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The Efficiency of Modern Teaching Strategies in the Geography Class

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Abstract

The specialized literature of the last decade, rich in varied teaching strategies, highlights the increasingly important role given to the aspects related to the definition, design and application of educational strategies able to facilitate to a larger extent the optimization of the educational process. A modern conception of the teaching strategy is represented by the focus on the use of active-participative methods accompanied by teaching materials and by means that come to support this approach. Modern teaching strategies promote an active learning, collaboration between the students, and their advantages allow realization of multiple social interactions, development of the cognitive, social, communicational and interpersonal intelligence competencies. In the same time, the types of strategies favour improvement of the quality of education, optimal transfer of knowledge, confrontation of ideas, comparison of the ways of learning, stimulating the taking on of individual responsibilities, students' autonomy, critical thinking and positive attitude towards learning act.

Keywords: modern teaching strategies, traditional methods, modern methods, mixed methods, efficiency.

INTRODUCTION

Both alternative methods and traditional methods are permanently used in the teaching-learning-evaluation process in Geography, with all their limitations and advantages, as they combine and complete one other. In this sense, the specialized teachers ask themselves: *what is the best way to organize, unfold and realize the teaching approach?*, so that the competencies pursued may be realized and the students' results may record a progress. In the realization of this approach, there comes the question: *what methods need to be integrated - traditional or modern - in the teaching-learning-evaluation of the specific contents of Geography?* In order to find a possible answer to this question, the present study relied on the realization of an experiment applied to three classes of lower secondary education, from the "Coresi" School of Târgovişte City.

MATERIALS AND METHODS

The research was carried out during the period January-March 2013, on a sample of 33 students from grade 5 A, 26 students from grade 5 B and 27 students from grade 5 C, of "Coresi" School, Târgovişte. The students' groups were heterogeneous intellectually and in point of the dominant learning styles, and geography was studied for two hours a week (one hour as core curriculum and one hour as differentiated curriculum). The experiment consisted in teaching-learning-evaluating the contents of the teaching units "The Hydrosphere", "The Biosphere and the Pedosphere" and "The Geography of the Population and of the Human Settlements" using, in turns, at each class, traditional methods, alternative methods and mixed methods resulted from the combination of the alternative teaching-learning-evaluation methods with the traditional ones. In this sense, the research has been divided into three stages:

***Pre-experimental stage*:** it consisted in the determination of the competencies that each student needs to acquire through the teaching-learning of the contents pertaining to each of the three teaching units mentioned and in the selection of the work strategies. The teaching unit *The Hydrosphere* was approached by using mainly traditional methods at grade 5 A, modern methods at grade 5 B and mixed methods at grade 5 C; the teaching unit *The Biosphere and the Pedosphere* by modern methods at grade 5 A, mixed methods at grade 5 B and traditional methods at grade 5 C, and the teaching unit *The Geography of the Population and of the Human Settlements* by mixed methods at grade 5 A, traditional methods at grade 5 B and modern methods at grade 5 C, so that each set of teaching strategies may be applied, in turns, at each grade, in order to compare the results of the students' learning (Table 1). In order to select the learning-teaching methods at each grade, for each educational unit, an initial test was applied.

Table 1. Teaching-learning methods and techniques used, on educational units and classes

Educational unit	Grade	Teaching-learning-evaluation methods and techniques
The Hydrosphere	5 A	traditional
	5 B	modern
	5 C	mixed
The Biosphere and the Pedosphere	5 A	modern
	5 B	mixed
	5 C	traditional
The Geography of the Population and of the Human Settlements	5 A	mixed
	5 B	traditional
	5 C	modern

The experimental stage: during this stage, the actual instructive-educative process took place, in the sense of the teaching planning and the unfolding of the teaching activities based on the previously-determined methods so that each group may benefit, in turns, of traditional, modern and mixed methods. At the end of each educational unit, the students were evaluated, and a database was created, containing the results obtained by each group.

3. The post-experimental stage: it brought to light the final analysis of the results, comparing the results of each of the three groups during the three teaching units, through the use of different methods, and compared the results of the three groups through a similar test for each educational unit, in the context of the use of different teaching-learning methods from one group to the next.

