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IMPROVING THE PRACTICAL TRAINING OF FUTURE TEACHERS IN COLLABORATIVE LEARNING AS A PSYCHOLOGICAL PROBLEM

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Abstract: This study is dedicated to the analysis of psychological barriers that hinder the effective practical training of future teachers in collaborative learning between KSU and YKSG. The main focus is on problems such as stress caused by intercultural differences, decreased motivation, and anxiety, as well as the development of strategies to overcome them. An experiment involving 70 students showed that the implementation of psychological support (training, reflection) significantly reduces stress and increases motivation, contributing to the development of general professional competencies. The results emphasize the importance of psychological support in intercultural educational programs and offer recommendations for integrating such measures into the curriculum.

Keywords: psychological barriers, practical training, collaborative learning, motivation, stress, pedagogical education, intercultural interaction

INTRODUCTION

The practical training of future teachers is a key component of pedagogical education, ensuring the development of skills necessary for professional activity, such as classroom management, lesson planning, and student interaction. In the context of collaborative learning between Kokand State University (KSU) and Yanka Kupala State University of Grodno (YKSG), which began in 2023, practical training is complicated by psychological barriers such as stress from

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intercultural interaction, decreased motivation due to linguistic and methodological differences, and anxiety associated with performing complex tasks in an international environment.

Psychological aspects play an important role in the educational process. According to Maslow's theory (1954), motivation is the foundation of successful learning, and stress can block cognitive and professional achievements. Research by Lazarus and Folkman (1984) emphasizes that stress caused by new situations, such as intercultural interaction, requires adaptive strategies (coping strategies). In the context of collaborative learning between Uzbekistan and Belarus, where students face cultural, linguistic, and organizational differences, psychological problems become a significant obstacle. However, there is a lack of research on these issues in inter-university programs of post-Soviet countries, which makes this work relevant.

Purpose of the study: To identify psychological barriers that hinder the effective practical training of future teachers in collaborative learning and to evaluate the impact of psychological support on overcoming them.

Research Objectives:

* To identify the main psychological barriers (stress, anxiety, motivation) in joint practice.

* To implement psychological support modules (trainings, reflection) into the learning process.

* To evaluate the impact of these measures on students' general professional competencies and psychological state.

Hypothesis: The implementation of psychological support will reduce stress by 20% and increase motivation by 25%, which will improve general professional competencies by 15-20%.

Significance of the study: The results will allow for the development of recommendations for integrating psychological support into international educational programs, increasing the effectiveness of teacher training in Uzbekistan and Belarus.

METHODS

Participants: The study was conducted from September 2024 to May 2025 with the participation of 70 students from pedagogical faculties: 35 students from KSU (philology, mathematics) and 35 from YKSG (foreign languages, history). The average age was 21, and the gender distribution was 60% female and 40% male. The sample was randomly formed, taking into account the experience of pedagogical practice (at least 1 semester).

Study Design: Quasi-experimental, with a division into an experimental group (50 students receiving psychological support) and a control group (20 students without support). Collaborative learning included online sessions via Zoom (twice a week for 90 minutes), asynchronous assignments in Moodle, and two in-person seminars (5 days each in Kokand and Grodno).

Data collection tools:

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* Psychological tests: Motivated Strategies for Learning Questionnaire (MSLQ, Pintrich et al., 1991) for...

* Questionnaires: Based on the UNESCO competency scale (2017) for general professional skills (communication, leadership, classroom management; 20 questions, 1-5 Likert scale). EFSET for specific competencies (teaching methods, subject-specific skills; 100 points). Intercultural Competence Scale (Deardorff, 2006; 15 questions, 1-5 scale).

* Psychological tests: Motivation Scale (MSLQ, Pintrich et al., 1991; 15 questions, 1-7 scale). Perceived Stress Scale (PSS, Cohen et al., 1983; 10 questions, 0-4 scale).

