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*The State of Creative Technology of Situation Studying
Implementation into Higher Pedagogical
Educational Institutions*

Stan wdrożenia technologii twórczej w uczeniu się przez sytuacje w placówkach oświatowych

STRESZCZENIE

W artykule, w oparciu o analizę źródeł naukowych i materiału empirycznego, scharakteryzowano metodę wprowadzania kształcenia kreatywnego na uczelniach pedagogicznych na Ukrainie. Stwierdzono, że twórcza technologia uczenia się sytuacyjnego w przyszłych szkoleniach dla nauczycieli jest fragmentarycznie wykorzystywana w instytucjach szkolnictwa wyższego Ukrainy. Jest to realizowane w formie pojedynczego i niesystematycznego zastosowania metody analizy konkretnych sytuacji oraz faktycznego braku zastosowania metody przypadków. Jednocześnie odbywa się to przede wszystkim w warunkach tradycyjnej edukacji, podczas gdy analiza sytuacji pedagogicznej jest przeprowadzana przez nauczyciela lub studenta, a dyskusja czy akceptacja grupy i uzasadnienia decyzji nie występują. Ponadto należy wskazać, że elementarny poziom zastosowania wskazanej technologii uczenia się jest spowodowany nieprzygotowaniem psychodydaktycznym nauczycieli do tego procesu.

Słowa kluczowe: podejście technologiczne; technologia edukacyjna; nauczanie sytuacyjne technologii kreatywnej; uniwersytety pedagogiczne; kształcenie przyszłych nauczycieli

SUMMARY

Proceeding from the literature review and empirical material, the article describes the creative technology method of situation studying implementation into Ukrainian higher pedagogical educational institutions. It was concluded that the creative technology of situation studying in the training of future teachers is used in Ukrainian higher educational institutions fragmentarily. That is in

the form of a single and non-systematic use of specific situation analysis method and the actual absence of the case method use. At the same time, the use predominantly appears in the conditions of traditional education, when the pedagogical situation analysis is done by a teacher or an individual student, and discussions, common acceptance and decision justification do not occur. The survey identified that the elementary application level of the indicated educational technology is caused by lack of teachers' psychological and didactic preparation for this process.

Keywords: technological approach; educational technology; creative technology of situation studying; higher pedagogical educational institutions; training of future teachers

INTRODUCTION

The urgent task in the context of the modern didactic higher education paradigm in Ukraine and in the world context is the training of a qualified specialist, the would-be teacher in particular. The quality of school education is known to depend on the quality of teacher vocational training, teacher's readiness to complete numerous pedagogical situations arising in their professional activity. It is clear that the formation of would-be teacher ability to make the correct decision in the process of solving pedagogical situations requires, first of all, the readiness of university teachers to apply the educational technologies. For example, it can be the situation studying technology. It is outlined as a special organization of students' active educational and cognitive activity, the main method of which is the particular pedagogical situation analysis. Though, traditionally, textbooks and manuals offer a familiar method of solving pedagogical situations, having no description of the method of specific situation analysis.

Today available popular articles and manuals contain theoretical statements and methodological instructions to solve pedagogical situations and use the case method as a key method in the context of the creative technology of situation studying (Anderson, Simon 1996; Barnes et al. 1994; Hatano 1996; Nonaka 1991; Ohlsson 1990). Comparing the key signals to solve pedagogical situations that are given in textbooks and manuals on the pedagogical skills basics (Bazylevych (2008), Dmytrenko (2008), Kramushchenko (2008), Kryvonos (2008), Zyazyun (2008)), the necessity of their application in would-be teacher training, the appropriateness of the chosen procedure for a teacher's actions, or the accurate and justified elements presented by the author of the pedagogical situation decision are emphasized. However, the separate teaching manuals and methodological books do not guarantee the use of the creative technology of situation studying by university professors.

The purpose of the study is to characterize the state of creative technology of situation studying implementation into Ukrainian higher pedagogical educational institutions on the basis of literature review and empirical material analysis.

