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Research of teachers' opinion on the application of interactive methods in teaching

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Abstract: *Priorities in education change along with the development of society. Pedagogical process in contemporary school is directed towards the development of creative and adaptive people who are capable of successful realization in life. The accomplishment of these goals depends on teachers' professionalism and moreover on their innovative work.*

The article presents the results of a survey among part of the teachers in the region on their attitude and willingness to use innovative practices in the process of study, especially interactive methods and forms of instruction.

Keywords: *interactive methods, innovative activity, teaching*

Introduction

The changes in the sphere of education, the new requirements to the pedagogical activity in the state legal documents, as well as students' decreasing interest in studying have posed new challenges to teachers. In the conditions of modernization of education, they are faced with the task to prepare competent, adaptive, innovative and motivated students ready to realize their potential successfully in their future professional work. Achieving this goal depends to a great extent on teachers' readiness to apply innovations in their pedagogical practice. Innovative activity has creative nature and relies on various factors: teachers' creativity, their professional competence and emotional load, the social and psychological environment in the educational institution and variety of other objective and subjective circumstances.

Are teachers familiar with pedagogical innovations and particularly interactive technologies, how do they evaluate the necessity of using them in the process of study, are they ready to introduce them in their pedagogical activity? These are the questions we raised and we searched for answers to them with the presented survey.

Theoretical framework and methods

According to National center for professional development of pedagogical specialists at Ministry of Education and Science “By pedagogical innovations we mean purposeful, rational and particular change of pedagogical activity (and its management) through design and introduction of pedagogical and management innovations (new management contents, new forms of work or new organization forms) in secondary education. The development of innovative processes respectively is a way to ensure modernization of education, improve its quality, effectiveness and accessibility.” [4].

One of the possible ways to realize this necessity is the use of the so-called interactive technologies. The aim of interactive instruction is to provide such conditions for studying, so the student would “be aware of their own success and intellectual improvement which makes the learning process itself more productive” [1]. Unlike traditional teaching of learning contents, in the interactive model the teacher’s objective is to teach the students how to find their ways and adapt in the modern world, search for information, acquire new abilities and skills quickly and effectively. Teachers can achieve it by using their own or their colleagues’ good pedagogical practices.

Attitude to novelties is different. In psychology there is a classification of subjects according to their attitude towards innovations, whose author is E. Rodgers [3]. According to this classification there are five groups of pedagogy specialists: pedagogy specialists who introduce and spread new ideas; pedagogy specialists who accept innovations first/before the others; moderate or neutral pedagogy specialists who introduce the new tendencies after they have been accepted by other specialists; doubtful pedagogy specialists, and conservative pedagogy specialists in favor of tradition.

For this reason, the question about introduction of innovations in pedagogical activity needs to be posed along with the question about teachers’ willingness to do it. In our view this readiness depends on a teacher’s personal characteristics – their creativity, ambition for professional development and improvement, abilities to work in a team and cooperate with others, etc., but also on the educational environment of their professional work.

“Creating an interactive educational environment contributes to:

- Improving quality of educational process at school;
- Developing governing body’s management into co-management of teacher and students, and students’ self-management;
- Introducing a new paradigm of teachers’ preparation in accordance with their changed functions” [2].

In comparison with traditional teaching, in interactive instruction interrelations between educationalists and students change, their activeness is replaced by students’ activeness and an educationalist’s task is to provide conditions for students’ initiative and turn them into equal participants in the process of study. The teacher does not just teach, but urges and motivates students to search for answers to discussed questions independently.

With the present study we aimed at finding out the attitudes and willingness of part of the teachers in the region to use innovations and more particularly, interactive methods of instruction.

Results and discussion

In order to accomplish the goal a survey was conducted with 196 teachers in various subject fields from the towns of Varna and Shumen, and the regions of Ruse and Silistra.

