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HOME Revista ESPACIOS ÍNDICES / Index A LOS AUTORES / To the AUTORS

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Motivational readiness of teachers to innovate in educational organization: Psychological aspect

La preparación motivacional de los profesores para innovar en la organización educativa: aspecto psicológico

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Contents

ABSTRACT:

The results of diagnostics of teachers ' willingness to innovative activity in educational organization are presented. It is established that, the readiness to implement innovations in the professional activity formed by teachers, depends on the manifestation of anxiety level, tendency to reasonable risk-taking, willingness to take responsibility in the terms of risks, the creativity of teachers.
Keywords: innovations, teacher, willingness to innovative activity

RESUMEN:

Se presentan los resultados del diagnóstico de la disposición de los docentes a la actividad innovadora en la organización educativa. Se establece que la disposición para implementar innovaciones en la actividad profesional docente, depende de la manifestación del nivel de ansiedad, la tendencia a asumir riesgos razonables, la disposición a asumir responsabilidades en términos de riesgos y de la creatividad de los docentes.
Palabras clave: innovaciones, profesor, disposición a la actividad innovadora.

1. Introduction

In the works of Bezrudny, Smirnova and Nechaeva (1998) it is said that in modern conditions, pedagogical innovation is considered as the main factor in the development of the education system.

As it is emphasized in the recent works of such authors as Vcherashny and Sukharev (2000); Rerke, Bubnova & Tatarinova (2019): in whatever aspect the development of education is considered (as reforming, modernization or optimization), from whatever position innovations in education would be analyzed (in terms of the scale of innovations, according to the criterion of objective and subjective novelty; from the standpoint of the

process or result), in any case, factor relations between innovation and the development of the education system are preserved.

At the level of public administration the social order for pedagogical innovations is included in all strategic documents in the field of education. The state not only stimulates the innovation movement in education, but also initiates these processes. On the other hand according to Gadzhiev (1989), state authorities provide the teacher with freedom necessary for innovative creativity within the framework of professional educational activities.

However, despite these progressive changes in the practice of development and implementation of innovative pedagogical projects, a number of problems remain (Rerke, Sukhostavska & Rogozhnikova, 2018). As the study of the experience of innovative educational institutions shows, the basic problem, is the formal nature of innovation. Educational organization, using consultants, scientists, develops a promising innovative idea, prepares regulatory planning documentation (program of development of the institution, the program of the experiment, etc.), analyzes and confirms the availability of the necessary resources, including human resources (Gracheva, Kulagin and Simaranov, 2001), undergoes examination at a high scientific and methodological level (Piotrovich, 2007), brings documentation to a practical stage and fails. On the one hand, everything is ready for the implementation of an innovative project, on the other hand, there are no innovative developments in the institution.

The question of the reasons for such a formal, as it seems, innovative pseudo-movement is extremely important and without solving this question the further development of innovative processes in education is difficult.

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2. Methodology

The purpose of the research is to study the formation of the motivational readiness of teachers to innovate in an educational organization.

This research was conducted during 2018-2019. The study took place on the basis of Irkutsk secondary school №73. The study involved 58 teachers aged 23 to 65 years. Work experience in the specialty ranges from 1 to 35 years. All examinees were women. Taking into consideration their position they are subject teachers, primary school teachers, as well as 3 managers - Deputy Directors.

For the diagnosis of personality traits that determine the innovativeness of teachers, we used the following methods: Curton's questionnaire “diagnosis of the subject's innovation” (Curton's,2002), test “diagnosis of personality creativity” (Torrens, 2006), test “evaluation of situational and personal anxiety” (Spilberger, 2002), diagnosis test “the degree of teachers' readiness for risk” (Schubert, 2002), test “assessment of the need for new sensations” (Zukerman, 2006).

The test technique of Curton “diagnosis of the subject's innovation” (Curton's, 2002) makes it possible to establish how difficult or easy a person retains the features of innovative or adaptive behavior over a long period of time.