Tasks of this research stage are the following:

1. To develop a methodology for diagnosing the research subject.
2. To find out the subjective opinion of university teachers on their use of creative technology of situation studying in the process of would-be teacher training.
3. To establish the objective state of their creative technology of situation studying implementation in the process of would-be teacher training.

The theoretical basics of the study, based on the analysis of state educational and qualification requirements for teachers, are the following statements:

1. Pedagogical activity is a situation activity, and it consists of pedagogical situations set.
2. The vocational would-be teacher training is training for creative situation activity, the result of which is an adequate level of would-be teacher readiness to solve pedagogical situations.
3. The readiness to solve pedagogical situations is formed in the process of performing situation tasks, mainly in an interactive way.
4. Interactive learning in solving pedagogical situations includes student's initiative, creativity, ability to take responsibility for decision-making in pedagogical situations, etc.
5. The implementation of creative technology of situation studying primarily includes the appropriate teaching and methodological support and teachers' psychological and didactic readiness to apply it.

These statements have become original criteria for studying the state of the creative technology of situation studying implementation into higher pedagogical educational institutions.

THE STUDY METHODOLOGY

Since two subjects (a teacher and a student) are involved in the would-be teacher training, cross-polls, questionnaires, interviews and tests were conducted with: teachers working at the would-be teacher training faculties, and students of the corresponding training areas. Teaching presentation materials and methodological work of would-be teacher training faculties were also analyzed; they were presented on the Ukrainian universities' sites. Surveys, questionnaires, interviews and tests were carried out as direct subjects (closely related to the study), as well as indirect subjects (the study of more general concepts). Moreover, some questions for students, in order to compare their expected results of the professional training process with its real status, were formulated opposite, both for students and for teachers. For example: Which of the following didactic methods and techniques should prevail in the class? (students' expectations); Which of the following didactic methods and techniques prevail in

the class? (real state discovered by students); Which of the following didactic methods and techniques do you use at classes? (real state presented by university professors).

RESEARCH RESULTS

First of all, the described information on the teaching and methodological work of the would-be teacher training faculties presented on the websites of the Ukrainian universities was analyzed. In accordance with it, teachers use 100% of modern teaching technologies, in particular 25.62% – use the creative technology of situation studying. The similar results were shown by a direct teachers' survey (Do you use modern educational technology in your teaching? Specify the used educational technology).

Despite the fact that the technology concept is “fashionable”, urgent and modern, most university professors still apply it “for the sake of the use”, but not for an essential necessity. This was evidenced by the results of the survey: 40.21% of studied teachers stated that they did not understand the meaning of the term “educational technology”.

The survey of university teachers showed that 85% (!) of respondents could not indicate when the training technology and when the methodology was used at classes during would-be teacher training. Simultaneously, they indicated that it was an educational technology that had been applied in higher educational institutions. Students were optimistic about using educational technology in higher educational institutions. “73% of the interviewed students were convinced that it is the introduction of innovative technologies that will save our education from the problems that it currently faces” (Yankovych 2008, p. 221).

But during the next poll (Provide the definition of the term “educational technology”), 78.01% of the teachers gave the correct or close to the correct answer. This no longer corresponds to 100% of the indicators of information provided on the websites. 94.22% of university professors who worked at the teacher training faculties, also pointed out that they preferred using technologies as teaching methods.

Despite the advantages and clearly expressed effectiveness of the use of modern educational technologies in would-be teacher training, most of university professors still use traditional teaching methods. Proceeding from educational process observation in higher pedagogical educational institutions, three main reasons were identified to give teachers the advantage of using traditional teaching methods in would-be teacher training.

1. Teachers often choose those teaching methods that they were once taught (in the polling process this reason is formulated by the teachers as “We were taught this way”).