The questionnaire consists of 15 questions with optional or free answers. The following data present respondents’ profile:

- ✓ sex/gender: 80,18% women, 19,82% men;
- ✓ pedagogical work experience: up to 5 years – 2,83%; up to 10 years – 7%; up to 20 years – 13%; more than 20 years – 83%.

The first question ascertains what teachers understand by innovation in pedagogical work, and the second question – by interactive methods of instruction. The given answers show that nearly all respondents take innovation as a synonym of something new, but they do not offer an exact definition of an “interactive method”, they give concrete examples instead.

The questions 3 and 4 check teachers' opinions about the need of using interactive methods in studying, and their willingness to apply these methods in their practical work. The results are shown in fig.1.

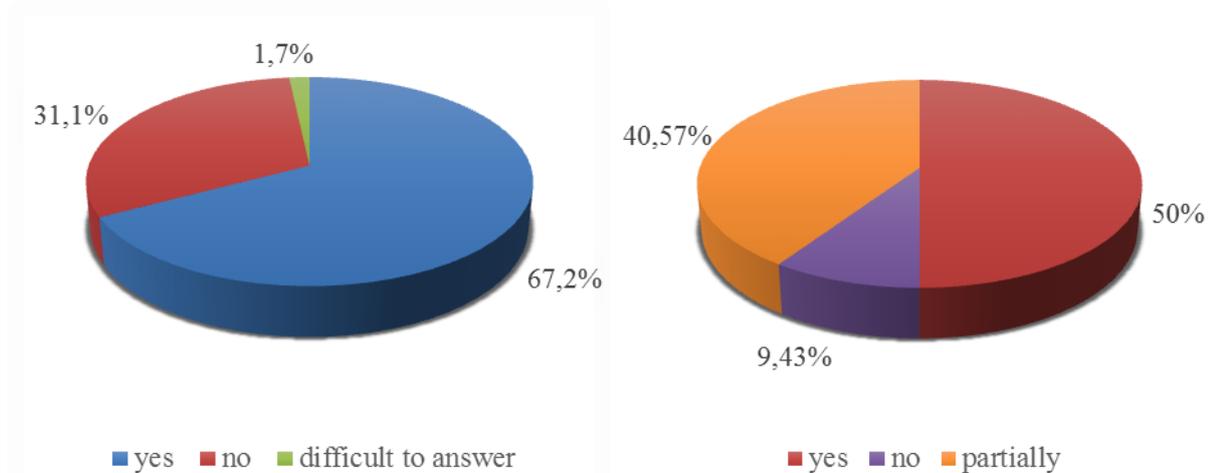


Figure 1. Results from the answers to questions 3 and 4

The data analysis shows that teachers' attitude to introducing innovations in educational practice is not unambiguous. Despite the prevailing positive attitude (positive answers percent is 67, 2%), the share of negative opinions is substantial enough (31,1%). Respectively, 50% of respondents are ready to adopt and apply interactive methods and forms of work in their practice; 9,43% are not interested, and 40, 57% are not certain. It's noteworthy that positive attitude towards using innovative methods and forms, as well as readiness to apply them prevail among teachers with longer professional experience rather than among younger and less experienced teachers.

The answers to question 5 "Do you use interactive methods in your work?" show that 59,43% of the teachers surveyed use such methods, 19, 81% do not use them, and 20,75% provided no answer.

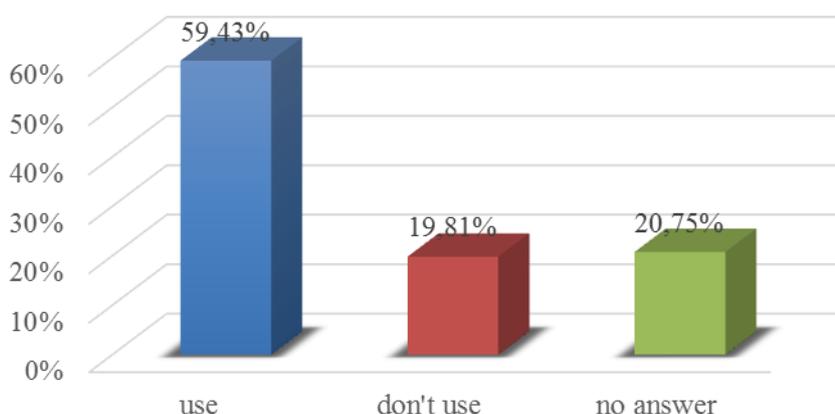


Figure 2. Results from answers to question 5 "Do you use interactive methods in your work?"