GENERAL OBJECTIVE

- to determine the implications of the application of the traditional and alternative teaching-learning-evaluation methods, in point of their efficiency, and of the realization of the competencies pursued, to increase of the students' motivation for learning.
- to realize models of teaching projects based on traditional, alternative or mixed teaching-learning methods and to determine their efficiency by comparing the results obtained following the application of these models in class.
- to apply summative tests in order to determine the efficiency of the teaching methods used, and to measure and compare the performances obtained by the students.

SPCIFIC OBJECTIVE

- to highlight the effects of the use of alternative and traditional teaching-learning-evaluation methods on the students' performances in the lower secondary school.
- to elaborate models of teaching projects using mainly traditional methods, alternative teaching-learning-evaluation methods or build a model of teaching project combining the two types of methods.
- to compare the results obtained by the students through the use of traditional, alternative or mixed teaching-learning-evaluation methods of the geographic contents included in the curriculum.
- to determine remedial activities based on the identification of typical students' mistakes, observed following the analysis of the test results, in order to improve them and in order for the teacher to select his teaching-learning methods depending on the reality of the respective group.

RESEARCH HYPOTHESES

The research hypotheses;

- involve the students in the teaching-learning-evaluation process in order to determine the obtaining of better school performances than those that could be obtained using traditional methods but also through the transmission of the information by the teacher;
- to give an active character to the traditional teaching-learning-evaluation methods, a character able to contribute to the improvement of the performances obtained by the students and to the increase of their motivation for learning.

In order to accomplish the goals set and to check the above-mentioned hypotheses, the authors used teaching methods such as: observation of the students' behavior, conversation, questionnaire (in order to gather the students' opinions concerning the teaching-learning-evaluation methods used), the tests method to record the students' progress in learning, the personal comment, the focus-group. In this sense, at grades 5 A, B and C, the authors applied teaching projects based on alternative, traditional and mixed teaching-learning-evaluation methods within the above-mentioned educational units.

RESULTS

The pre-experimental stage consisted in the application of a written initial evaluation test to all the student samples included in the experiment in order to have the possibility to observe the level of the students' knowledge and work habits in relation to the contents that are to be taught and learnt during the three educational units, based on previous learning and practical daily life examples, in order to build the new learning trajectory proposed. The results obtained were synthesized in Table 2 and reflect a similar level of knowledge and work habits for all the student groups at that moment.

Table 2. Results obtained by the pupils during the initial test

No.	Average - grade 5 A	Average - grade 5 B	Average - grade 5 C
1.	6.12 (six 12%)	6.25 (six 25%)	6.40 (six 40%)

During the experimental stage, the students learnt the contents of the curriculum for each of the three educational units, acquiring new work habits and certain attitudes specific for geography, in agreement to the didactic strategies adopted. Consequently:

- at grade 5 A, in order to teach-learn-evaluate the

contents of the educational unit *The Hydrosphere*, traditional methods were used, such as: systematic presentation, explanation, catechetic conversation, exercise, guided observation. The use of these teaching methods highlighted the following aspects:
- the students tried to follow the lecture given by the teacher;
- they accepted the ideas launched as being true;
- when they were asked to solve a task, although they worked individually, they tried to reproduce the knowledge transmitted by the teacher.
- at grade 5 B, only alternative methods were used in the teaching-learning-evaluation of the contents of the respective lessons: learning through discovery, heuristic conversation, problematization, case study, comparison, gallery tour, Venn diagram, anticipation guide, conceptual map etc.

During the whole lesson, the teacher had the role of moderator, in the sense of guiding the students, explaining notions, processes, terms, determining them to cooperate, to ask one another questions, in the sense of expressing, supporting certain viewpoints, realizing the tasks as well as possible.
- at grade 5 C, the traditional teaching-learning methods were combined to the alternative ones. The lesson included: systematic presentation, exercise, learning by discovery, heuristic conversation, problematization, SINELG method, comparison, gallery tour, Venn diagram. Using these methods in class, the authors noticed that the students reproduced the information presented by the teacher, but they also collaborated with one another to solve the work tasks proposed, to shape their own opinions, abilities, knowledge and attitudes specific to geography.
For the other two educational units, the dominant methods used were reversed, so that each group may benefit, in turns, of traditional methods, modern methods and mixed methods.