Test “diagnosis of personality creativity” (Torrens, 2006) aims to study the creativity of the individual. Thus, Torrens understood creativity as the general ability of a person, based on the constellation of general intelligence, personal characteristics and the ability to productive thinking. In the context of studying innovations of teachers, we share the position of Torrens (2006) regarding the creative process, which consists of the stages of perception of a problem, finding a solution, the emergence and formulation of hypotheses, testing hypotheses, their modification and finding the result.

Test “evaluation of situational and personal anxiety” (Spilberger, 2002) is an informative way of self-assessment of the level of anxiety at the moment (reactive anxiety, as a state) and personal anxiety (as a stable characteristic of a person).

Diagnosis test "the degree of teachers' readiness for risk” (Schubert, 2002) will allow to establish readiness of teachers to risk, its necessity and expediency.

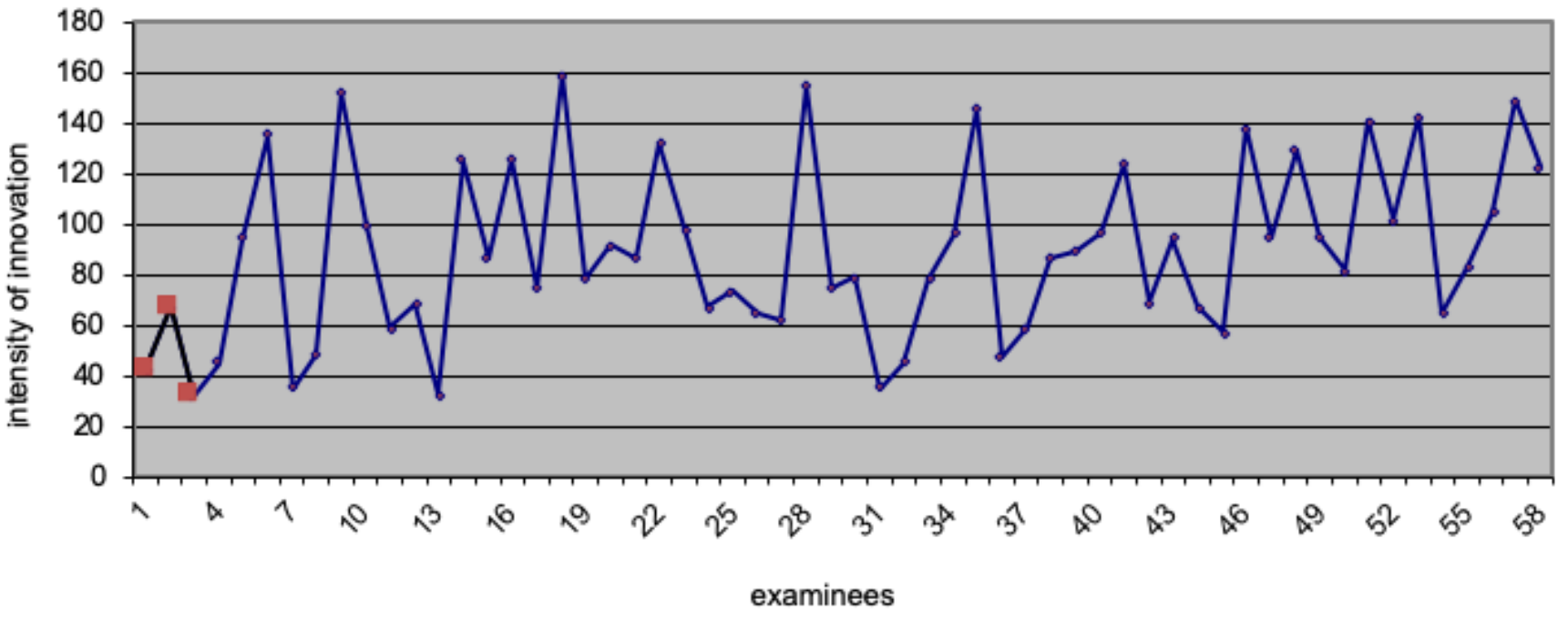
The test “assessment of the need for new sensations” (Zukerman, 2006) is designed to

study the level of need for sensations of various kinds. The search for new sensations is of great importance for a person because it stimulates emotions and imagination, develops creative potential, which ultimately leads to his personal growth.

