

BOLSTERING PREPAREDNESS OF A FUTURE TEACHER FOR DESIGNING ASSESSMENT TOOLS

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Abstract: The paper deals with the problem of bolstering preparedness of a future teacher for designing the assessment tools. The authors expand on the possibilities of the discipline "Modern Tools for Assessing the Learning Outcomes" as a means of bolstering the future teacher's readiness to design assessment tools, which include acquisition by students of theoretical knowledge in the field of control and assessing the learning outcomes of students, the specific aspects of educational monitoring; getting the knowledge of modern technologies, methods, tools and forms of control and assessing the learning outcomes of students; developing abilities and skills for designing assessment tools of different kinds; mastering the methods of using the monitoring and assessment data when designing an educational process.

Keywords: professional readiness, teacher, designing, assessment tools, control and assessing activity, on-the-job internship.

1 Introduction

The transformations taking place in the system of education in Russia associated with the revision of educational paradigms and the use of new approaches to learning require changes in the guidelines for preparing a future teacher capable to carry out various activities in line with professional standards. One of the most important components of the competence of a future teacher as concerns solving professional tasks of monitoring and evaluating the progress in learning outcomes of students, identification and correction of difficulties in learning is the readiness to design assessment tools.

The development and implementation of a pedagogically appropriate assessment framework is seen today as one of the key conditions for developing monitoring and assessment skills of students. In this case the assessment of students' learning outcomes is intended not to measure the formal knowledge component of the mandatory minimum educational content, but to find out students' ability to apply this minimum to solve practical-cognitive, value-oriented and communicative tasks (Buyanova & Gorshenina, 2019). Transformations in the assessment framework are focused on the student's self-esteem and personal achievements, which sparks the child's motivation in activity, promotes humanization of the system of relationships between students, and also between a teacher and students. The described realities become a beacon for the professional training of a future teacher who should possess the knowledge of modern approaches to, methods and means of assessing activity, be able to use assessment technologies in educational practice and be capable of designing assessment tools.

2 Literature Review

Attention to the problem of teacher training is not new in the psychological and pedagogical literature. Researchers put extensive efforts to explore methodological and methodical issues of bolstering the readiness of a future teacher for control and assessing activities.

The publications of recent years highlight the questions related to statement of the problem of bolstering readiness of future teachers to perform control and assessing activities, dictated by

the need to train a competent graduate who will be capable to monitor and assess the learning outcomes of students. Of particular importance in this context are the studies of foreign scientists, who pay considerable attention to elaborating the theory of assessment in education, forms and criteria of assessment (Andrade et al., 2019; Bennett, 2011; Black, 1998; Black & Wiliam, 2009; Dierick & Dochy, 2001; Guskey, 2003; Harris & Bell, 2013; Wylie & Lyon, 2016) and the questions of practice-oriented training of a teacher (Bauer et. al., 2006; Hagger & McIntyre, 2006; Huberman, 1991). In the studies of Russian scientists, the assessing function of a person is viewed from different standpoints: the role of assessment in the life of community is revealed in the works of N. A. Baturin (2008), A. A. Bodalev (1982), Yu. N. Emelyanov (1995), V. N. Kunitsyna (1995); the assessing abilities of a person and the features of their formation were analyzed by T. I. Artemieva (1977), B. M. Teplov (1961), V. D. Shadrikov (1994); the implementation of assessing activity by a teacher is presented in the works of Sh. A. Amonashvili (1984), A. B. Vorontsov (2002), G. Yu. Ksenozova (1991), A. K. Markova (1993), T. S. Polyakova (1983), N. E. Skripova, S. I., Makushina, (2017), G. A. Tsukerman (2011). According to Sh. A. Amonashvili (1984) and A. K. Markova (1993) the control and assessing framework is not oriented toward the teacher's personality, profile and specifics of the educational institution, and does not contribute to boosting creativity and reflexive position of a teacher. N. E. Skripova, I. S. Makushina (2017) analyze didactic difficulties in control and assessing activities of a primary school teacher, to which the authors refer: planning by teacher of monitoring at different stages of students' learning activity; teachers' erroneous identification of objects to be assessed; problem related to the choice of methods to assess the learning outcomes; lack of readiness to include students in the process of assessing the results of their own learning activities and difficulties in organizing activities encouraging self-assessment by students of their learning activities; insufficient use of the results of control and assessment of basic educational results for the purposes of analysis, interpretation and subsequent adjustment for planning classroom and extracurricular activities. Different directions in the teacher training for the major types of professional activities have been explored by E. V. Beloglazova et al. (2020), I. B. Buyanova et al. (2019), N. V. Vinokurova et al. (2018), N. A. Parshina et al. (2019). Analysis of literature testifies to high relevance and importance of the problem of preparing a teacher for designing assessment tools.

3 Research Methodological Framework

The purpose of this paper is to reveal potential of the discipline "Modern Tools for Assessing Learning Outcomes" in bolstering readiness of a future teacher to design the assessment tools.

