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A METHODOLOGY FOR PREPARING FUTURE SPEECH THERAPISTS FOR INCLUSIVE ACTIVITY BASED ON AN INNOVATIVE APPROACH

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Abstract

The article provides a theoretical and practical rationale for an innovative methodology of preparing future speech therapists for professional activity in an inclusive educational environment. The content of the concept “professional readiness of a speech therapist for inclusive activity” is disclosed, and its motivational-value, cognitive, activity-technological and reflexive-communicative components are identified. The methodology developed by the author consists of target, content, technological and diagnostic-result blocks, organically combining case study, simulation-based sessions, project learning, the flipped classroom technology, as well as digital tools and artificial intelligence resources. The results of the pedagogical experiment confirm the effectiveness of the proposed methodology.

Keywords: Inclusive education, speech therapist, professional readiness, innovative approach, inclusive competence, simulation-based learning, case study, digital technologies, speech disorder.

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Annotatsiya

Maqolada boʻlajak logopedlarni inklyuziv taʼlim sharoitidagi kasbiy faoliyatga tayyorlashning innovatsion metodikasi nazariy va amaliy jihatdan asoslab berilgan. “Logopedning inklyuziv faoliyatga kasbiy tayyorgarligi” tushunchasining mazmuni ochib berilib, uning motivatsion-qadriyatli, kognitiv, faoliyatli-texnologik va refleksiv-kommunikativ komponentlari ajratilgan. Muallif tomonidan ishlab chiqilgan metodika maqsadli, mazmunli, texnologik va diagnostik-natijaviy bloklardan iborat boʻlib, unda keys-stadi, simulyatsion mashgʻulotlar, loyihaviy taʼlim, “teskari sinf” texnologiyasi hamda raqamli va sunʼiy intellekt vositalari uzviy birlashtirilgan. Tajriba-sinov natijalari taklif etilayotgan metodikaning samaradorligini tasdiqlaydi.

Kalit soʻzlar: inklyuziv taʼlim, logoped, kasbiy tayyorgarlik, innovatsion yondashuv, inklyuziv kompetentlik, simulyatsion taʼlim, keys-stadi, raqamli texnologiyalar, nutq buzilishi.

Аннотация. В статье теоретически и практически обоснована инновационная методика подготовки будущих логопедов к профессиональной деятельности в условиях инклюзивного образования. Раскрыто содержание понятия «профессиональная готовность логопеда к инклюзивной деятельности», выделены её мотивационно-ценностный, когнитивный, деятельностно-технологический и рефлексивно-коммуникативный компоненты. Разработанная автором методика включает целевой, содержательный, технологический и диагностико-результативный блоки, в которых органично сочетаются кейс-стади, симуляционные занятия, проектное обучение, технология «перевёрнутого класса», а также цифровые средства и инструменты искусственного интеллекта. Результаты опытно-экспериментальной работы подтверждают эффективность предложенной методики.

Ключевые слова: инклюзивное образование, логопед, профессиональная готовность, инновационный подход, инклюзивная компетентность,

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симуляционное обучение, кейс-стади, цифровые технологии, речевое нарушение.

Introduction

In recent years the system of inclusive education has been developing rapidly in Uzbekistan. Article 50 of the Constitution of the Republic of Uzbekistan establishes that inclusive education and upbringing shall be provided in educational institutions for children with special educational needs, while the Law “On Education” and the Concept for the Development of Inclusive Education for 2020–2025 have created the organisational and legal foundations of this process. The growing number of inclusive classes in mainstream schools sharply increases the demand for a specialist of an entirely new quality – a speech therapist capable of working within a general education environment.

The relevance of the problem lies in the fact that the traditional training system has oriented the speech therapist mainly towards work in a special institution or a separate speech therapy room, that is, within the “child – speech therapist” model. An inclusive school, however, requires completely different functions: designing an individual education programme, planning lessons jointly with the class teacher, counselling psychologists and parents, and operating as a member of a multidisciplinary team. As a result, a considerable gap emerges between the theoretical knowledge of a university graduate and their practical actions in a real inclusive environment.

Accordingly, the following contradictions have been identified: between society’s need for speech therapists ready for inclusive activity and the insufficiently developed integrated methodological support for such training in higher education; and between the availability of modern innovative and digital educational technologies and their lack of systematic implementation in the process of speech therapy training. The aim of the article is to develop a methodology for preparing future speech therapists for inclusive activity on the

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basis of an innovative approach and to substantiate its effectiveness experimentally.

