teachers understand professional expectations and develop confidence. At the same time, mentoring should gradually lead students toward independent professional decision-making.

Reflective learning also represents an important mechanism of adaptation. Through reflection, students can evaluate their experiences, identify difficulties, understand their causes, and develop strategies for improvement. This contributes not only to practical competence but also to the formation of a reflective professional identity.

Successful dual teacher education requires cooperation between universities and educational organizations. Coordinated responsibilities, clear assessment criteria, appropriate workloads, and regular communication can create favorable conditions for professional development.

Thus, psychological and pedagogical adaptation should be considered an integral part of dual teacher education. A properly organized adaptation process allows future teachers to move gradually from theoretical learning toward independent professional activity and prepares them to respond effectively to the changing demands of contemporary education.

References

1. Bandura A. Self-Efficacy: The Exercise of Control. New York: W.H. Freeman and Company, 1997.
2. Dewey J. Experience and Education. New York: Macmillan, 1938.
3. Eraut M. Developing Professional Knowledge and Competence. London: Falmer Press, 1994.

ISSN: 2224-6878 | Pakistan Volume 6, No. 10.

IF: 14.91 | 2026 http://waerasia.org/index.php/ijtar

4. Feiman-Nemser S. From Preparation to Practice: Designing a Continuum to Strengthen and Sustain Teaching. Teachers College Record, 2001.
5. Kolb D.A. Experiential Learning: Experience as the Source of Learning and Development. Englewood Cliffs: Prentice Hall, 1984.
6. Lave J., Wenger E. Situated Learning: Legitimate Peripheral Participation. Cambridge: Cambridge University Press, 1991.
7. Schön D.A. The Reflective Practitioner: How Professionals Think in Action. New York: Basic Books, 1983.
8. Shulman L.S. Those Who Understand: Knowledge Growth in Teaching. Educational Researcher, 1986.
9. Tynjälä P. Perspectives into Learning at the Workplace. Educational Research Review, 2008.
10. Wenger E. Communities of Practice: Learning, Meaning, and Identity. Cambridge: Cambridge University Press, 1998.