Based on the stated purpose the following research objectives have been identified: consolidate the theoretical foundations for bolstering the readiness of a future teacher to design the assessment tools; assess the readiness of a future teacher to design the assessment tools; develop and implement into the teaching practice the content of the discipline "Modern Tools for Assessing the Learning Outcomes" and determine its efficiency for bolstering the readiness of a future teacher to design the assessment tools.

The experiment lasted from 2020 until 2021. The experimental research was conducted on the basis of the Mordovian State Pedagogical University named after M. E. Evseev. The experiment included 54 students of the department of physical education in the field of training Pedagogical Education, specialties Physical Education and Physical Education. Health and Safety.

The research relied on theoretical (analysis of psychological and pedagogical literature, synthesis, consolidation, systematization

of publications on the problem of training a future teacher and performance by a teacher of control and assessing, forecasting, comparing, designing functions) and empirical research methods (pedagogical experiment).

4 Results and Discussion

For solving the first task, having analyzed information sources on the research topic we determined that "the readiness of a future teacher to design assessment tools" should be understood as a complex holistic structure which forms as a result of student acquiring experience in control and assessing activities and the combination of personal and professional qualities developing on its basis enabling the effective solution of tasks related to understanding the importance and place of such activities in the holistic pedagogical process, as well as the system of pedagogical knowledge and skills in designing, developing and using various assessment tools.

Here under the assessment tools we mean dedicated methodological and monitoring-assessing materials which allow to verify with a sufficient degree of objectivity and correctness that the process and results of the learning activities of students correspond to the requirements established by the federal state standards of general education. The analysis also helped to determine the structure consisting of motivational-value, cognitive, instrumental and reflexive components and the criteria of readiness to design the assessment tools (the developed personally meaningful and relevant motives, needs and attitudes in the field of designing the assessment tools, as well as high interest in this aspect of activity; knowledge of theoretical and procedural aspects of assessment necessary to design assessment tools; readiness and ability to apply existing knowledge in pedagogical activity reflecting the accrued knowledge of the methods for designing assessment tools, represented by such skills as ability to identify purpose, objectives, object of design, designing skills, ability to assess the results of activity; ability to perform self-assessment of the designing activity with the purpose of subsequent correction), as well as pedagogical conditions of practice-oriented training of a future teacher to design assessment tools (basing on the initial level of readiness to design assessment tools; developing and implementing the content of the discipline aimed at bolstering the readiness to design assessment tools; practical experience of designing assessment tools).

For accomplishing the second objective of this research, a pedagogical experiment was organized, which covered 54 students of the Department of Physical Education pursuing studies in the field of training Pedagogical Education, specialties Physical Education and Physical Education. Health and Safety. The experimental and control groups with no significant differences in basic characteristics were made of the students participating in the experiment.

The first stage (September 2020) involved determining the baseline level of future teachers' readiness to design assessment tools based on the previously identified components of readiness by means of tests and competence-oriented tasks.

The results of the study indicate that the predominant level of future teachers' readiness to design assessment tools among students of the experimental and control groups is medium – 45.63% and 46.66%, respectively. A significant portion in both groups of students are students with a low level of readiness to design assessment tools - 39.65% of students in the experimental group and 38.69% of students in the control group. The smallest percentage are the respondents with a high level of readiness to design assessment tools - 14.72% of students in the experimental group and 14.65% of students in the control group. Students had the greatest difficulties when analyzing the instrumental component. So according to this indicator the low level is typical for 46.4% of students in the experimental group and 47.2% of students in the control group, while the high level has been demonstrated by 10.1% of the respondents from the experimental group and 10.9% from the control group. The

situation is quite expectable as one third of the students (31.4% and 30.0% from the experimental and the control groups respectively) also have a low level of the cognitive component to the readiness under scrutiny. The data obtained indicate the need for targeted work on bolstering the future teachers' readiness to design assessment tools.

For this purpose, from September 2020 to April 2021 the formative stage of the experiment was carried out, which involved development of the content and implementation of the training discipline "Modern Tools for Assessing the Learning Outcomes", included in the curriculum for the field of training 44.03.05 Pedagogical Education, specialty Physical Education. Health and Safety, and testing of the developed assessment tools during on-the-job internship intended to acquire professional skills and experience in the profession.

The total labor intensity of the discipline "Modern Tools for Assessing the Learning Outcomes" is 2 credit units, including 36 hours of classroom learning, including lectures and practical classes. The mentioned course is indented to build the readiness of future teachers to perform control and assessing activities by means of designing and applying various assessment tools. The key objectives targeted by the content of the discipline are acquisition by students of theoretical knowledge in the field of control and assessing the learning outcomes of students, the specific aspects of educational monitoring; getting the knowledge of modern technologies, methods, tools and forms of control and assessing the learning outcomes of students; developing abilities and skills for designing assessment tools of different kinds; mastering the methods of using the monitoring and assessment data when designing an educational process.