Literature review

The methodological foundations of the development and socialisation of children with speech disorders originate in L.S. Vygotsky's theory of compensation and the "zone of proximal development". In his view, a defect does not determine a child's development; rather, it is compensated for through the social environment and specially organised education. This proposition constitutes the theoretical core of the inclusive approach.

The methodological foundations of speech therapy as a discipline were elaborated in the studies of R.E. Levina, T.B. Filicheva, G.V. Chirkina and others, who substantiated the classification, diagnosis and correction of speech disorders. The theory of inclusive education and the preparation of teachers for it are addressed in the works of N.N. Malofeev, S.V. Alekhina and V.V. Khitryuk; in particular, V.V. Khitryuk defines the construct of "inclusive readiness" as an integral professional and personal quality of a teacher.

At the international level, the UNESCO Salamanca Statement of 1994 established the conceptual basis of inclusive education, while the "Index for Inclusion" by T. Booth and M. Ainscow proposes criteria for assessing an educational institution from the standpoint of inclusiveness. In Uzbekistan, research in special pedagogy and speech therapy has been conducted by M.Yu. Ayupova, L.R. Muminova and other scholars.

The essence of the innovative approach in professional education is revealed in the works of G.K. Selevko, A.V. Khutorskoy and other researchers. They interpret innovation not as a change in the content of education, but as a qualitative renewal of the mode of activity of both teacher and student. It is precisely this proposition that requires transforming the future speech therapist from a passive listener into an active participant in a professional situation.

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The analysis of existing research shows that the issue of preparing mainstream teachers for inclusive education has been covered fairly extensively in the scholarly literature, whereas no integrated methodology has been developed that targets the new roles of the speech therapist specifically in an inclusive classroom – the roles of consultant, member of a multidisciplinary team and specialist working with digital tools. The present article seeks to fill this gap.

Research methodology

The study employed the following set of methods: theoretical analysis of scholarly and pedagogical literature and normative documents; content analysis of curricula and subject syllabi; modelling; questionnaires and test assignments; pedagogical observation; expert assessment; a pedagogical experiment; and mathematical and statistical processing of the results (Student's t-test, χ^2 test).

The experimental work was carried out at the Department of Pedagogy, Psychology and Sport of Bukhara University of Innovations. It involved students of the "Speech Therapy" and "Special Pedagogy" programmes: the experimental group comprised 62 students and the control group 60 students. The experiment was conducted in three stages (ascertaining, formative and final). The control group followed the traditional methodology, while the experimental group followed the innovative methodology developed by the author.

Analysis and results

Within the framework of this study, the professional readiness of a future speech therapist for inclusive activity is understood as an integral professional and personal quality that enables the specialist to carry out effective corrective and pedagogical work in a general education environment, both with a pupil who has a speech disorder and in cooperation with all the participants surrounding that pupil (teacher, psychologist, parents). The structure of this quality is presented in Table 1.

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Table 1. Components, criteria and indicators of a future speech therapist's readiness for inclusive activity

Component	Criterion	Main indicators
Motivational-value	Acceptance of inclusive values	Interest in the profession; attitude towards a child with special educational needs; tolerance; aspiration for professional growth
Cognitive	System of theoretical and methodological knowledge	Classification of speech disorders; legal framework of inclusive education; ability to design an individual education programme
Activity-technological	Practical skills and abilities	Conducting diagnostics; designing corrective sessions; use of digital and AI tools
Reflexive-communicative	Cooperation and self-assessment of one's activity	Teamwork (teacher–psychologist–parent); counselling; self-analysis

On the basis of the identified components, a structural and functional model of the training methodology was developed. It comprises four interrelated blocks: The target block defines the social demand, the requirements of the state educational standard, and the aim and objectives of forming a speech therapist ready for inclusive activity.

The content block provides for enriching the content of the subjects “Speech Therapy”, “Special Pedagogy” and “Inclusive Education” in an inclusive direction, and for introducing the special course “Inclusive Speech Therapy: Technologies of Classroom Work”.

The technological block constitutes the core of the methodology and integrates a set of innovative educational technologies: case studies based on real inclusive classroom situations; simulation-based sessions in which the roles of a pupil with a speech disorder, a teacher and a parent are played out; project assignments on developing an individual education programme; the flipped classroom technology based on independent mastery of theoretical material; the use of

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digital educational resources, speech analysis software and artificial intelligence tools; and supervision and mentoring support during practical training.