2. In the minds of many educators there is a stereotype: deep subject study takes a considerable amount of time, and it should not be wasted for the students' discussion, their communication, their own judgments, etc., because serious training requires the consumption of as much information as possible ("There is no time for unnecessary conversations", "Studying in high school is not a game, but a process of deep learning", etc.).
3. The lack of available effective and understandable descriptions and examples of technologies that would allow a teacher to organize innovative creative education in any educational environment in scientific sources and practice ("I do not know how", "There are no relevant methodological recommendations", etc.).

Indicating the list of educational technologies used in would-be teacher training, educators firstly, limited their spectrum to problematic, interactive, informational, personally-oriented, developmental, educational technologies. Secondly, only 7.02% of the teachers gave a correct interpretation of the "technology of situation studying" concept. The similarity of the technology of situation studying with other types of technologies by university teachers was distributed in such a way that this technology is defined as:

- an analogue of a problem studying technology – 5.11%;
- an analogue of a context studying technology – 5.63%;
- an analogue of an interactive studying technology – 74.02%;
- the separate studying technology – 15.24%.

It shows the overwhelming part of the university professors identified the technology of situation studying with the interactive studying technology.

Note that the cross-poll of would-be teachers showed that students believe that: they were methods but not technologies of studying that are used by university professors at classes. It was also confirmed by the fact that these ideas had been expressed by those would-be teachers who gave a correct interpretation of the "technology studying" concept, that they understood the sense of the question. Thus, the would-be teachers could not distinguish the technology of situation studying among other educational technologies. It indicates a complete ignorance of this context.

The conducting of further survey of would-be university professors proved the following outcomes:

- 100% of university teachers consider a teaching pedagogical activity to be an endless list of pedagogical situations;
- 56.24% of university teachers are ready, 44.37% hesitate to make a quick and correct solving of pedagogical situations during would-be teacher training;
- 68.25% of university teachers are convinced that their students are not ready to take initiative, responsibility for completing a pedagogical situation, working in a group or a pair;

- 45.17% of teachers are not ready to organize the students' cooperation with their groupmates in the process of completing the study assignment, indicating among reasons:
 - a) lack of training time;
 - b) lack of experience in this area;
 - c) lack of desire to make a noise at the lesson, etc.;
- 17.05% of university teachers are convinced that among the professional skills, would-be teachers want to follow organizational skills mostly; 36.0% – communicative skills; 46.95% – to take quick and correct completion of pedagogical situations;
- 79.0% of teachers are convinced that the system of forms, methods and means of professional training of would-be teachers used by them in higher educational institutions satisfies students' cognitive interests;
- the survey stated that teachers often use the following practical exercises as the most effective method of the formation of would-be teachers' educational qualifications, in particular the formation of readiness to solve pedagogical situations:
 - a) dialogue – 29.03% of university teachers;
 - b) business game – 25.17% of university teachers;
 - c) analysis of specific situations – 26.27% of university teachers;
 - d) case method – 14.45% of university teachers;
 - e) other means (note: generally, teachers did not specify other training tools) – 5.08% of university teachers;
- the level of would-be teachers' readiness to solve pedagogical situations depends on:
 - a) the discipline content – 8.09% of university teachers;
 - b) the teacher's personality – 15.45% of university teachers;
 - c) the teacher's professional competence – 53.71% of university teachers;
 - d) technologies (forms, methods, modes) used by a teacher at classes – 15.33% of university teachers;
 - e) the teacher's motivation – 3.07% of university teachers;
 - f) other – 4.35% of university teachers;
- in order to increase would-be teachers' readiness to solve pedagogical situations, it is necessary:
 - a) to provide educational and methodological literature – 49.15% of university teachers;
 - b) to extend methodological support – 18.71% of university teachers;
 - c) to practice teacher's assistance – 8.29% of university teachers;
 - d) to use foreign experience – 7.92% of university teachers;
 - e) to use new pedagogical technologies – 15.93% of university teachers;
- at classes, university professors use the following didactic methods and modes:
 - a) reflexive exercises – 10.85% of university teachers;

- b) logical class construction – 25.37% of university teachers;
- c) the use of pair, group and collective work forms – 15.93% of university teachers;
- d) the use of students' monologues – 7.53% of university teachers;
- e) the formation of abstracts – 20.16% of university teachers;
- f) creating an atmosphere of cooperation with a teacher and groupmates – 20.16% of university teachers.