The post-experimental stage consisted in the application of a final evaluation test to the three student groups. The test was made up of items such as: matching pairs, filling in the gaps, problem solving, structured essay and it was identical and of average level for all the students. The results obtained by the three groups are highlighted in Tables 3-5 and Figures 1-3.

Table 3. Results obtained by the students at the summative evaluation test applied for the evaluation of the specific competencies and contents in the educational unit "The Hydrosphere"

No.	Educational unit	Grade	Teaching-learning methods	Average mark
1	The Hydrosphere	5 A	traditional	6.30
2	The Hydrosphere	5 B	modern	8.40
3	The Hydrosphere	5 C	mixed	7.25

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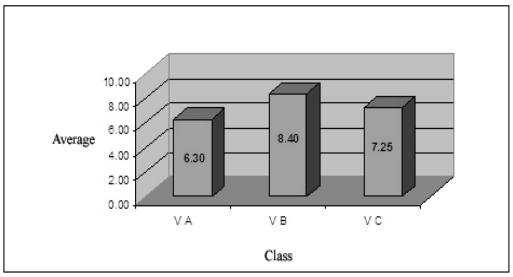

Fig. 1. Evaluation results for the educational unit "The Hydrosphere"

Table 4. Results obtained by the students at the summative evaluation test applied for the evaluation of the specific competencies and contents in the educational unit "The Biosphere and the Pedosphere"

No.	Educational unit	Grade	Teaching-learning methods	Average mark
1	The Biosphere and the Pedosphere	5 A	modern	7.80
2	The Biosphere and the Pedosphere	5 B	mixed	8.00
3	The Biosphere and the Pedosphere	5 C	traditional	6.80

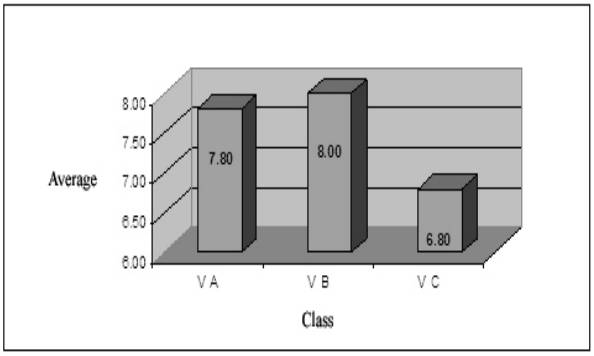

Fig. 2. Evaluation results for the educational unit "The Biosphere and the Pedosphere"

Table 5. Results obtained by the students at the summative evaluation test applied for the evaluation of the specific competencies and contents in the educational unit "The Geography of the Population and of the Human Settlements"

No.	Educational unit	Grade	Teaching-learning methods	Average mark
1	The Geography of the Population and of the Human Settlements	5 A	modern	7.30
2	The Geography of the Population and of the Human Settlements	5 B	mixed	7.40
3	The Geography of the Population and of the Human Settlements	5 C	traditional	8.80

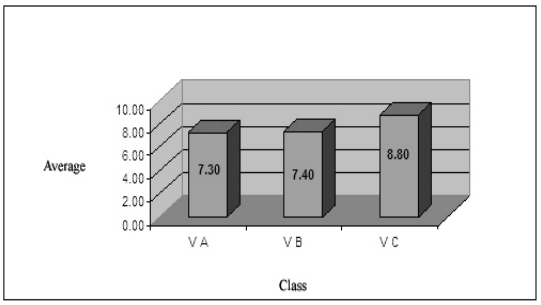

Fig. 3. Evaluation results for the educational unit "The Geography of the Population and of the Human Settlements"

In order to highlight the results obtained by the students through the use of different teaching-learning methods during the three educational units, the authors compared the results obtained by the same group at the three evaluation tests (Tables 6-8 and Figures 4-6).

