Resources for the Formation of Educational Independence of Future Teachers: Activity Games

L Nikitina1,a*, K Lebedeva1,b, and O Rybina1,c

1 Altai State Pedagogical University, 55 Molodezhnaya street, Barnaul 656031 Russia

*Corresponding author

Keywords: educational independence, activity games, professional training, future teacher

Abstract: Educational independence is an action that allows a future teacher to discover and subsequently appropriate the meaning and content of professional activities. The modern practice of training at the university often implements reproductive methods of teaching, according to which a future teacher learns to restore the accumulated experience of organizing teaching activities. At the same time, he/she does not master certain ways of constructing the meaning of his/her professional education. The purpose of the article is to substantiate the importance of the implementation of activity games in the university classes, which contribute to the manifestation by future teachers of the initiative in setting the goal of education, mastering their abilities to organize their own activities, and ways to improve it. Empirical research methods clearly demonstrate the need to use activity games as a resource in the formation of educational independence.

1. Introduction

Global social changes associated with the increased volume of information acquired by a person and its rapid obsolescence have put forward the need to master the ability to independently organize their educational activities. This trend is reflected in the international programs of UNESCO (TUNING, STELLAR projects). The “Universal learning action” as a basic ability to learn throughout life becomes a leading [1]. Preparing a teacher ready to “constantly demonstrate to his students ... the ability to learn; ... readiness for change, mobility, ability to non-standard labor actions, responsibility, and independence in decision-making” is of particular importance [2]. Educational independence is in demand as a way to manage individual education.

However, as practice shows, 61% of future teachers are focused mainly on the implementation of regulated schemes and requirements in the learning process at the university and at school without showing initiative in organizing their educational activities. In the future, this will lead to deficiencies in the ways of improving professional activity in independent goal setting, introspection, self-esteem, reflection. One of the reasons for this phenomenon is the use by teachers of reproductive technologies that require students to memorize and restore the information studied. This does not contribute to the discovery and appropriation by them of the meaning of the self-educational activity.

The purpose of the article is to consider activity games that promote the formation of educational independence among future teachers.

2. Materials and Methods

The study was built in the following two directions:

1. Determining the quality of formation of educational independence of students and studying the use of educational technologies by teachers in teacher training;

2. Development and implementation in university practice of activity games as technologies in the formation of educational independence.

The choice of research procedures is determined by the specifics of humanitarian research, where there is a different understanding of man. A person is understood as an actor, who initiates the generation of the
meanings of education for himself through interaction with others, shows his will in relation to the organization of his education (M. Heidegger, M. Mamardashvili, M. N. Frolovskaya, G. N. Prozumentova).

To implement the first research direction, a number of empirical research methods were used: (1) psychodiagnostic tests (such as the modified questionnaire of L. V. Bayborodova); (2) diagnostics of educational motivation (A. A. Rean and V. A. Yakunin, in modifications by N. Ts. Badmaeva); (3) observation, conversation, interviews, questionnaires, expert assessment methods.

The second research direction was carried out on the basis of the theory of organizational and activity games of P. Shchedrovitsky. We did it through the development and implementation of activity games in the professional training of a future teacher, the result of which was the mastery of educational independence.

The research base was composed of students from the Altai State Pedagogical University (Barnaul, Russia), studying in the field of "Pedagogical Education" (specialization in “Primary Education”) (100) and teachers (15).

3. Results

3.1. Determining the quality of the formation of students' educational independence (the questionnaire by L. V. Baiborodova, the expert map for assessing the cognitive component of the EI, the content analysis of reflective texts).

Considering educational independence (EI) as an educational action (EA), we identified the motivational, cognitive, and activity components. Each of them has several criteria and indicators to determine the levels of EI mastery, such as reproductive, reconstructive, creative (see Table 1).

<table>
<thead>
<tr>
<th>EI components</th>
<th>Motivational</th>
<th>Cognitive</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in the leading motives of</td>
<td>The abilities to define the EA, to analyze, to reflect.</td>
<td>The students are mastering the ways of organizing EA; presentation skills;</td>
<td></td>
</tr>
<tr>
<td>students' EA – from personal (external) to professional (internal) motives.</td>
<td></td>
<td>manifestation of their educational position.</td>
<td></td>
</tr>
<tr>
<td>The students are interested in</td>
<td>The students independently formulate the goals of EA, analyze,</td>
<td>The students choose a joint activity as their main activity, subsequently</td>
<td></td>
</tr>
<tr>
<td>independent educational activities, are</td>
<td>conduct reflection of EA.</td>
<td>rely on the independent activity as a leader, substantiate the choice of</td>
<td></td>
</tr>
<tr>
<td>guided in EA to acquire knowledge</td>
<td></td>
<td>ways to organize OD in each specific situation, take the initiative.</td>
<td></td>
</tr>
<tr>
<td>about the profession.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2. Determining the quality of the formation of students' educational independence (the questionnaire by L. V. Baiborodova, the expert map for assessing the cognitive component of the EI, the content analysis of reflective texts).

As we see, as the criteria for the cognitive component, we identified the main cognitive processes, without which the formation of the EI of students seems impossible. In the activity component, those actions are reflected that we can see directly in the EA of students. So, if the indicators of the cognitive component are hidden and represent internal processes, then the indicators of the activity component are manifested and visible in the external activity.

The data obtained as a result of diagnosis showed the predominance of the reproductive level of EI mastering by students in the motivational (58%) and cognitive (49%) components. According to the activity component, the prevalence of reconstructive (50%) and reproductive (47%) levels of students' EI
development is noted. The minimum percentage of students (average values were 8.5%, 11%, 3%) with a creative level of EI development was recorded for all components. The combination of these indicators indicates the total reproductive level of EI ownership by students.