3. Results

The study of the personal innovation formation of teachers as subjects of pedagogical activity was started with the test method of Curton (2002), which allows to identify how difficult or easy a person retains the features of innovative or adaptive behavior for a long period of time. The results obtained during the processing of the test method are shown in fig.1.

Figure 1
The manifestation of the index of teachers personal innovation



Analysis of the results presented in Fig.1. shows that the studied sample of group of teachers is characterized by a large variety of personal innovativeness. The minimum index of personal innovativeness was fixed at the level of 32-35 points and was found in 3 teachers characteristics (subjects 3, 13, 31). The maximum index of personal innovativeness was recorded at the level of 159 points (subject No. 18). According to the studied indicator, the sample has a wide range of indicators ($\sigma = 35.078$), which demonstrates its heterogeneity.

The presence of a high index of innovativeness was revealed in 15 teachers' characteristics. Its indicator ranged from 120 to 159 points. This group included 5 teachers of an educational institution and one leader (subject No. 9). In the process of choosing the answers to the questionnaire, these subjects chose a high degree of agreement (4-5 points) on statements about attractiveness to people who often change their profession, about readiness to take risks in their professional activities when it comes to an interesting new project, about their tendencies to disturbing the team and so on. This group of examinees (subjects) can be referred to innovators.

The presence of a low index of innovativeness was revealed in 13 teachers characteristics. There were no management representatives (leaders) from educational institutions in this group. Individual indicators of the innovativeness index for this group of subjects ranged from 32 to 60 points. In the process of working with the questionnaire, these subjects showed disagreement (1-2 points) with regard to taking risky events, which may bring positive results later; manifestation of conservatism with regard to changes occurring in society; a negative attitude towards reforms.

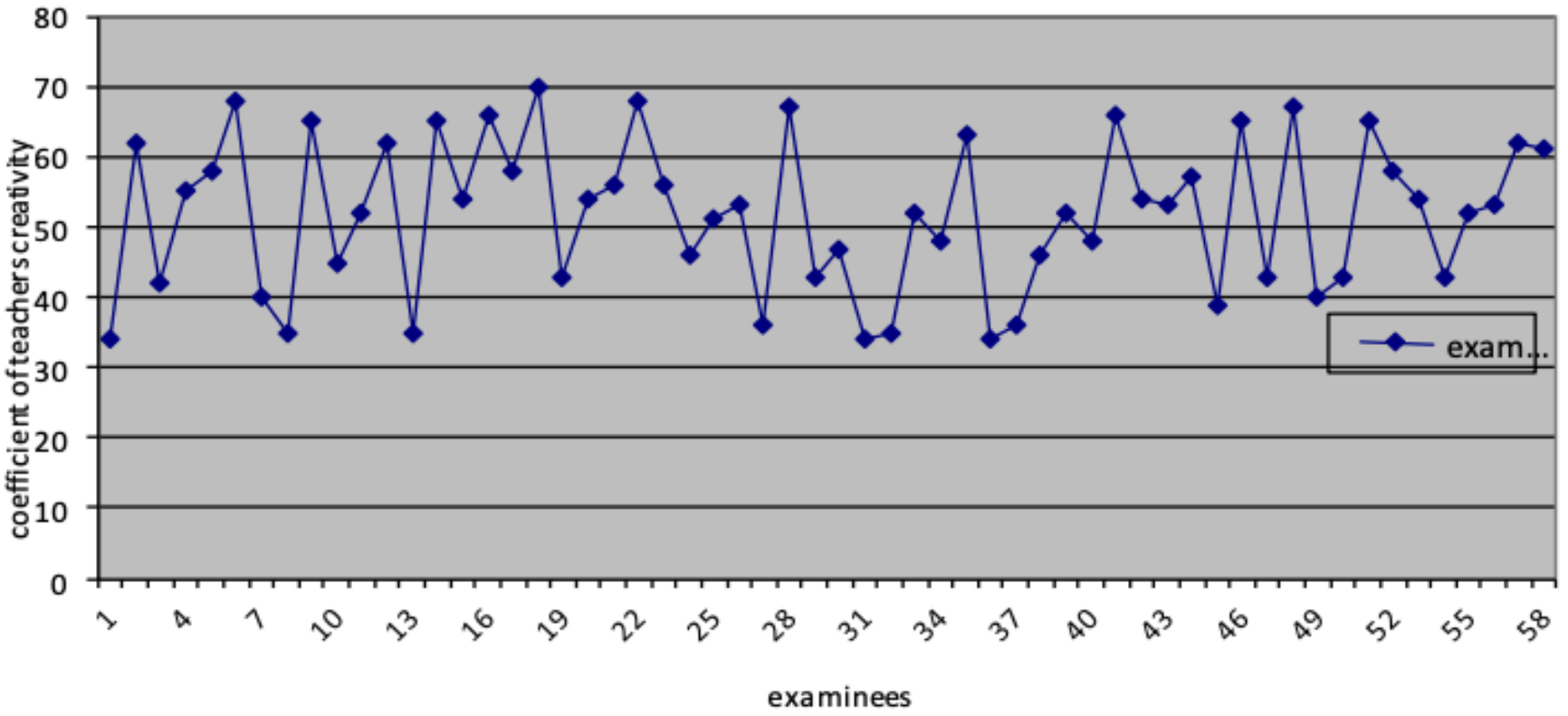
The rest of 30 teachers, including 2 managers, demonstrated an average value of the index innovativeness, which ranged from 61 to 119 points. These subjects showed agreement (4 points) regarding readiness for changes occurring in their professional activities, neutral results were observed in statements regarding the manifestation of their own initiative to implement a reform in activity (3 points); negative attitude, disagreement (1 point) in