Taking into account the above-mentioned information and the results of the counter-poll, questionnaires, interviews with would-be teachers, the following contradictions were indicated:

- 100% of the teachers are aware that teacher's pedagogical activity is an infinite list of pedagogical situations and their indecision, hesitation (44.37%) regarding the formation of would-be teachers' ability as to making quick and correct completion of pedagogical situations;
- teachers' conviction that their students are not ready to take responsibility for making decisions in a pedagogical situation, working in a group or a pair (68.25%), teachers' indecision to organize students' cooperation with their groupmates during the lesson in the process of completing the educational assignment (45.17%); and teachers' conviction that in the list of professional skills, would-be teachers follow organizational and communicative skills, ability to make correct completion of pedagogical situations;
- teachers' confidence that the system of forms, methods and modes of would-be teacher training satisfies the students' cognitive interests (79.0%) and the findings of the opposing position regarding this (80.15%) by the would-be teachers in their higher educational institutions.

There can be seen the contradiction, namely 53.71% of teachers are convinced that: would-be teachers' readiness to solve pedagogical situations depends on teacher's professional competence, and only 15.33% of educators believe that the indicated feature depends on the technology (forms, methods, and modes) which they use in the classes. The current understanding of university teacher's professional competence is precisely characterized by his ability to apply a technological approach to education.

Simultaneously, the greatest contradictions were noted in the data obtained from teachers and students regarding the identification of the most effective methods for forming would-be teachers' readiness to solve pedagogical situations used by teachers during the classes. The above mentioned is presented in Table 1.

Table 1. Results of survey and polls of university teachers and would-be teachers (stated experiment)

No.	Questionnaire	University teachers' answers (%)	Students' answers (expectations) (%)	Students' answers (reality) (%)
1.	The most effective method of forming the would-be teachers' readiness to solve pedagogical situations, which is most often used in practical classes:			
	a) dialogue	29.03	10.39	25.47
	b) business game	25.17	6.14	16.15
	c) specific situations analysis	26.27	61.0	13.02
	d) case method	14.45	21.28	2.16
	e) other means	5.08	1.19	43.20
2.	The level of would-be teachers' readiness to solve pedagogical situations depends on:			
	a) the discipline content	8.09	2.59	–
	b) teacher's personality as a person	15.45	23.38	–
	c) teacher's professional competence	53.71	29.77	–
	d) technologies (forms, methods, modes) used by the teacher at classes	15.33	33.89	–
	e) motivation (teacher's, student's)	3.07	8.45	–
	f) other	4.35	1.92	–
3.	To improve would-be teachers' readiness to solve pedagogical situations it is necessary:			
	a) to provide educational and methodological literature	49.15	20.55	–
	b) to extend methodological assistance	18.71	2.45	–
	c) to use practicing teacher's assistance	8.29	13.33	–
	d) to use foreign experience	7.92	7.79	–
	e) to use new educational technologies	15.93	55.88	–
4.	The following didactic methods and techniques are used in the classes:			
	a) reflexive exercises	10.85	25.49	3.09
	b) logical class construction	25.37	20.38	7.51
	c) the use of pair, group and collective work forms	15.93	18.51	3.30
	d) the use of students' monologues	7.53	5.27	40.91
	e) the use of abstracts	20.16	5.27	39.87
	f) creating an atmosphere of cooperation with a teacher and groupmates	20.16	25.08	5.28

Source: Author's own study.