The survey shed light on some of the reasons that affect teachers' attitude to innovative processes. The reasons can be found in the answers to some of the following questions. For example, to question 6 "Are there conditions for innovative activity development in your school?" 68,86% of teachers have given affirmative answers, but 31,13% have said that such conditions do not exist and these answers are commensurate with the answers to the previous questions. To question 7 "What difficulties do you encounter in preparation and use of interactive methods and forms of instruction?" the respondents have answered that the main difficulty is "insufficient methodology literature resources" – 46,22%, "insufficient

time for preparation” – 26%, “lack of support from the school management” – 3%, and “lack of necessary theoretical knowledge” – 2% (fig.3).

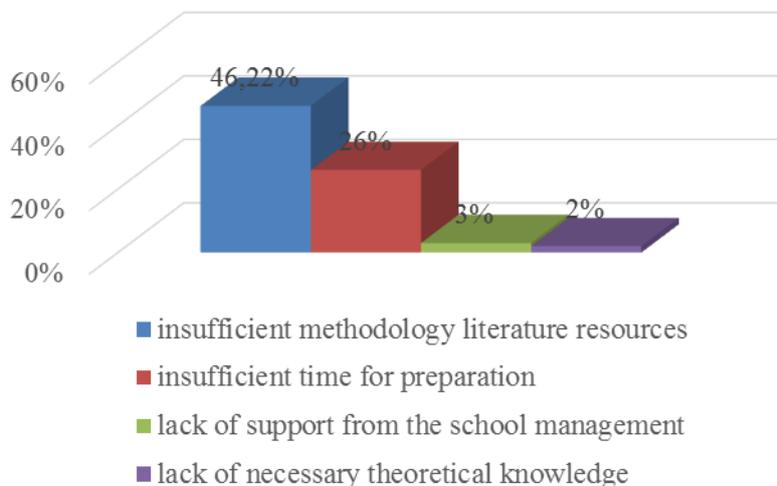


Figure 3. Results from answers to the question “What difficulties do you encounter in preparation and use of interactive methods and forms of instruction?”

The big percentage of answers related to shortage in methodology literature is surprising because in the recent years enough works on interactive instruction have been published including electronic resources. However, these works examine the issue mainly in theoretical aspect and, as respondents’ answers show most teachers need concrete works which illustrate these methods’ application in lessons. This result is also supported by the answer to the following question according to which 40,56% of respondents use their own methodological elaborations in preparing lessons with interactive methods, and only 10,52% use materials from methodology literature (fig. 4).

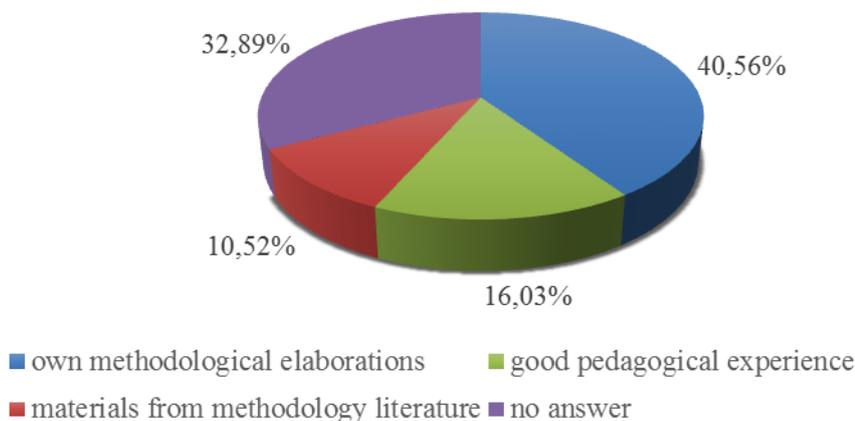


Figure 4. Results from answers to the question “What difficulties do you encounter in preparation and use of interactive methods and forms of instruction?”