relation to willingness to invest their own funds in risky events.

Thus, according to the results of the innovativeness diagnosis by Curton. (2002), the subjects as a whole, are characterized by different levels of personal innovativeness, the polarity of the agreement manifestation in relation to the reforms and teachers' personal contribution to the implementation of reforms in their professional activities.

Let us present the results of the study of the sample group using the Torrens' Personality Diagnostic Technique "figured test" (2006). Using the test, we tried to determine the fluency (speed and ease of generating new ideas) and originality (the ability to generate not just options, but new, not template options and ideas) of our examinees. The combination of these two properties will allow us to ascertain about the creativity of the teacher. The results are presented in fig.2.

Figure 2
Indicator of situational anxiety among teachers

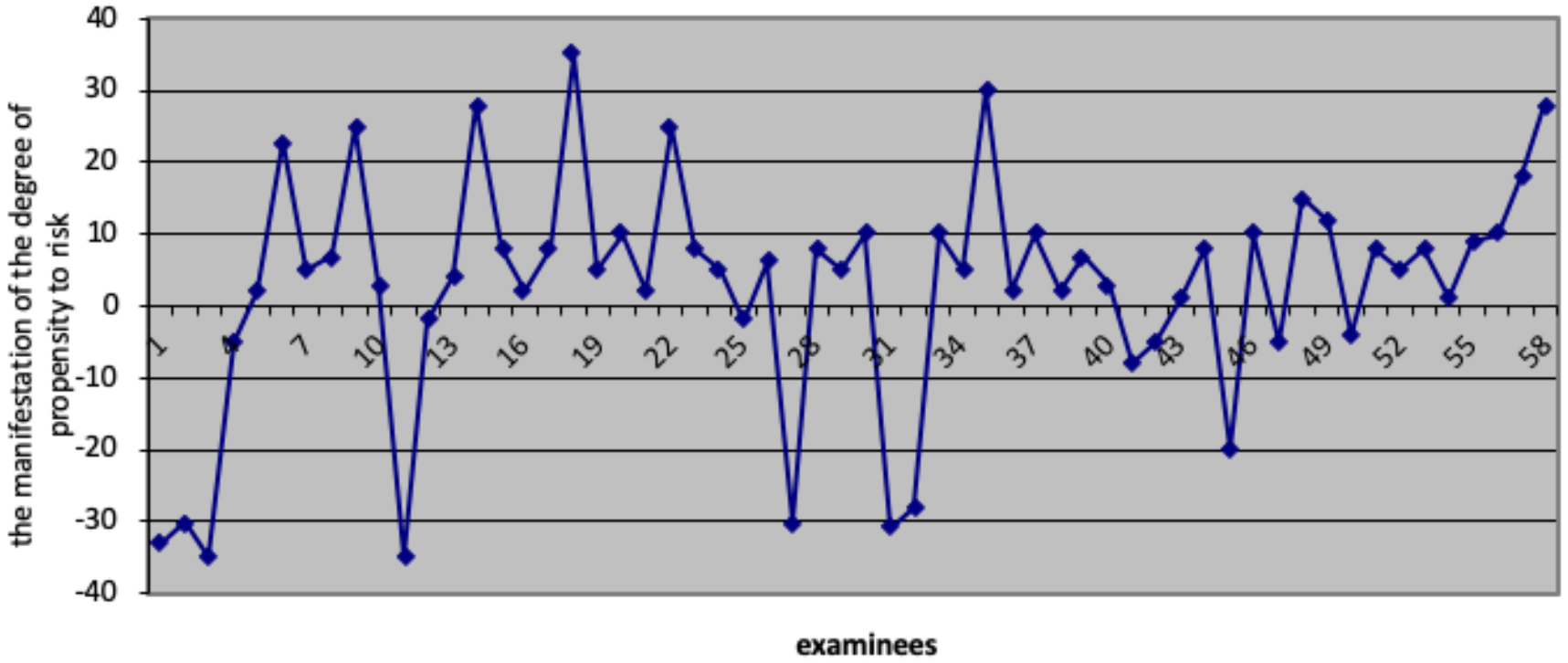


21 teachers demonstrated high rates of situational anxiety. The maximum result of 3.8 points (very high anxiety) belonged to subjects № 1 and № 31. 7 subjects showed low indicators of personal anxiety. The lowest possible result of personal anxiety was found in the characteristics of subjects № 18 and № 31 (individual index was 1.3 points). According to the studied indicator, the sample has a large variation of indicators $\sigma = 0.68$, which shows its heterogeneity.

