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TRAINING FUTURE TEACHERS
TO THE BRICOLAGE APPROACH INVOLVING PARENTS
IN EDUCATIONAL PROCESS

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Abstract

In the contemporary society the educational sphere faces a number of problems and in order to solve them the educational process must be turned into innovative and purposeful implementation of alternative approaches that contribute to the development of useful self-learning and self-education skills. One of such approaches to modern education is bricolage. This method of practical study through non-standard application of various materials implies that previously created objects are used as resources for new projects. In this paper, an attempt is made to optimize the process of teaching the English language to school students through practical implementation of the alternative method called "bricolage" based on the Google Classroom service. The results obtained after the completion of the experiment make it possible to talk about its success and the validity of the choice of the experimental model, in which the parents of the pupils were a tool for bricolage. As the next stage in the study of bricolage as an alternative method of teaching, designed to help solve existing problems of education, it is possible to propose an experiment similar to that which has been conducted, but in which the students of the junior classes will be the instrument of bricolage.

1. Introduction

In the modern dynamically evolving world, education is an essential component of a child's development and formation as an individual with his own characteristics, interests and vocations. Therefore, educational process must take into account and adapt to the changes that take place in society. Processes transforming the techniques and methods used in pedagogical practice are observed worldwide, including Russia.

Today, one of the innovative educational trends is bricolage. This is a teaching method where a teacher uses available resources, materials and tools, even those that were not originally intended for educational needs, trying to present a new teaching method to their students by replacing the routine educational process with an intense entertaining activity (Garlitz, 2015). The teacher approaches a new project creatively, using exactly what he or she considers necessary, since such a method does not require or imply the availability of ready-to-use methodological guidelines and permissions of management (Almazova, Baranova, & Khalyapina, 2017).

2. Problem Statement

At present, the sphere of education faces a number of problems which cannot be solved given the traditional ways of educational process organization (Tikhonova, 2015), and, in our opinion, they can be handle successfully by supplementing the existing educational system with alternative methods of education, including non-traditional methods and techniques of educational process organization and greater involvement of information technology. In the context of the forever increasing educational workload and the lack of time allocated to mastering and consolidating knowledge in general education institutions, it becomes more important to use the teaching methods that provide students with the opportunity to study additional theoretical and practical material independently at a time convenient for them.

The variety of methods, technologies, forms and methods allows teachers to update and supplement the existing educational process, work with different categories of students using modern technologies and interactive teaching tools (Akutina, 2018). At the same time, the rate at which innovations are introduced in the national teaching practice is not so high and not all innovations are practically implemented, due to the existing problems in the educational sphere, namely:

- the technical infrastructure of general education institutions is insufficient for active application of innovative teaching methods based on modern information technology;
- the difficulties that a teacher faces today when trying to interest students, due to a change in their psychological characteristics, and, as a consequence, decreased motivation to learn;
- an increase in the volume of the material to be studied, and not enough time dedicated to mastering and revising information

The causes of the abovementioned problems are different: the first one is defined by the level of financial security of a general education institution, the second one is related to a teacher's personal perception of the contemporary realities of teaching activity, and the third one is connected with the

changing requirements for educational services at the school level. While the solution to the first problem involves receiving large-scale financial support on the part of the state, the solution to the second problem is possible only through a change of the teacher's personal attitude and perception of his or her teaching activity, as well as through understanding and accepting the changes in the psychology of modern students. Given the above, this paper makes an attempt to solve the problem related to the fact that the time of classes is insufficient for schoolchildren to effectively master the volume of information included in the educational program.

The solution as a whole can be presented in a form of a consistent process aimed at changing the mindset and perception of teachers and students, transforming the learning process with a more active application of modern information technology and alternative teaching methods (Shipunova, Mureyko, Berezovskaya, Kolomeyzev, & Serkova, 2017).

Modern trends in education focus on changing the process of informational interaction between students and teachers, on making students acquire skills and abilities that allow them to manage large volumes of available information independently and ensuring that creative non-standard thinking is formed by students (Waterworth, 2017). The main goal of the innovative activity of a teacher is the qualitative change in the personality of a student with a greater emphasis on creating conditions for self-motivation and self-education of the student.

One of the innovative teaching methods outlined in the report of The Open University of Great Britain, "Innovation Pedagogy", published in 2014 (Sharples et al, 2014), is Bricolage, a practical process of studying something by reworking existing material, using previously created objects suitable for independent use as resources for new designs and projects. Bricolage can be the starting point for creative innovation that allows inventors to combine and adapt tools and theories to generate new ideas and interact with relevant groups of people to ensure the successful practical implementation of innovations (Zemlinskaya & Fersman, 2017).