Table 6. Results obtained by the students of grade 5 A at the three evaluation tests

Grade	"The Hydrosphere" - traditional methods	"The Biosphere and the Pedosphere" - modern methods	"The Geography of the Population and of the Human Settlements" - mixed methods
5 A	6.30 (six 30%)	7.80 (seven 80%)	7.30 (seven 30%)

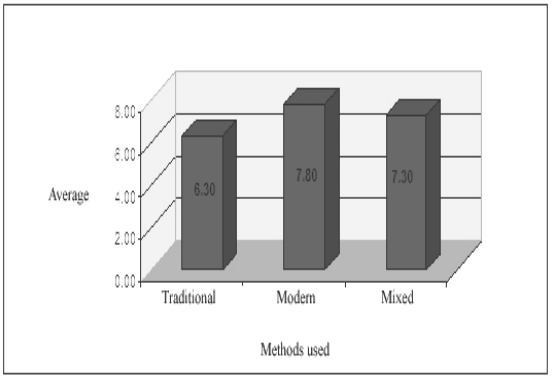

Fig. 4. Results obtained by the students of grade 5A at the three evaluation tests

Table 7. Results obtained by the students of grade 5 B at the three evaluation tests

Grade	"The Hydrosphere" - modern methods	"The Biosphere and the Pedosphere" - mixed methods	"The Geography of the Population and of the Human Settlements" - traditional methods
5 B	8.40 (eight 40%)	8.00 (eight 00%)	7.40 (seven 40%)

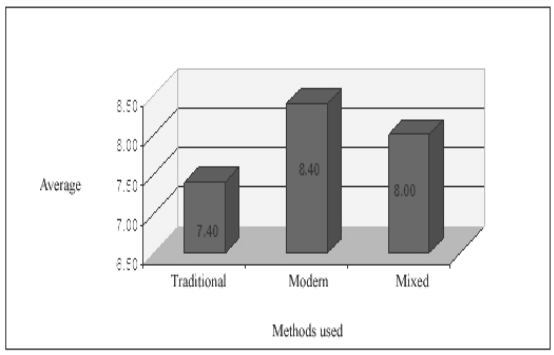

Fig. 5. Results obtained by the students of grade 5B at the three evaluation tests

Table 8. Results obtained by the students of grade 5 C at the three evaluation tests

Grade	"The Hydrosphere" - mixed methods	"The Biosphere and the Pedosphere" - traditional methods	"The Geography of the Population and of the Human Settlements" - modern methods
5 C	7.25 (seven 25%)	6.80 (six 80%)	8.80 (opt 80%)

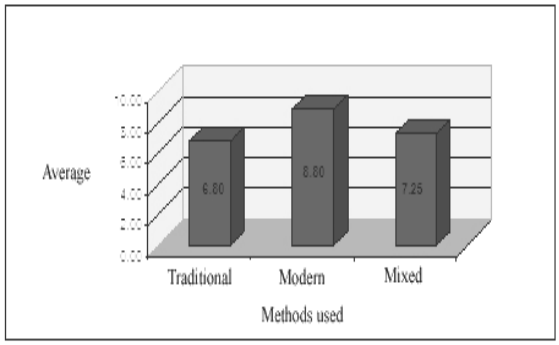

Fig. 6. Results obtained by the students of grade 5C at the three evaluation tests

One can notice that each group obtained better results at the test applied following the interactive learning, in which the work methods and techniques were predominantly modern. For a better analysis, the authors realized a comparative graph, highlighting the results of the three classes at each test (Figure 7).

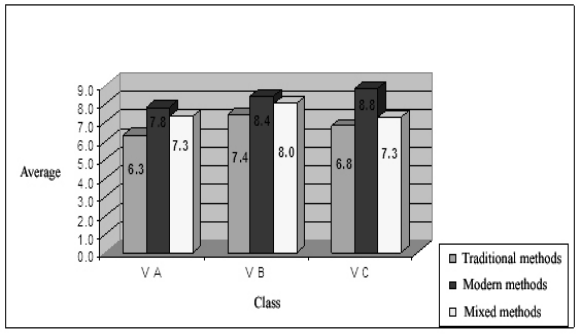

Fig. 7. Comparative results, according to classes and teaching-learning methods used

CONCLUSIONS AND DISCUSSIONS

The analysis of the results of the initial and the final evaluation test brought to light the following aspects:

- at the initial test, the experimental sample (86 students) obtained similar general average marks, which means that the experiment started from a similar level of knowledge, and work habits and skills in the approach carried out;
- at the tests on educational units, the average marks obtained by the three classes were higher than those of the initial test, yet different from one test to the next, depending on the strategies used, namely:

• grade 5 A obtained the average mark 6.12 at the initial test, the average mark 6.30 at the test applied after the dominant use of traditional teaching-learning methods, the average mark 7.30 at the test applied following the combined use of traditional and alternative methods and the average mark 7.80 at the test applied at the educational unit in which modern interactive methods were dominantly used. This proves that the use of the traditional teaching-learning-evaluation methods for geographic contents did not prove fully efficient, the pupils having general notions, yet not the capacity to apply them in different learning contexts;

• grade 5 B obtained the average mark 6.25 at the initial test, the average mark 7.40 at the test applied following the dominant use of traditional teaching-learning methods, the average mark 8.00 at the test applied after the combined use of traditional and alternative methods and the average mark 8.40 at the test applied at the educational unit during which modern, interactive methods were mainly used, this aspect demonstrating the efficiency of the alternative methods, the fact that the students are encouraged to discover the information they need, to use it in different learning contexts, to use the knowledge acquired also in informal/non-formal environments or to use their capacity of analysis and synthesis;

• grade 5 C obtained the average mark 6.40 at the initial test, the average mark 6.80 at the test applied following the dominant use of traditional teaching-learning methods, the average mark 7.25 at the test applied after the combined use of traditional and alternative methods and the average mark 8.80 at the test applied at the educational unit during which mainly modern interactive methods were used. The much better results recorded for the educational unit that used interactive methods demonstrates that they can compensate for the shortcomings of the traditional methods, while their combined use may lead to the obtaining of good results.

The main aim of this experiment was to check the hypotheses delineated at the beginning of our research, namely that the students' involvement in the teaching-learning process determines the obtaining of clearly higher performances than in the case of the use of traditional methods and of the presentation of the information by the teacher, and also that by giving an active character to the traditional teaching-learning methods the teacher contributes to the improvement of the performances obtained by the students and to the increase of their motivation for learning.

At the same time, one of the beneficial ways of favoring learning is to get the students involved in the teaching-learning process, to guide them for them to discover the information they need, while searching for solutions to a given problem, while analyzing the causes and effects of certain geographic phenomena and processes, while improving their knowledge by using previous information acquired by the students in the formal, non-formal and informal environment. This can be achieved by highlighting the interactive teaching strategies through which the students may contribute to their own learning, acquiring knowledge both through their own effort and by using the experience of the other participants. So, the students are faced with a problem launched by the teacher, and, individually or in groups, guided by the teacher, they try, by using the knowledge they have, to solve the task proposed, to find the right solution from a series of given solutions, to formulate their own viewpoints, to ask others and to ask themselves questions in order to facilitate the exchange of ideas between student and teacher and among the students.

To conclude, one can appreciate that, by comparing the results obtained by the students of the three classes, the authors' hypotheses were demonstrated, namely that the interactive teaching strategies contribute to the improvement of the quality of the teaching-learning-evaluation process, having an active participative character and a genuine vigorous shaping value for the student's personality.

REFERENCES

Cerghit, I. (1997). Metode de învăţământ (Teaching Methods). Bucureşti: Didactică şi Pedagogică.

Cerghit, I. (2002). Sisteme de instruire alternative şi complementare. Structuri, stiluri şi strategii (Alternative and Complementary Teaching Systems. Structures, Styles and Strategies). Bucureşti: Aramis.

Cerghit, I. (2006). Metode de învăţământ (Teaching Methods). Iaşi: Polirom.

Dulamă, M. E. (2002). Modele, strategii şi tehnici activizante. Teorie şi practică (Activating Models, Strategies and Techniques. Theory and Practice). Cluj-Napoca: Clusium.

Oprea, C. L. (2006). Strategii didactice interactive (Interactive Teaching Strategies). Bucureşti: Didactică şi Pedagogică.

Pânişoară, I. O. (2008). Comunicarea eficientă (Efficient Communication), ed. a III-a revăzută şi adăugită. Iaşi: Polirom.

Pehoiu, G. (2012). Geografia. Considerente didactico-aplicative (Geography Teaching. Theoretical-Applicative Considerations), ediţia a II-a, revăzută şi adăugită. Târgovişte: Bibliotheca.

Sălăvăstru, D. (2009). Psihologia învăţării. Teorii şi aplicaţii educaţionale (The Psychology of Learning. Educational Theories and Applications). Iaşi: Polirom.