Classroom-based and remote methods of creative potential development of a teacher in the process of advanced training

Galina Savelevna Samigullina

Kazan State Federal University, Kremlevskaya, 18, 420008, Kazan, Russia

Abstract. The goal of the article is the use and comparison of classroom-based and remote methods of creative potential development of a teacher in the process of advanced training. The use of classroom-based and remote methods, which promote the development of creative potential of a teacher, is considered on the example of complex integrated tasks.

Keywords: creative potential of a teacher, complex integrated tasks.

Introduction

The fundamental documents, which define the development strategy of native education, "The National Doctrine of Education in the Russian Federation" and "The Concept of the Russian Education Modernization for the period until 2015", emphasize a very special role of education in the process of development of potential of a personality. The education's aim is not only to give a person necessary knowledge, skills and abilities, but also to assist the implementation of his/her creative potential.

The signing of the Bologna Agreement by Russia meant its involvement into the world educational space, the necessity of implementation of education competence-based paradigm, development of creative potential of a teacher.

Under the conditions of declared humanization of the Russian education content there appears a threat of creative potential loss of fundamental disciplines, shortage of the already existing gap between theoretical knowledge and practical activity, transfer of logical form of scientific knowledge into the activity form. There are noted the acquisition of knowledge which is not connected to the world of human needs, increasing transfer of children from inner thoughts formation based on the imagination (enlightenment, afterlight), into the instructive-informational psycho-programming which leads to the increase of pupils' stress [1,2].

We build the development of creative potential of a teacher of Geography and complementary sciences on the basis of the paradigm of the Russian education fundamental character preservation.

Under the creative potential we understand a complex integrated professional-personalized phenomenon that activates components (motivational-axiological, theoretically-analytic, reflexive-projective) which find their comprehensive expression in the corresponding level of development of creative potential (theoretical, reproductive-creative, creative-reproductive and authorial), type (reproductive, constructive, innovatory, creative) and creative attitude of a teacher (observer, participant, analyst, researcher); which wholly condition a teacher's readiness for the productive (effective) teaching activities [3, p.51].

The Russian Pedagogics has two methodological vectors - objective methods which narrow the passing of objective stereotypes, and meta-methodological. Modern edifying theories call on meta-methods under the condition of denial of irrevocable withdrawal of objective groundworks and their regularities. The subject of meta-method is a human as a "intellectual" and "speaking" species.

Let us study this approach on the example of use by a teacher of Geography of intersubject communications opportunities, which have long fallen out of the educational standards of Russian schools. The means of development of professional-creative skills of a teacher is a range of selected and interconnected complex integrated tasks (CIT) which have the generalization pattern as a basis [4].

The solving of CIT is connected to the productive activity - transfer of acquired knowledge and means of activity into a new situation by means of the so-called active methods of education [5].

CIT are specific constructs that allow modelling (simplifying, complicating, using different language means), forming of patterns of creative thinking: reveal common denominators; define possible hypothesis; mutually complete, exchange and probatory use different language means (semantic, verbal, graphic); classify and unify different concepts; integrate the acquired knowledge into the new connections [6].

The pupils can be in the situation of self-determination, creation of conditions under which it is possible to solve the problems of professional activity with the possible ratio of the given conditions of activity (degree of task complexity, forms of performance etc.) on the basis of own abilities of implementation of activity [6,7,8,9].

The technologies of creation and usage of CIT were being worked out mainly in the form of classroom-based work in the process of advanced training of teachers of Geography, Biology, Chemistry, Physics.

The formation of ICT of pupils' and teachers' competency in the system of continuous education was tested in March 2012 within the framework of advanced training courses for teachers of Geography of the Republic of Tatarstan using the remote module "Diagnostics of a teacher's readiness for implementation of competency building approach".

The problem was the fact that it seemed that the creativeness has no unit of measure, but at the same time the development means both quantitative and qualitative changes [10].

Let us compare classroom-based and remote CIT.

The following indicators will serve as the criteria for comparison of classroom-based and remote solving of CIT:

1. participation (involvement) of listeners;
2. specification of every listener's contribution to the process of solving CIT (history of exits, map of the whole activity of a teacher and pupils, report on user, grades);
3. implementation of competencies types (cognitive, creative, organisation-active, communicative);
4. ratio of rational and emotional dominants of educational process;
5. selection of possible ways of solving problem, heuristic search.