The fact that more than a quarter of respondents consider insufficient time for preparation as difficulty can be explained. In fact, preparing an interactive lesson requires serious preliminary commitment both on behalf of teachers and students. Taking into consideration the overloaded syllabus and complicated, heavily theoretical learning contents of all school subjects, including science it is obvious why a great number of teachers do not often use innovative methods in their work.

Despite the fact that many teachers find it hard to acquire and use pedagogical innovations, 55,66% of respondents have given a negative answer to the question “Do you need help, who do you expect to

help you and what do you need help with?"; 41,5% of respondents have not answered the question, and only 2,83% have stated they need help.

The following question 10 aims at finding out what modern technologies teachers are familiar with and use. Results are shown in fig. 5.

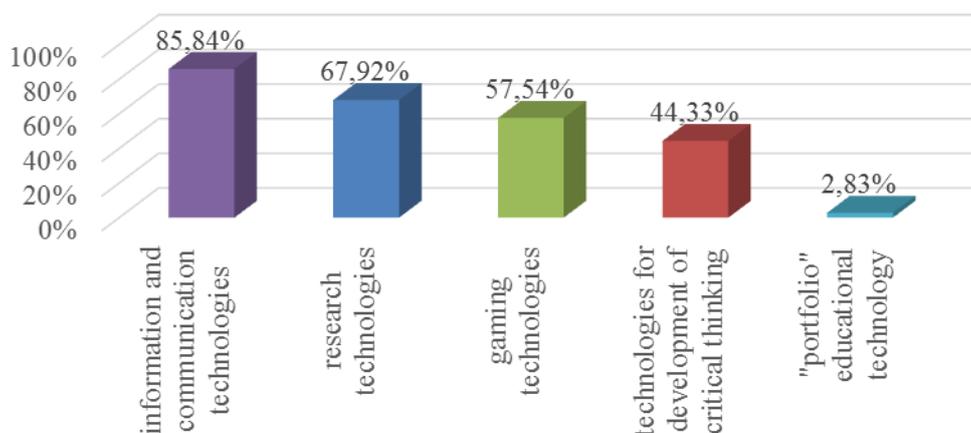


Figure 5. Results from answers to the question “What modern didactic technologies are you familiar with and use in your work?”

As it can be seen from the diagram information and communication technologies are the most often used by teachers (85,84%) along with research technologies (67,92%). However, further clarification of the ways they use the mentioned types of technologies ascertained that the actual percentage is lower. The reason is that not all teachers understand the meaning of the term ‘interactive’ and ‘innovative’. (For example, a big number of teachers consider the preparation of a multimedia presentation an interactive method.) We reached this conclusion after receiving the answers of the following question that are presented in fig. 6.

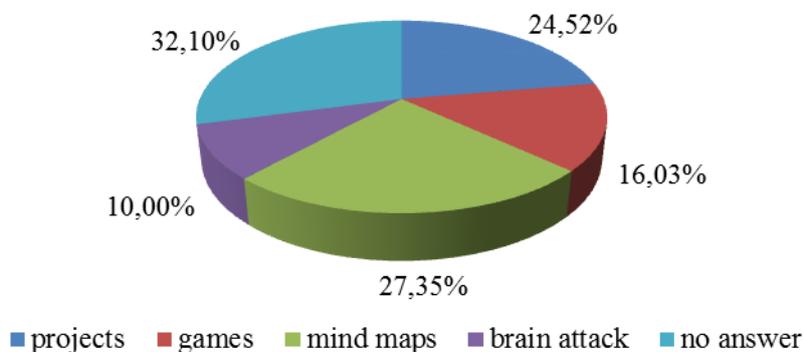


Figure 6. Results from answers to the question “Which interactive methods and forms do you use in your work?”