Thus, the greatest difference in the data obtained from teachers and students on effective means of would-be teachers' readiness formation to solve pedagogical situations, which are most often used in practical classes, regards the use of the specific situations analysis method. There was a double contradiction between:

- students' expectations (61.0%) and the real use of this educational method by teachers (13.02%);
- 100% of educators are aware of pedagogical activity as an infinite list of pedagogical situations, readiness (56.24%) for the use of the specific situations analysis method as an effective method for forming would-be teachers' readiness to solve pedagogical situations in classes and the actual use of the specific situation analysis method (13.02%);
- 100% identification of the specific situations analysis method with the case method by teachers.

In order to deny the controversy, teachers were additionally interviewed to get an answer to the question: Why is the technology of situation studying in the form of specific situation analysis method and case method so rarely used in the classroom?

We have received mixed answers, which indicate that the teachers:

1. Do not have:
 - the required number of pedagogical situations and cases symposium;
 - methodical instructions on the use of the technology of situation studying in would-be teacher training, in particular the reasoned choice, harmonization and the use of this technological methods: analysis of specific situations and cases; situational tasks and cases formulation; the use of reflexive exercises;
 - the algorithms samples for solving pedagogical situations and performing situational tasks.
2. Do not know theoretical and methodical principles of the creative technology of situation studying and in general, the technological approach peculiarities to would-be teacher training in particular:
 - the adherence to the technological constitution of the creative technology of situation studying criterion (the implementation of this technology by means of other educational technologies);
 - the differences between the specific situation analysis method and the case method;
 - the classification of pedagogical situations, situational tasks, cases;
 - the methodology of situational tasks and cases formation, the use of reflection techniques, completion of pedagogical situations and performing situational exercises.
3. Do not know how to:
 - create an atmosphere of cooperation between a teacher and students in the classroom effectively;

- implement a variety of pedagogical feedback in classes;
- formulate situational tasks and cases;
- substantially choose, coordinate and apply the methods of creative technology of situation studying in combination with other traditional and interactive studying methods.

Since the actual effectiveness of these or other methods of forming the would-be teachers' readiness to solve pedagogical situations that are most often used in practical classes can be determined by students, there is a clear contradiction between students' expectations of this aspect, teachers' reporting indicators and the results of its implementation.

The results of attending classes (lectures, seminars; practical and laboratory classes), questionnaires and student surveys showed that teachers in questioning and interviewing considerably exaggerate the indicators of their use of business games, specific situation analysis and, most of all, the case method as effective methods for forming would-be teachers' readiness to solve pedagogical situations.

The following comparison of the obtained data shows that the greatest differences are in the indicators of didactic methods and techniques used in the classes by teachers in relation to:

- the reflexive exercises: the difference in the rates was found to be 3.51 times;
- the use of pair, group and collective forms of work – 4.76 times;
- the use of students' monologues – 5.43 times;
- the use of abstracts – 1.97 times;
- creating an atmosphere of cooperation with a teacher and groupmates – 3.81 times.

In practice, in 64.78% of teachers there is a technological imperfection in the use of active and interactive methods in would-be teacher training. University professors still give preference to students' monologue responses and the use of abstracts. That underlines the data that is closer to the reality given by the students themselves.

Thus, the results of the conducted stated experiment (based on the scientific sources and empiric material analysis) with the aim of finding out the state of the introduction of the creative technology of situation studying in Ukrainian higher pedagogical educational institutions made it possible to draw the following conclusions:

1. The creative technology of situation studying in would-be teacher training is used in Ukrainian higher educational institutions fragmentarily: in the form of a single and non-systematic use of the specific situations analysis method and the actual absence of the case method use. Simultaneously, this use predominantly takes place in traditional educational conditions, when the pedagogical situation analysis is done by a teacher or an individual student, and discussions, common acceptance or decisions justification do not occur.

2. The elementary usage level of the creative technology of situation studying in would-be teacher training is caused by lack of teachers' psychological and didactic preparation for this process.

In further studies it is also necessary to find out the criteria and levels of formation of would-be teacher readiness to solve pedagogical situations in the context of the use of the creative technology of situation studying.

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