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SPECIFIC FEATURES OF THE TECHNOLOGICAL APPROACH IN TEACHERS' PROFESSIONAL ACTIVITIES

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Abstract: This article examines the specific features of organizing teachers' professional activities through a technological approach, teachers' understanding of this approach, and the factors that contribute to the development of professional competence. The study employed observation, questionnaires, interviews, and an experimental research method. A total of 300 teachers participated and were divided into three groups according to their length of service and professional proficiency. The findings reveal differences among early-career, experienced, and highly proficient teachers in their understanding of the technological approach, self-assessment of professional activities, and perceptions of the factors underlying teaching success. The use of advanced pedagogical technologies, continuous professional development, analysis of pedagogical situations, and the establishment of meaningful psychological and interpersonal relationships with students emerge as important characteristics of highly proficient teachers.

Keywords: technological approach, teaching proficiency, teachers' professional activities, advanced pedagogical technologies, professional development, pedagogical analysis, self-assessment, educational process.

Introduction: The improvement of educational quality is directly related to teachers' professional knowledge, methodological competence, and ability to organize the educational process purposefully. In contemporary education, teachers are expected not only to deliver subject content but also to design lessons in advance, define expected learning outcomes, analyze educational situations, and ensure students' active participation. A technological approach is important for carrying out these tasks consistently.

A technological approach involves organizing teaching on the basis of clearly defined objectives, a planned process, appropriate methods and tools, and assessable outcomes. It enables teachers to analyze their own practice, identify shortcomings, and continuously improve the educational process.

Research aim and methods

The purpose of the study is to identify how a technological approach is manifested in teachers' professional activities, analyze differences in how teachers with varying levels of professional experience understand and apply this approach, and determine the factors that contribute to the development of teaching proficiency.

The study involved 300 teachers: 158 early-career teachers with up to five years of service, 122 experienced teachers with up to 15 years of service, and 20 highly proficient teachers selected by experts. Observation, questionnaires, interviews, and an experimental research method were used to collect information. An additional comparative analysis of perceptual aspects involved 10 experienced teachers and 10 highly proficient teachers.

Results and discussion Teachers' attitudes towards the technological approach

Teachers' self-assessments were found to vary according to professional experience. Although many early-career teachers aspired to use a technological approach, 59.0% reported that they had not yet been able to organize their work fully on this basis. A further 16.4% believed that they probably used such an approach, while 17.0% found it difficult to answer. Among highly proficient teachers, 75.0% stated clearly that they worked on the basis of a technological approach.

Teachers' responses	Up to 5 years (%)	Up to 15 years (%)	Highly proficient (%)
I work on the basis of a technological approach	2.5	16.5	75.0
I think I work on the basis of a technological approach	16.4	41.6	20.0
Despite my efforts, my work does not fully follow this approach	59.0	5.2	5.0
I do not think I can work on this basis	5.1	31.0	—
I find it difficult to answer	17.0	5.7	—

Self-assessment results were also compared with expert opinions. Experts classified 60.8% of early-career teachers as attempting to use a technological approach, although their efforts did not always produce the expected results. Among highly proficient teachers, 51.1% were assessed as unquestionably working on this basis. These findings demonstrate the importance of considering the difference between teachers' subjective self-assessments and external expert evaluations.

Expert assessment	Up to 5 years (%)	Up to 15 years (%)	Highly proficient (%)
Unquestionably works on a technological basis	1.3	9.5	51.1
Generally works on a technological basis	8.2	41.9	23.5
Makes an effort, but practice is not always technological	60.8	22.8	22.4
Probably cannot work on a technological basis	9.6	12.3	2.0
Difficult to assess	20.1	13.5	1.0

Understanding the essence of the technological approach

Respondents interpreted the essence of the technological approach in different ways. Knowledge of subject-teaching methods and instructional technologies was identified as important in all groups: 45.0% of early-career teachers, 46.1% of experienced teachers, and 53.6% of highly proficient teachers selected this aspect. Highly proficient teachers also placed greater emphasis on aligning objectives with expected outcomes (34.1%).

Understanding of the technological approach	Up to 5 years (%)	Up to 15 years (%)	Highly proficient (%)
Knowledge of subject-teaching technology and methodological competence	45.0	46.1	53.6
Correctly aligning objectives and outcomes	15.0	16.3	34.1

In-depth analysis of pedagogical situations	27.1	6.1	5.0
Appropriate application of psychological and pedagogical knowledge	1.9	6.5	15.0
Ability to design a lesson	1.1	7.2	16.0
Understanding students and establishing an emotional connection with them	—	—	10.0

Factors contributing to successful teaching

Professional knowledge, advanced pedagogical technologies, solving problems through a technological approach, and continuous self-improvement were among the key factors associated with successful teaching. In the group of highly proficient teachers, 60.0% identified the use of advanced pedagogical technologies, solving professional problems through a technological approach, and continuous self-development as important factors. In addition, 56.0% emphasized periodic professional retraining, 50.0% communication with parents, and 40.0% meaningful relationships with students.

Factors of teaching success	Up to 5 years (%)	Experienced (%)	Highly proficient (%)
In-depth subject knowledge	45.8	35.6	35.0
Solving work-related problems through a technological approach	28.4	41.9	60.0
Research activities	10.0	26.8	35.0
Advanced pedagogical technologies	36.5	45.5	60.0
Continuous self-development	29.3	50.3	60.0
Periodic professional retraining	23.6	49.5	56.0
A supportive teaching community	31.4	29.5	25.0
Having ample free time	12.7	8.1	3.1
Mental and psychological well-being	15.7	23.1	25.0
Salary and material incentives	51.3	46.5	34.1
Communication with parents	43.4	49.8	50.0
Meaningful relationships with students	20.7	29.2	40.0
Other factors	3.0	2.4	5.0

Note: Respondents were allowed to identify only the three factors they considered most important. Therefore, the percentages do not add up to 100%.

Comparative analysis of experienced and highly proficient teachers

No substantial differences were identified between experienced and highly proficient teachers in such aspects as lesson planning and delivery, problem-based presentation of new material, involving students in learning activities, using pedagogical technologies, consolidating knowledge, and applying technical teaching aids. Representatives of both groups demonstrated strong subject knowledge and sound methodological preparation.

The main difference concerned the ability to analyze pedagogical situations in depth, critically evaluate one's own practice, and compare it with the work of colleagues. Highly proficient teachers demonstrated a more precise perception of their strengths and weaknesses and a deeper understanding of students' needs.

To examine perceptual similarity, teachers' self-assessments were compared with assessments provided by their colleagues. According to the source table, the measure of correspondence between perceptions was 3.86 for experienced teachers and 2.65 for highly proficient teachers. The source authors interpreted this result as indicating a higher level of perceptual alignment in the highly proficient group.

Conclusion

The findings indicate that the effective use of a technological approach in teaching depends on teachers' knowledge, methodological competence, professional interest, and ability to analyze their own practice. What distinguishes highly proficient teachers is not merely their knowledge of advanced technologies, but also their ability to apply them appropriately in specific pedagogical situations, critically evaluate outcomes, and understand students as individuals.

Teacher education programmes should therefore pay particular attention to lesson design, alignment of objectives and outcomes, analysis of pedagogical situations, practical application of psychological and pedagogical knowledge, and the development of effective communication skills. Higher education institutions should create the methodological and practical conditions necessary for students' professional development, while practical teaching experience should reinforce these competencies.

Source note: The original document does not provide a bibliography, author details, or the place and date of the research. These details have therefore not been added to this article.

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