The result illustrates teachers’ knowledge and use of a limited number of interactive methods. Additionally, 27,35 % define mind maps as a method, and they really are a means of expression of the association method, and every problem issue they define as brainstorming.

The gathered data and our observations show that most of the teachers actively use project method in their practice. The problem is that by project they mean the preparation of a multimedia presentation, a scientific report, scientific lecture/talk, accomplishment of a homework assignment, etc. That is why it is important to specify what a teacher means by the terms they use. It leads to the conclusion that additional methodological instruction on innovative activity is necessary for a great number of teachers.

The following group of questions gives some ideas about teachers’ opinions about the benefit of using interactive methods.

63,09% of the respondents give positive answers to the question “Would interactive methods help you stimulate your students’ interest and increase their motivation to study?”, 10,22% gave negative answers and 26,22% of the respondents didn’t provide any answers.

Question 13 aims at finding out what objectives teachers set when they use interactive technologies. The results are presented in fig. 7.

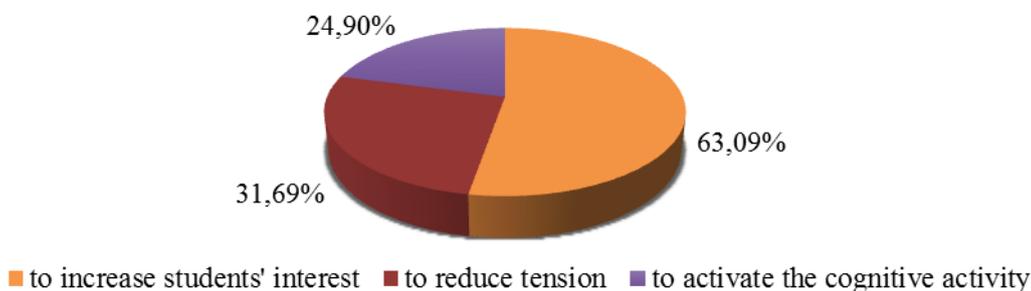


Figure 7. Results from answers to the question “What tasks do you set when you use interactive technologies in your work?”

The next question in the questionnaire requires the teachers to point out the three most important reasons why innovative activity is necessary. In the first place 90,56% gets the answer that using innovations contributes to teachers’ creative development and improvement, in the second place with 74,52% the preferred answer is that it stimulates students’ interest in studying, and in the third place with 69,81% that it’s interesting to create something new. Results are visualized in fig. 8.