By its content the discipline has a modular structure, and consists of two modules consisting both of a theoretical block aimed to develop the cognitive component of the bolstered readiness, and the practical material which is oriented to develop the skills, convey the knowledge of methods and practical experience. The purpose of the module "Theoretical Foundations of Assessment in Education" is to build students' understanding of modern concepts and approaches to assessment of students' learning outcomes, technologies of educational monitoring and peculiarities of how to use its findings. The module "Modern Tools for Assessing the Learning Outcomes of Students" involves the study of a wide range of assessment tools used in the educational process, and the methods to design such tools. During the lectures the theoretical aspects of control and assessing activities of a teacher are explored, while the practical classes are aimed at developing the control and assessing skills through group and individual solution of situational professional tasks containing elements of assessment activities, development of pedagogically appropriate assessment judgments, creation of multilevel tasks and tests for students, designing cases, development of assessment scales, development of alternative ways of assessment. Independent work of students when studying the discipline was focused on the in-depth exploration of problems dealt with during classes, relevant to bolstering the future teachers' readiness for control and assessing activities and for designing the assessment tools. It was mostly concerned with completion of assignments related to designing the assessment tools of different types (tests, quizzes, case-study, projects on different topics, questionnaires, essays, crossword puzzles, rating scales, etc.), which make up the fund of assessment tools for the disciplines pertinent to the student's specialty - Physical Education and Health and Safety. A special attention during defense of the developed fund of assessment tools was paid to the quality of the control and assessing materials, their variety, correspondence to the requirements and possibility of their use in the educational practice. The presented results of students' activity were analyzed and discussed in detail; the materials containing inaccuracies were recommended for improvement.

Integration of theoretical and practical training and experience of professional activity was carried out during on-the-job internship dedicated to develop professional skills and experience of professional activity after learning theoretical part of the

discipline in the second semester in the fourth year of study. The program of such kind of internship included the system of assignments involving performance of control and assessing activities and including parametrical analysis of lessons of the teacher within their specialty, independent delivery of lessons and their subsequent self-analysis, check of written works of students, analysis of the school documentation concerning the aspect of control and assessing activity of the teacher, development of the plan for monitoring the learning outcomes of students on the given topic under the study program, application of assessment tools developed by the student on specific topics of the subject and conduction on their basis of the procedure for assessing the learning outcomes of students, development of a criterial framework for evaluating one of the meta-disciplinary universal learning activities of students. Thus, this internship allowed future teachers not only to apply the assessment tools developed during theoretical training, to use various technologies, methods and forms of assessment, but also by getting immersed in the quasi-professional learning activities to actualize the goals and meanings of control-assessment competence, including readiness to design assessment tools bolstered through the study of the discipline "Modern Tools for Assessing the Learning Outcomes".

The effectiveness of program developed for this discipline and tested in the educational process was assessed by measuring the readiness of future teachers to design assessment tools at the control stage of the experiment by establishing the criteria indicating correspondence of readiness to the anticipated results. The controlling stage of the experiment was carried out in April 2021 after completion of the practical training intended to develop professional skills and obtain experience in profession. Students in the experimental and control groups were offered to solve tests, complete competence-oriented assignments and take questionnaires. The students of the experimental group showed the following results: 42.17% of students have a high level of the studied readiness, which is expressed in the the developed personally meaningful and relevant motives, needs and attitudes in the field of designing the assessment tools, high interest in this aspect of activity; knowledge of theoretical and procedural aspects of assessment necessary to design assessment tools; readiness and ability to apply existing knowledge in pedagogical activity; the ability for self-assessment and self-analysis of design activity; 44.22% of respondents have a medium level of readiness to design the assessment tools and only 13.61% of respondents demonstrated the low readiness. Students in the control group showed no significant changes in these levels: a high level of readiness for designing assessment tools was shown by 15.83% of students, medium by 49.96%, and low by 34.21%.

The results indicate the effectiveness of the conducted work and the reasonableness of studying the discipline "Modern Tools for Assessing the Learning Outcomes" as part of professional training.

5 Conclusion

The conducted research led us to the following conclusions:

Practice-oriented training of a future teacher should be focused on developing the competences necessary for control and assessing activities, one component of which is the readiness to design and apply assessment tools of different types.

The readiness of a future teacher to design assessment tools represents a complex holistic structure which forms as a result of student acquiring experience in control and assessing activities and the combination of personal and professional qualities developing on its basis enabling the effective solution of tasks related to understanding the importance and place of such activities in the holistic pedagogical process, as well as the system of pedagogical knowledge and skills in designing, developing and using various assessment tools.

One of the ways to bolster the researched readiness is through studying the discipline "Modern Tools for Assessing the Learning Outcomes", representing the foundation for performing the control and assessing activities, design and implementation of various assessment tools during the on-the-job internship for gaining professional skills and experience of professional activity. Pedagogically appropriate selection of content and elaborate composition of the program ensures the achievement of the highest possible level of readiness of future teacher to design assessment tools.

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