For successful innovators, indicators of medium and low situational and personal anxiety should be typical. Educators that meet these indicators can be characterized as having the necessary level of readiness for innovation. Teachers who have high anxiety, are determined by the following features: not ready for innovation, their preparation is *appropriate*; for this purpose, those measures are recommended that aim at alleviating anxiety and fears in the behavior of a given teacher (raising the level of social protection, participation in appropriate psychological training, etc.). It's not appropriate to use such teachers with very high or very low anxiety as innovators.

In addition to this technique, a risk readiness diagnosis was carried out using the Schubert test (2002). The results are shown in fig.3.

Figure 3
The manifestation of the degree of propensity to risk teachers



The analysis of the results presented in fig.7. shows that the studied sample group of teachers is characterized by a sufficient variety of manifestations of the teachers degree of propensity to take risks. The minimum degree of risk appetite is presented by the teachers № 1,2,3,11,28,32 and ranges from -35 to - 28 points. The maximum degree of risk appetite is presented by the teachers No. 6.9, 14, 18, 22,35, 58, which is from 20 to 35 points. The maximum number of points (35) was identified in the characteristics of the examinee No. 18. According to the studied indicator, the sample group has a variation of indicators σ = 16,12, which indicates its heterogeneity. The results of this technique have a high degree of conjugation with the results of the questionnaire search for new sensations of Zuckerman M. (2006) ($p < 0.01$).