The diagnostic-result block includes the criteria for identifying levels of readiness (high, medium, low), assessment instruments and the expected outcome. A digital portfolio and situational-practical assignments were selected as the leading forms of assessment.

The methodology is implemented stage by stage: at the first (adaptive-motivational) stage, inclusive values and interest in the profession are formed in the student; at the second (technological) stage, practical skills are acquired through cases and simulations; at the third (practical-integrative) stage, the student works independently in a real inclusive classroom under the supervision of a mentor and reflexively analyses their own experience.

The results of the ascertaining stage showed that more than half of the students (50.0 %) were at a low level of readiness for inclusive activity: they possessed mainly theoretical knowledge but experienced difficulty in solving tasks arising in a real classroom setting. According to the questionnaire data, the majority of respondents identified cooperation with the class teacher and counselling parents as their greatest difficulties.

The results obtained after the formative experiment are presented in Table 2.

Table 2. Dynamics of readiness levels in the experimental and control groups

Group	Stage	High (%)	Medium (%)	Low (%)
Experimental (n=62)	Initial	11.3	38.7	50.0
Experimental (n=62)	Final	35.5	51.6	12.9
Control (n=60)	Initial	10.0	40.0	50.0
Control (n=60)	Final	16.7	45.0	38.3

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As the data in the table show, in the experimental group the proportion of students at a high level rose from 11.3 % to 35.5 %, while the proportion at a low level fell from 50.0 % to 12.9 %. A positive shift was also observed in the control group, but it was considerably weaker: the high level increased by only 6.7 %. The statistical significance of the difference between the groups was verified using Student's t-test and confirmed at $p < 0.05$. This indicates that the observed changes were not accidental but resulted from the applied methodology.

Qualitative analysis showed that the most notable growth occurred in the activity-technological and reflexive-communicative components. This is explained by the fact that simulation-based sessions and case studies gave students experience of making professional decisions in an environment where errors carry no risk, while video-based reflection developed the skill of critically evaluating their own performance.

Discussion

To explain the results obtained, we present an example of the most effective element of the methodology – a complex case assignment. Students are given the speech record of a second-grade pupil, the class teacher's observation notes and a parent's complaint. The task is to identify the pupil's needs, determine the directions of corrective work, prepare three specific recommendations for the class teacher to apply in the lesson, and draft the text of a conversation with the parent. The situation is then enacted as a role play, recorded on video and analysed in a group discussion. Such an assignment simultaneously affects all four components and differs fundamentally from a traditional practical session. The findings confirm the conclusions of V.V. Khitryuk and S.V. Alekhina that the value-motivational component plays a leading role in a teacher's inclusive readiness. At the same time, our data showed that for the speech therapist as a specialist the reflexive-communicative component is of equally high priority: in an inclusive classroom, the speech therapist's work is largely mediated through

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communication with other professionals. This suggests the need to refine the existing theoretical models by taking into account the specific features of speech therapy as a field.

A limitation of the study is that the sample was confined to a single higher education institution and that the duration of the experiment was relatively short. In future it would be advisable to investigate the long-term effect of the methodology during the first years of graduates' professional activity.

Conclusions and recommendations

The results of the research allow the following conclusions to be drawn. First, a future speech therapist's readiness for inclusive activity has an integral four-component structure (motivational-value, cognitive, activity-technological, reflexive-communicative) and cannot be formed through the transmission of theoretical knowledge alone. Second, in this process the innovative approach requires changing not so much the content of education as the mode of activity – placing the student actively within a professional situation.

Third, a methodology based on the organic unity of case study, simulation, project learning and digital tools yields significantly higher results than traditional training. Fourth, supervision and video-based reflection are of particular importance in developing the reflexive component.

On this basis, the following recommendations are put forward: 1) to introduce the special course "Inclusive Speech Therapy: Technologies of Classroom Work" into the curriculum of the speech therapy programme; 2) to establish a speech therapy simulation room (equipped with a video observation system) in higher education institutions; 3) to build sustainable network cooperation between universities and mainstream schools operating inclusive classes; 4) to introduce a digital portfolio as a means of monitoring the student's professional growth; 5) to develop a professional development module on supervision for practice supervisors.

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A promising direction for further research is the study of the potential of artificial intelligence–based diagnostic tools in speech therapy training.

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