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METHODOLOGY FOR CONDUCTING AN EXPERIMENT TO IDENTIFY THE READINESS OF UNDERGRADUATE STUDENTS IN TECHNICAL FIELDS FOR SOCIAL AND PROFESSIONAL ADAPTATION IN PRODUCTION

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Abstract
The article discusses the development of social and practical skills and the process of experimental testing for students of technical higher education institutions. The process of acquiring social and practical skills and conducting experimental trials for students in technical fields has been analyzed.

Keywords: Experimental testing, skills, competence, student, social-practical, readiness.

Introduction

A developed model for forming the readiness of undergraduate students in technical fields for social and professional adaptation in production has been introduced. The effectiveness of this model was tested through a pedagogical experiment involving students. The experimental base was Bukhara Engineering-Technological Institute (BukhETI).

The choice of the research base is determined by its topic and the opportunities created at BukhETI for high-quality professional training of undergraduate students in technical fields. Currently, the university offers education in fifty different fields, eleven of which are unique to this institution in the region. The university actively participates in many regional programs.

The educational process at the university is carried out through additional education programs, secondary vocational education, higher education, and further professional education. The implementation of educational programs is characterized by a high level of practical orientation, as well as the possibility for students to combine study and work.

Along with regional programs, Bukhara Engineering-Technological Institute (BukhETI) serves as a platform for various scientific and educational youth projects, such as the multi-level engineering olympiad and the festival.

BukhETI actively participates in employer associations. The university is a member of the regional association of mechanical engineering employers. Additionally, BukhETI closely cooperates with foreign partner universities in the fields of education and research. Internships for faculty members and students take place in various countries.

BukhETI has a scientific and educational center, within which programs such as "Machine Tool Technology" are implemented.

An important component of scientific activity at the university is students' research work. At BukhETI, this is represented by the Student Scientific Society, a voluntary non-profit

association of students. The campus work is aimed at popularizing research activities among students by involving them in project-based work, which contributes to the preservation and development of BukhETI's intellectual potential.

A significant place in the university's educational system is occupied by extracurricular activities aimed at the personal and professional development of students, as well as the formation of a broad range of general cultural competencies. Extracurricular activities are represented by the following units:

- Youth Creativity Center, which focuses on preparing competitive specialists by engaging them in creative and socially significant activities.
- Student Club, which creates conditions for the successful self-realization and self-affirmation of students by involving them in socially significant activities.
- BukhETI Student Council, which works to improve the quality of education by participating in the management of the educational process. It ensures the protection of students' rights to receive quality education and assists the university in training qualified professionals.

Thus, Bukhara Engineering-Technological Institute (BukhETI) is a modern technical university that provides high-quality professional training for undergraduate students in technical fields. It not only equips them with professional competencies but also fosters a wide range of general cultural skills that are highly valued by employers. These specific features of BukhETI as a research base were taken into account during the organization of the experimental work.

During the experimental work, the following tasks were addressed:

1. Determining the initial level of students' readiness for social and professional adaptation in production, followed by data analysis.
2. Experimental verification of the effectiveness of the model for forming undergraduate students' readiness for social and professional adaptation in the university's educational process.
3. Identifying a set of pedagogical conditions that determine the effectiveness of this readiness formation in the educational process of the university.

The experimental work was carried out in stages and included the following phases:

1. Stating Phase (Diagnostic Phase): This phase aimed to assess the readiness of undergraduate students in technical fields for social and professional adaptation in production. During the experiment, the following activities were conducted:

– Analysis of students' readiness for social and professional adaptation in production based on survey results from potential participants (identifying necessary qualities and preferred types of activities) to study its functional orientation.

– Conducting questionnaires to identify the motivational, cognitive-content, activity-communicative, and reflective-evaluative components of readiness.

– Based on the obtained indicators, students were conditionally categorized according to their levels of readiness for social and professional adaptation.

2. Formative Phase: This stage involved the experimental verification of the model for forming undergraduate students' readiness for social and professional adaptation within the university's educational process.

3. Evaluation and Result Analysis Phase: At this stage, a repeated diagnosis of students'

readiness for social and professional adaptation in production was conducted. Additionally, a description of the set of pedagogical conditions that determine the effectiveness of this formation process was provided.

At the stating phase of the experimental work, the following tasks were addressed:

1. Selection and formation of control and experimental groups.
2. Selection of diagnostic methodologies to determine the initial level of undergraduate students' readiness for social and professional adaptation in production.
3. Conducting diagnostics of the initial level of readiness for social and professional adaptation among undergraduate students in technical fields.
4. Analysis and comparison of the obtained data.

In accordance with the objectives of the stating phase of the experiment, the total number of participants was determined, consisting of undergraduate students in technical fields at BukhETI.

During this phase, a diagnosis of students' readiness for social and professional adaptation in production was conducted based on theoretically justified indicators of the formation of motivational, cognitive-content, activity-communicative, and reflective-evaluative components of readiness.

In addition to the aforementioned psychodiagnostic methods, pedagogical methods were also used, including participant observation, interviews, analysis of students' work, and examination of educational and methodological documentation.

To diagnose the formation of the motivational component of undergraduate students' readiness for social and professional adaptation in production, the following methods were used: “Motivation for Professional Activity” and “Diagnosis of Self-Actualization”.

The attitude towards future professional activity was assessed using the “Motivation for Professional Activity” methodology. This methodology is based on the concept of intrinsic and extrinsic motivation. Students evaluate the significance of various professional activity motives for themselves.

By calculating the indicators of intrinsic motivation, positive extrinsic motivation, and negative extrinsic motivation, it becomes possible to determine the motivational complex of an individual. Intrinsic motivation is the most effective, while positive extrinsic motivation is more effective than negative extrinsic motivation.

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