* Case studies: 10 assignments focused on intercultural interaction (e.g., developing a math lesson that accounts for Uzbek and Belarusian traditions).

* Interviews: Semi-structured, with 30 students (15 from each university) to evaluate their perception of digital and intercultural modules.

* Portfolios: Analysis of 120 works (lesson plans, Canva presentations, reflective essays).

* Observation: Analysis of 15 sessions (video recordings, protocols).

Research Procedure:

* September 2024: Pre-testing (questionnaires, EFSET, psychological tests).

* October 2024 - March 2025: Implementation of modules.

* ICT: Google Workspace (Docs, Slides) for collaboration, Canva for lesson visualization, Moodle for asynchronous assignments.

* Intercultural approaches: role-playing games (e.g., "teacher in a multicultural school"), case studies (solving classroom conflicts).

* Psychological support: stress management training (4 sessions, mindfulness), reflective discussions (6 meetings).

* April 2025: Post-testing, interviews.

* May 2025: Data analysis.

Data Processing: Quantitative data were analyzed using ANOVA and Pearson's correlation analysis in SPSS ($p<0.05$). Qualitative data (interviews, essays) were processed using thematic analysis in NVivo. Ethical aspects: informed consent was obtained, and data was anonymized.

RESULTS

Initial level:

* Experimental group: general professional competencies - 3.5 (out of 5), specific - 65 (out of 100), intercultural competence - 3.4 (out of 5), motivation - 4.6 (out of 7), stress - 2.8 (out of 4).

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* Control group: general professional - 3.4, specific - 64, intercultural - 3.3, motivation - 4.5, stress - 2.7 (t=0.35-0.44, p>0.05, differences are insignificant).

After the experiment:

* Experimental group: general professional competencies - 4.6 (+31%), specific - 85 (+31%), intercultural - 4.5 (+32%), motivation - 6.0 (+30%), stress - 2.1 (-25%).

* Control group: general professional - 3.7 (+9%), specific - 70 (+9%), intercultural - 3.6 (+9%), motivation - 4.8 (+7%), stress - 2.6 (-4%).

* ANOVA: F=13.2-15.7, p<0.01 (significant differences).

Table 1: Indicator Dynamics

Indicator	Pre-test (Exp.)	Post-test (Exp.)	Pre-test (Cont.)	Post-test (Cont.)
General Professional	3.5	4.6	3.4	3.7
Specific (EFSET)	65	85	64	70
Intercultural Competence	3.4	4.5	3.3	3.6
Motivation (MSLQ)	4.6	6.0	4.5	4.8
Stress (PSS)	2.8	2.1	2.7	2.6

Qualitative data (thematic analysis):

* Barriers:

  * Technical problems (15% of KSU students reported unstable internet).

  * Language difficulties (60% KSU, 40% YKSG).

  * Intercultural misunderstandings (50% mentioned differences in expectations).

* Module effects:

  * 90% of students noted an increase in confidence in digital skills.

  * 85% reported an improvement in intercultural communication.

  * 80% noted a reduction in stress due to the training sessions.

* Correlation between ICT use and competencies: r=0.82, p<0.01; intercultural modules and stress: r=-0.78, p<0.01.

* Details:

  * KSU: the largest increase was in communication (+33%) and teaching methods (+35%).

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* YKSG: improvement in leadership (+30%) and intercultural attitudes (+32%).

* The overall increase in competencies (31-32%) and decrease in stress (-25%) confirmed the hypothesis.

DISCUSSION

The results demonstrate that digital transformation through the integration of ICT and intercultural approaches significantly enhances professional competencies and reduces psychological barriers in collaborative learning. This is consistent with Siemens' (2005) theory of connectivism, where digital networks enhance collaboration, and Byram's (1997) model of intercultural competence. Psychological support, based on Lazarus and Folkman (1984), helped KSU students overcome language and cultural barriers, while YKSG brought an analytical approach, enriching the process.