In the report on pedagogical innovations, bricolage takes the tenth place, far from being the least, though. Bricolage, with its main feature being the transformation and adaptation of any available materials and practices to it interest, can easily use any of the teaching methods listed in the report as one of the components of a comprehensive teaching method (Muñoz-Cristóbal, Gallego-Lema, Arribas-Cubero, Martínez-Monés, & Asensio-Pérez, 2017).

3. Research Questions

The possibility to optimize educational process by using bricolage as an alternative way to solve the problems of education by implementing a distance Bricolage course based on Google Classroom web service: "Personality". This course is aimed at increasing the knowledge secondary school students have on specific aspects of the English language and at mastering the skills to apply the acquired knowledge in practice by involving students' parents as learners in the process of learning English (Sulima, 2017). It is assumed that active participation of parents in this course, their support for the initiative and activities of their children will become an additional incentive for students, increase their interest in obtaining new information, their responsibility for the integrity and quality of the acquired

material and its correct representation to parents (Almazova, Kostina, & Khalyapina, 2016). In view of the aforesaid, it was decided to develop and implement an educational course which meets bricolage principles and is based on the free Google Classroom web service (Derboven, Geerts, & De Grooff, 2017).

4. Purpose of the study

The main goal of this work is to study the specific features and principles of educational process organization using bricolage as an innovative method of teaching English to 9th grade secondary school students. The experiment was aimed at improving the level of English by ninth grade students of secondary school on the topic "Who am I?", the grammar topic "Questions" and mastering the skills of practical application of the acquired knowledge by involving students' parents in studying English as learners.

5. Research Methods

In the practical part of the paper we describe and analyze the experiment on optimization of the educational process of teaching English to 9th grade students at secondary general education school using information technology and bricolage as an alternative teaching method. The educational Bricolage course "Personality" implies that students and their parents study the provided grammatical and lexical material together, while the students partly act as teachers, since they are assigned a task to explain to their parents the grammar rules and tell them how interrogative sentences are generated, to control the expansion of vocabulary and to make a presentation together about a "famous person".

5.1. The research hypotheses of this study
- involving students' parents in the process of learning English with children acting as teachers, i.e. involving parents as a bricolage tool;
- revising and consolidating the knowledge, abilities and skills students achieved through explaining the studied material to their parents;
- increasing interest of students in learning English, rise of their personal responsibility for achieving personal positive results and for joint activities successfully implemented with their parents (Parmaxi, Zaphiris, & Ioannou, 2016).

5.2 Description of the Instrument
This experiment is based on two key elements:
- Google Classroom web service;
- students' parents as a bricolage tool.

The abovementioned Internet service was chosen as in August 2014 Google created the Google Classroom service (Waitoller & Artiles, 2016), designed to help teachers organize the learning process, save time and get rid of paper work by automatically sending copies of documents to all students. Currently, the Google Classroom service is a convenient and affordable way to communicate with students and teachers, as it is distant and can be addressed at any convenient time and outside the

classroom. We should note the benefits of identifying participants by a personal Google account with the name of every participant being automatically displayed on the list of course participants (Bylieva, Lobatyuk, & Rubtsova, 2018).

In order to comply with the basic principle of bricolage, which lies in using the available resources and means in a non-standard way, the experiment uses parents to revise and consolidate the acquired knowledge through teaching parents.

5.3 Target group

In order to conduct an experiment on the educational process optimization through implementing a distance learning Bricolage course "Personality" based the Google web service, a group of 20 people was formed (10 ninth grade students of a secondary school in St. Petersburg and 10 parents). Initially, the teacher with the help of the existing Google Classroom functionality emailed 20 invitations to participate in the Bricolage course "Personality".

6.   Findings

The Bricolage course "Personality" is organized on the basis of grammar and vocabulary material related to the topics "Questions" and "Who am I?", aimed at acquiring skills to describe one's own personality and a famous personality, whose qualities are admired, as well as developing the ability to competently ask questions and obtain the necessary information.

At the beginning of the course a placement test was offered to all participants in the experiment in order to determine the general level of knowledge on these topics.

The results of the placement test and subsequent tasks of this educational course were assessed on the basis that 1 point was assigned for each correct answer, the overall score for the tasks was determined as a percentage of the maximum possible number of points.

Table 01 shows the results of the placement test.