3.2 Use by teachers of educational technologies in teacher training.

The survey, including three unfinished statements and options for their completion, showed that when choosing educational technologies for classes, 60% of all respondents prioritize “stimulating the initiative of students” and “their interest in the subject.” The option “focus on the experience of their professional activities” is in second place (40%); the option “so that all program issues are addressed” is on the third (33%).

“When implementing educational technologies in the classroom ...”, “focusing on situations of uncertainty in which students express different points of view” and “creating an emotional atmosphere” are significant for 47% of teachers. At the same time, 60% of respondents note formal indicators of the use of educational technologies (“for the program to be fully implemented,” “for educational technologies to be implemented in strict accordance with established requirements”). Thus, we see a reduction in educational technology and its result.

An analysis of the answers about “the effectiveness of using educational technologies in the classroom” showed that 73% of respondents see the effectiveness “in obtaining practical knowledge and skills by students.” At the same time, mastery of the ways of organizing one's activity by students becomes significant only for 46% of teachers.

The data obtained allow us to talk about the incomparability of the goal of choosing educational technology (manifestation of students' initiative as an impact on their professional training), understanding the importance of its use (the creation of situations of uncertainty in which the awareness of the subject of their professional training occurs), and the planned result of the implementation of educational technology (transfer of practical knowledge and skills). Such an attitude of respondents to the use of educational technologies in the professional training of students of a pedagogical university may indicate an understanding of educational technology as pedagogical, for which a specific planned result is important. (In this case, it is the acquisition of knowledge and skills in the field of professional activity). In relation to educational technology, the result is born in the process of its creation and implementation.

4. Discussion

Researchers mainly describe the conditions for the development of a complex of skills to self-organize activities in distance learning [3], in the organization of research work [4; 5], in the organization of activities on the subject matter of the academic discipline [6], when passing an individual educational path in the nonlinear educational process of a university [7]. As a means of forming educational independence, the authors indicate pedagogical technologies, where students master individual components of professional activity.

At the same time, they identify pedagogical and educational techniques, which, in our opinion, is due to a difference in understanding of education. In the context of the humanitarian approach, education involves focusing on a person who acts in the center of his education, realizes his place in it, and his position in relation to other subjects of education. The subject’s activity in education (rather than being in it) is determined by the creation of something new and significant in itself (“education” as a derivative of “form” and “forming”). At the same time, being the initiator of his activity in education, the subject can carry out it only as a joint activity when the formation of his own (subjective) meanings is generated in interaction with other people [8]. Hence, the emphasis, first of all, on the nature of students’ activities and interactions becomes an essential sign of any educational technology [9].

In our opinion, one of the reasons for the lack of formation of educational independence is the lack of involvement of students in educational activities as participants who build the meaning of their education, master the ways of its organization, thereby designing further improvement of professional activity.
We see a change in this situation in the use of organizational and activity games in the university practice as a condition for generating students’ activity in assigning methods for organizing educational activities [10].

We will give an example of an activity game that was conducted with students in practical classes for the study of methodological disciplines.

The game “Lesson in non-stop mode.” The meaning of the game is to develop and present a fragment (stage) based on the proposed material in the group, which is part of the general lesson. Realizing it, based on the analysis of a given material (copies of pages from a textbook, workbook, guidelines), students determine the topic of the lesson, the textbook on which the lesson is built, restore the conceptual foundations of the author’s system; think over the purpose and objectives of the lesson; think over their stage of the lesson, determine its task, choose the material; develop their stage, including it in a single lesson.

The game is constructive in nature because when developing their stage, students “include” it in the general structure of the lesson. Focusing on a common goal and the logic of working with the material, students create a single lesson.

The game participants are developers, negotiators, teachers.

Developers (they are all students in each separate group) study the material, develop a fragment of the lesson of their stage.

Negotiators (in each group, one student) communicate with other groups to exchange information on the level of completion, the logic of its construction, the creation of “bridges” for the transition from one stage to another.

Teachers (in each group, one student) “play” their stage in a single lesson mode (non-stop lesson).

Game organization. For the lesson, students studied the topic “Methodological activities of the teacher in preparation for the lesson ...”, worked out materials on the topics of the methodological module. For the game, they are divided into groups (the number of groups is determined by the number of main stages). In each group, a negotiator and a teacher are selected. All group members are developers.

Game progress. Each group works through the material presented, participates in a joint discussion regarding the goal, objectives, type of single lesson. After the distribution of the stages of the lesson, each group determines the task for its stage, selects material for work, then justifies its decision. In the course of work, negotiators discuss with other groups the logic of the transition between stages, redistribute material if necessary. After finishing work, the teachers of each group present their stage in the non-stop lesson mode (each subsequent teacher joins the lesson without stopping his progress, “building a bridge” from his stage to the next). At the end of the game, reflection (a written reflection of each group and joint oral reflection) is carried out.

Thus, the holding of activity games allows students to build the educational meaning of their activities in the organization of their future profession through the implementation of reflection at all stages of the game. Also, holding active games allows one to take the initiative and choose the educational position that is relevant for the game participant at the moment through the selection of certain roles and their change in each game situation. Through the construction of teamwork in groups, the conduct of activity games allows to form, on the one hand, the ability to collaborate and, on the other hand, the ability to organize.

5. Conclusion

The inclusion in the university practice of activity games will allow putting into practice the formation of future teachers of educational independence as an action in the discovery and appropriation of the meaning of education in the profession. Changing the technology of university education, focused on the practical activities of the graduate, and solving the problem of skill formation throughout the professional life of the future teacher are other consequences.
References