The first criterion - participation (involvement) is obvious under the use of classroom-based method of solving CIT which is accompannied by the inerest of all the listeners, special emotional atmosphere in the classroom; *eventful cha*r*acter of* education. E*v*entfulness in educational process develops as a antithesis to the everydayness, monotony, routine, absense of wish of the new; professional isolation of teachers in the school.

As for the *second* criterion, the solving CIT in the classroom-based conditions does not allow tracking the detalization of contribution of every listener.

Remote variant of solving CIT allows fixing all the educational process: history of exits of listeners on separate subjects, presentations, recommended literature etc. [Table 1]; map of activity of a listener, teacher, administrator in the variant of Table and Graphic [Table 2]; progress of listeners, report on user [Table 3], personal changes.

Table 1. History of exits (fragment)

Activity	Reviews	Last exit
News forum	70	Thursday, March 28, 2013 19:03 (1 day 9 hours)
Glossary	84	Thursday, March 28, 2013 19:08 (1 day 9 hours)
Glossary of a module	86	Friday, March 29, 2013 20:11 (8 hours 45 minutes)
Tests of the module	157	Friday, March 29, 2013 22:01 (6 hours 54 minutes)
Recommended literature of the module	31	Thursday, March 28, 2013 19:20 (1 day 9 hours)
Presentation of the module	88	Thursday, March 28, 2013 20:56 (1 day 8 hours)
Topic 1 Lecture 1	244	Friday, March 29, 2013 19:08 (9 hours 48 minutes)
Homework 1	278	Friday, March 29, 2013 22:22 (6 hours 34 minutes)
Homework 2	183	Friday, March 29, 2013 22:16 (6 hours 39 minutes)
Homework 3	127	Friday, March 29, 2013 22:20 (6 hours 35 minutes)
key of self-analysis for the homework 1	127	Friday, March 29, 2013 22:02 (6 hours 54 minutes)
tests on topic 1	353	Saturday, March 30, 2013 04:42 (13 minutes 59 seconds)

The history of exits allows the teacher to define the longest time expenditures of the listeners (in our case tests on topic 1) and, on the contrary, to define the quantity of the minimum reviews.

Table 2. Map of the whole activity (teachers and pupils) for 2 weeks of study (fragment)

End of period (day)	Student	Teacher	Administrator	All
March 30, 2013	520	0	0	520
March 29, 2013	668	14	18	700
March 28, 2013	310	35	9	354

The map of the whole activity (teachers and pupils) for 2 weeks of study allows to state that the remote education in comparison to the classroom-based one needs quite a significant time for registration of listeners, the teacher is obviously nervous [Table 2].

Report on user allows getting information, first of all, about elements of grading; secondly, about grades, percentage of tasks fulfilment etc. [Nable 3].

Table 3. Report on user - Tatiana Talgatovna Malysheva

Element of grading	Grade	Range	Percentage	Responses
tests on topic 1	7.25	0.00-8.00	90.62 %	
tests on topic 2	8.00	0.00-10.00	80.00 %	
tests on topic 3	6.67	0.00-10.00	66.67 %	
tests on topic 4		0.00-10.00		
tests on topic 5	9.60	0.00-12.00	80.00 %	
tests on topic 6	10.00	0.00-12.00	83.33 %	
level task	97.67	0.00-100.00	97.67 %	

Summary of the grades, got during the course training, is convenient as it allows differentiating it and, moreover, seeing an average percent of fulfilment of all the tasks of the module [Table 4].

Table 4. Grades

Name/Surname test answers...	questions and...	tests on topic 7	tests on topic 1	tests on topic 2	tests on topic 3
tests on topic 4	tests on topic 5	tests on topic 6	level...	Total of the course	
Albina Rashydovna Adiatullina	-	-	-	7.88	6.70	5.00	-	-
5.00 8.00 - 63.87								
Average total	0.00 %	0.00 %	0.00 %	48.69 %	61.75 %	36.89 %		
32.26 % 0.00 % 34.95 % 49.68 %								

The third criterion is connected with the formation of the following competences: cognitive: to feel, ask questions, find reasons, understand; creative: inspiration, imagination, pliancy of mind, forecasting, criticism; organisation-active (methodological): realisation and setting of goals, organisation of reaching goals, rule-making, selfconsciousness, self-actualization; communicative: search, transformation and transfer of information, playing different social roles, use of telecommunications.