Limitations:

* Unequal access to ICT (10% of KSU students).

* Differences in language proficiency.

* Short duration of in-person meetings (10 days).

Recommendations:

* Integrate ICT and intercultural modules into the curricula.

* Provide technical support (internet, licenses).

* Expand psychological training.

Future research:

* Long-term effects on careers.

* Comparison with other regions.

* The impact of new technologies (AI, VR).

CONCLUSION

In conclusion, the study convincingly shows that digital transformation in collaborative learning between KSU and YKSG, based on the integration of ICT (Google Workspace, Canva, Moodle) and intercultural approaches (case studies, role-playing games), is a powerful tool for forming professional competencies of future teachers, with an increase of 31-32% and a decrease in stress by 25%. In summary, digital technologies, enhanced by intercultural interaction and psychological support, transform pedagogical education, making it more adaptable to global challenges such as digitalization, migration, and multiculturalism.

Summarizing the experience of the two universities, ICT creates an infrastructure for knowledge exchange, where KSU students contribute practice-oriented ideas, and YKSG

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contributes theoretical depth, forming a model that aligns with UNESCO and Bologna Process standards. For example, joint projects in Canva allowed students to visualize lessons that reflect the cultural characteristics of both countries, and mindfulness training reduced stress from intercultural differences. In the long term, such a model can become the basis for creating international educational networks, uniting universities in the post-Soviet space and beyond. For sustained success, it is necessary to overcome limitations, such as unequal access to technology and language barriers, through investments in infrastructure and teacher training. Ultimately, the study emphasizes that digital transformation in collaborative learning not only develops competencies but also contributes to the formation of a global pedagogical community, where teachers become agents of cultural dialogue and innovation, ready for the challenges of the 21st century.

References:

1. * Siemens, G. (2005). Connectivism: A Learning Theory for the Digital Age. International Journal of Instructional Technology and Distance Learning, 2(1).
2. * Byram, M. (1997). Teaching and Assessing Intercultural Communicative Competence. Multilingual Matters.
3. * OECD. (2019). Digital Education Outlook. OECD Publishing.
4. * Lazarus, R.S., & Folkman, S. (1984). Stress, Appraisal, and Coping. Springer.
5. * Deardorff, D.K. (2006). Identification and Assessment of Intercultural Competence. Journal of Studies in International Education, 10(3), 241-266.
6. * Pintrich, P.R., et al. (1991). A Manual for the Use of the Motivated Strategies for Learning Questionnaire (MSLQ). University of Michigan.
7. * Cohen, S., et al. (1983). A Global Measure of Perceived Stress. Journal of Health and Social Behavior, 24(4), 385-396.
8. * Ubaydullayeva Kamolaxon Numanovna Факторы влияющие на развитие стрессоустойчивости у студентов магистратуры. Journal of international scientific research. Vol.2 No/ 4(2025) https://spaceknowladge.com/index.php/JOISR/article/view/1083/
9. * Ubaydullayeva Kamolaxon Numanovna Психологические особенности жизнестойкости личности в условиях стрессовых ситуаций. Modern problems in education and their scientific solutions/// Top izlanuvchi 2025 INTERNATIONAL COMPETITION. https://sg.docworkspace.com/d/sICnuu7jGAeujwcUG//
10. * Ubaydullayeva Kamolaxon Numanovna ОТ ВЫЗОВА К РЕСУРСУ: ПСИХОЛОГИЧЕСКАЯ РОЛЬ ЖИЗНЕСТОЙКОСТИ В ТРАНСФОРМАЦИИ СТРЕССОВЫХ СИТУАЦИЙ //INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE "SOLUTIONS TO CURRENT ISSUES IN PSYCHOLOGICAL SCIENCE BASED ON INTERNATIONAL EXPERIMENTS" MAY 14-15, 2025. https://doi.org/10.5281/zenodo.15509609/