3.1. Discussion

Summarizing the results on technics of diagnosing personal qualities that determine the innovativeness of teachers, assessing the need for Zuckerman's M. (2006) new sensations, personality creativity, assessing situational and personal anxiety, as well as the degree of teachers' readiness to take risks, we get the following results. We can divide the whole sample group of teachers into five groups according to their level of readiness for innovative activity.

We identified teachers who demonstrated high levels of personal innovation and creativity, normative and with a tendency to low rates of personal and situational anxiety, with an optimal manifestation of the need for new sensations and risk appetite in the first group. We identified this group as a group with a high degree of readiness for innovation, and it included 5 teachers. An interesting fact is that only 1 leader entered this group - examinee No. 9.

The second group was formed by teachers who demonstrated average indicators of personal innovation and creativity, normative or with a tendency to high personal and situational anxiety, with the optimal manifestation of the need for new sensations and risk appetite. We identified this group as a group with an optimal degree of readiness for innovation, and it included 9 teachers. In this group of subjects there was the head teacher of primary classes (test number 52).

We identified teachers who showed average or below average indicators of personal innovation and creativity, normative or with a tendency to high personal and situational anxiety, with optimal or a tendency to a low manifestation of the need for new sensations and risk appetite in the third group. We have designated this group as a group with insufficient degree of readiness for innovative activity, it included 34 teachers. To ensure the dynamics of their professional growth, to ensure their readiness for innovation, these teachers need special psychological support.

We identified teachers who demonstrated low rates of personal innovation and creativity,

normative and with a tendency to high rates of personal and situational anxiety, with optimal or low manifestation of the need for new sensations and risk readiness in the fourth group. We identified this group as a group not ready for innovation and it included 7 teachers. These teachers are not ready for innovative activity and because of their individual characteristics they can not implement it under any circumstances.

We identified teachers who demonstrated high rates of personal innovation and creativity, low rates of personal and situational anxiety, a high need for new sensations and readiness for risk in the fifth group. We identified this group as a group not ready for innovation and it included 3 teachers. We define the lack of readiness for innovative activity of this group of teachers as the impossibility to estimate the situations of professional activity really because of the tendency to overestimate their capabilities.

4. Conclusions

In further work on the development of innovative thinking it is worth considering that innovation involves the ability of the subject both to perceive and comprehend, and if necessary, modify and implement new original ideas; in the practice of working the procedures can be used that are aimed at the development of its two parts mentioned. On the one hand, it is necessary to direct efforts to increase the sensitivity of the subject to the new and non-standard, and on the other-to develop the ability to operate these products of creative activity.

Summarizing the results of the study, we emphasize that teachers have different levels of readiness for innovation. However, in general, the susceptibility of the teaching staff to innovations is at an “acceptable” level, the majority of the surveyed teachers do not have barriers to mastering innovations, they constantly follow the advanced teaching experience and are engaged in self-education.

Based on the results of the study, we consider it advisable to recommend the implementation structural-functional model of the formation of teachers' readiness for innovation into the practice of institution. That model includes:

- the target component, which expresses the purpose of training - the formation of teachers ' readiness for innovation.

- the subject component associated with the fact that in the traditional system of training, training subjects and trained subjects on their positions in the pedagogical process are clearly separated; in the innovative model, built on the interchange of innovative experience, the position of the subject may change-in one case it acts as a student, in the other, as having experience of innovation, can become a teacher.

- substantial component: includes the stages of readiness of teachers to innovative activity, motivational-targeted, cognitive-informational, operational-active, procedure-creative and reflexive-evaluative stages.

- organizational and structural component: for different levels of readiness of teachers reflects the most appropriate forms of training (for example, open lessons, methodical days, scientific and practical conferences, video conferences, webinars and seminars, workshops, trainings, pedagogical workshops, etc., expert advice as a form of individual training, tutoring).

- technological component: ensures the use of educational tools, methods and technologies of training that meet the specificity of the goals and content of the innovative model.

- productive component: a model aimed at obtaining a personal result, provides also a social effect, since the result of the training actually becomes the readiness of teachers of secondary schools for innovative activities.

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[Index]

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