Table 01. Results of Test 1 of the Bricolage course "Personality"

Bricolage course «Personality»			Total score	
Data on the participants of the course				Test 1
Second name	First name	Email address	100	100
Class average score				
Student	1		100.0	100.0
Parent	1		90.0	90.0
Student	2		86.0	86.0
Parent	2		67.0	67.0

Student	3		86.0	86.0
Parent	3		67.0	67.0
Student	4		90.0	90.0
Parent	4		90.0	90.0
Student	5		100.0	100.0
Parent	5		100.0	100.0
Student	6		100.0	100.0
Parent	6		100.0	100.0
Student	7		52.0	52.0
Parent	7		57.0	57..0
Student	8		63.0	63.0
Parent	8		61.0	61.0
Student	9		78.0	78.0
Parent	9		59.0	59.0
Student	10		95.0	95.0
Parent	10		76.0	76.0

At the next stage the participants learnt some theoretical material and did a number of grammar exercises. The exercises were focused at developing the ability to use various types of interrogative sentences in a given situation.

When doing some tasks, students encountered difficulties in explaining the material to their parents. In such cases they asked the teacher for help and clarifications. So, for example, while analyzing the tag-questions, the participant pair Student 7-Parent 7 argued on the formation of the interrogative sentence in the Present Simple Tense. The student remembered the rule that if the auxiliary verb "does" is used in the sentence, then the main verb is used without an "s" ending. The Parent read the example "He understands the difference between introverts and extroverts, doesn't he?" In response to their request for more detailed information on this topic, the teacher sent them a detailed explanation on this issue.

Both parents and students carried out tasks responsibly and diligently. If a low score was

received because of many mistakes, the participants could resend the form with new answers (until the end of deadline for submitting tasks) in order to improve their final result.

For final assessment, the participants sent their presentations "famous personality", which contained lexical material on the topic "Personality". This presentation was a Power Point slide show, a video, where the Student described the slides talking about a celebrity and answered the questions that his Parent asked him during the presentation.

All participants of the Bricolage course "Personality" completed the final task before the deadline. The majority of participants in the course showed good results, 4 pairs of course participants received the maximum possible score (100%).

Table 02 shows the results of the final task and all previously submitted tasks of the Bricolage course "Personality", including Placement Test 1, and the total score of the course.

Table 02. The results of the Bricolage course «Personality»

Bricolage course: «Personality» Data on the educational course participants		Total	1 stage Test 1	2 stage Task 1	3 stage Task 2	4 stage Task 3	5 stage Final task
Second name	First name	100	100	100	100	100	100
Class average score		87.12	80.85	84.8	87.8	89.15	93
Student	1	99.2	100	100	96	100	100
Parent	1	92.8	90	91	87	96	100
Student	2	92.8	86	91	100	93	94
Parent	2	76.0	67	64	74	86	89
Student	3	91.8	86	100	83	93	97
Parent	3	81.6	67	73	83	93	92
Student	4	89.6	90	91	96	79	92
Parent	4	86.6	90	91	91	75	86
Student	5	99.2	100	100	96	100	100
Parent	5	97.8	100	100	96	93	100
Student	6	98.2	100	91	100	100	100

Parent	6	97.4	100	91	96	100	100
Student	7	68.0	52	64	78	71	75
Parent	7	84.4	57	91	91	89	94
Student	8	72.8	63	64	72	81	84
Parent	8	73	61	65	74	79	86
Student	9	86.6	78	81	87	89	98
Parent	9	66.6	59	65	67	69	73
Student	10	98.4	95	97	100	100	100
Parent	10	89.6	76	86	89	97	100

7. Conclusion

In the process of consecutive completion of tasks, the results showed a greater positive dynamic. A growth and preservation of high scores of both individual participants of the course and the class as a whole were observed. This growth was encouraged because the students were highly motivated to understand the topic suggested, so that they could subsequently explain it to their parents, check up all tasks independently and give explanations, if necessary. As the experiment showed, the active participation of the students' parents and their support for the initiative and activities of their children are an additional incentive for the students. It increases the students' interest in obtaining new information, their responsibility for the completeness, quality and correctness of the material they present to their parents.

Thus, the positive effect on the growth of the students' interest in the learning process organized with the use of bricolage as an alternative teaching method, and as a result, an increase in the level of knowledge acquisition, was caused by the fact that schoolchildren, partly acting as teachers, found themselves in a new but a rather responsible situation, when parents perceived students as someone more knowledgeable and used their recommendations when doing the tasks. Explaining, revising, saying out loud the theoretical part of the material for a number of times, and giving examples helped the students to remember information rightly and distinctly.

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