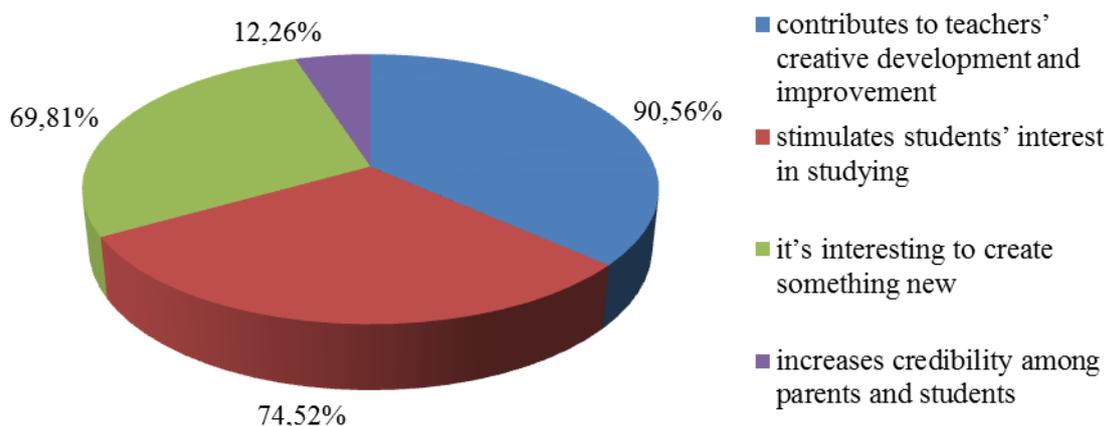


Figure 8. “Which are the three most important reasons why innovative activity is necessary?”

The answers to all three questions convincingly demonstrate that according to teachers’ interactive methods and forms contribute to stimulating students’ interest, hence their motivation to study the subject.

Teachers’ expectations for positive changes in educational process if interactive technologies are more widely introduced and used are presented in the diagram of fig. 9.

To the last question in the survey – “Do you expect to get personal satisfaction by using innovations in pedagogical process? Why?” - 85,23% of the teachers answered positively and the reasons they set out are the opportunity for creative improvement, developing better rapport with students and better professional realization.

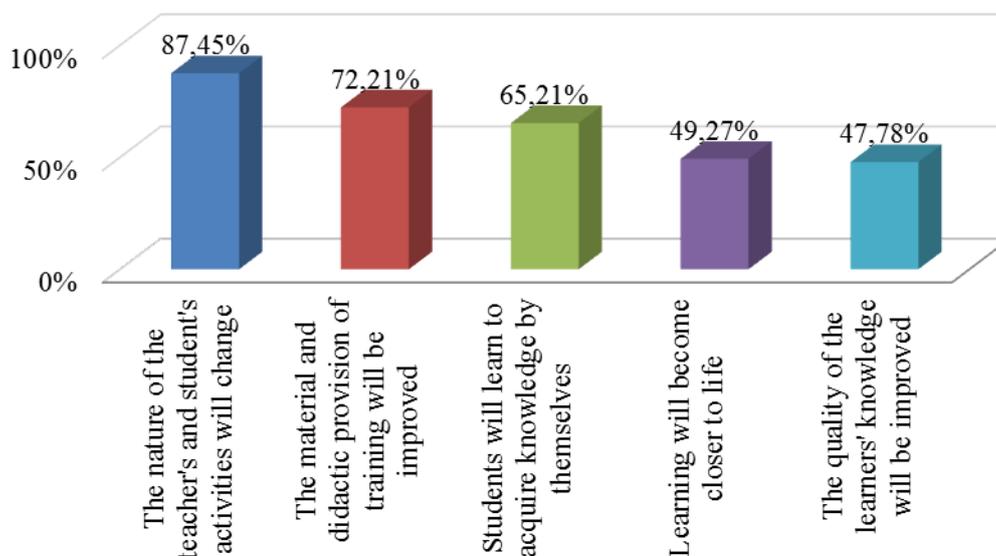


Figure 9. Answers to the question “What are your expectations for changes if interactive technologies are more widely introduced and used?”

Conclusions

The conducted survey shows that teachers' attitude towards innovative activity in general is positive, but not unambiguous. The reasons may be different but in our view the most important are the complicated and heavily theoretical learning contents, the decreasing number of classes especially in science subjects, lack of an overall conception and methodology for introduction and usage of innovations in the school course. Despite the fact that innovation technologies are more often used in teachers' work, the educational system continues to preserve the norms and patterns of traditional teaching, and due to this teachers adapt new technologies to the traditional ones.

The significant number of respondents' decreasing willingness to make and accept changes related directly to their pedagogical work is also worth noting.

Future development of education requires innovative pedagogical activity to be considered not only a factor for enhancing its quality and effectiveness, but also as a factor for increasing students' willingness and motivation for a life-long learning. It is teachers' most important task to achieve this goal, and modernization of educational process depends on their pedagogical skills, creative potential and innovativeness.

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