The use of telecommunications as a part of communicative competences in the process of transformation and transfer of information is obvious by the remote education.

Simulation of the social context of professional activity, possibility of dynamic development of educational content (it is usually given in the statics) is fully implemented with the help of the system of educational problems, problematic situations and tasks in the real-life interpersonal professional communication (subject-subject relationships).

The fourth criterion is fully implemented by the classroom-based method of CIT solving since it helps to solve pragmatic tasks of education, reveals its additional resource: knowledge perceived in the unification of the rational and emotional are better remembered. Besides, classroom-based work allows uniting teachers which are isolated from each other in a common professional environment.

Emotional resource of education provides mutual understanding, destroys possible psychological barriers, and enriches the communication of teachers with joy of cognition, common inspiration.

According to I. E. Unt, creativeness is based on divergent thinking which is characterised by the following features: ability to see problems, smoothness of flow of ideas and thoughts, flexibility and originality of thinking. She is detected with the help of open tests-tasks, i.e. such tasks for which it is possible to make an innumerable quantity of correct tasks.

Non-standard solving of CIT is connected with its "labyrinth" character, heuristic search which promote the possibility of unification, comparing, contrasting of phenomena, objects, which have no direct connections to each other on the basis of indirect indicators. Unfortunately, in the process of remote fulfilment of CIT the situation is to be re-modelled by means of implementation of a number of simplifying solutions of mathematical and verbal assumptions of "yes" and "no" type; the fulfilment of CIT is restricted be rational selection of possible ways of a problem solving in the form of test tasks [5].

It is reasonable to note that the German Philosopher Arnold Gehlen paid attention to the fact that break of direct connections between people, their replacement by indirect and remote ones can lead to the disturbance of the system of prompt (sensual) response for the calls of transformation, and to the fact that human feelings can express themselves effectively only within the range of direct communication but not on the remote basis.

That's why in spite the fact that internet technologies form new creative space, virtual communication cannot replace direct contacts between people. Classroom-based forms of work destroy professional isolation of teachers, but at the same time the inner sides of pedagogical phenomena turned out to be hidden; it is impossible to provide a complete objectivity of information while using this method.

Completing qualitative ideas of professional-creative development of a teacher by formalized generalisations, acquired in the process of remote education, the pedagogical theory assume a necessary strictness and steadiness.

It is obvious that the development of creative potential of a teacher contemplates the combination of classroom-based and remote methods of education aimed both at intellectual development of a personality and comparing the level of individual achievements in education by both traditional convergent, algorithmic way and divergent, multidirectional one.

Corresponding Author:
Dr. Samigullina Galina Savelevna
Kazan State Federal University
Kremlevskaya, 18, 420008, Kazan

References
1. Bazarnyi, V.F. 2004. Influence of the modern school on spiritual area of society. National education. 9: 169-178.
2. Robotova, A.S. 2010. Are the "inner soul agitation" reasonable? Higher education in Russia. 1: 67-74.
3. Samigullina, G.S., 2013. Development of the creative potential of a teacher of natural science disciplines in the system of advanced training. Monograph. Kazan: Otechestvo, pp: 230.
4. Henner, E. K., 2008. Formation of ICT competency of pupils and teachers in the system

of continuous study. Moscow: BINOM. Laboratoriya znaniy, pp: 188.

5. Yankovskaya, E. A., 2009. Heterostructural principle of cognitive experience structure PhD thesis. Arkhangelsk.

6. Beatty, K., 2003. Teaching and researching computer-assisted language learning. Pearson Education. London, XII, pp: 259.

7. Duckworth, M., R., Turner and A. Lane., 2009. Business result: upper-intermediate student's book. Oxford: Oxford University Press. pp: 167.

8. Dudeney, G. and N. Hockly, 2007. How to teach with technology. Pearson Longman. pp: 192.

9. Rich, M. 2010. Textbooks that professors can rewrite digitally. New York Times. Febr. 21.

10. Onwuegbuzie A.J. and N.L. Leech, 2005. On becoming a pragmatic researcher: the Importance of combining quantitative and qualitative research methodologies. International journal of social research, 5 (8): 375,388.

4/24/2014