

THE APPROACH OF LEARNING STYLES IN DIDACTIC ACTIVITY

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Abstract: *This paper presents the results of a research initiated in the period 2014-2015 at a rural school in Constanta, Romania. The research pursued achievement an investigation on the correlation between learning styles and academic performance of students. The research revealed the following: the student acquires information, interacts with the colleagues and the teachers, participates actively in solving of the various learning tasks, if used two or all learning styles. The teacher, as an educational advisor, has an important role in identifying educational experiences to optimize students' learning opportunities. The small group of subjects is an evident shortcoming of this research, but we intend to extend it to a larger number of subjects, from a greater number of schools, both rural and urban areas.*

Key words: *learning style, psycho-pedagogical counselling, school performance.*

1. Introduction

The issue of learning style attracted the interest of theoreticians and practitioners not only in the field of education. Learning style is “the preferred and specific modality a person to receive/assimilate, to process/assimilate, to store and to update some information contents” (Dumitru, 2008, p. 184). Learning styles are defined as “personal dispositions that influence student's ability to acquire information, interact with peers and teachers and participate in learning experiences” (Grasha, 2002, p.126).

The learning style is an important indicator of the school success, of the optimum utilization the intellectual potential of the student. Learning style is expressed in the preference of person for a particular way of learning (Woolfolk, 1995).

The researches on learning issues revealed that students learn in different ways, developing different learning styles. Linksman (1999, p. 23) classified the learning styles: *visual style, auditory style, tactile style, kinesthetic style.*

The preference for a particular way to learn, to receive and use some informational contents, has some genetic determination, but largely, is acquired in ontogenesis, through learning. Learning styles can identified through reflection on their own learning experiences, but also through specific psychological tests.

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2. Objectives

This paper presents the results of a research initiated in the period 2014-2015, at a rural school in Constanta, Romania. The group of subjects included 19 students (12 boys and 7 girls) with age between 8 years and 10 months and 10 years and 5 months.

The research pursued achievement an investigation on the correlation between learning styles and academic performance of students. In this regard, we had established the following research objectives:

- a) the identifying of learning styles of the students;
- b) the selection and the application of optimization methods of learning styles;
- c) the recording of the students' progress at the Mathematics and Romanian Language and Literature.

3. Methods

The research methods used: questionnaire; knowledge test; pedagogical experiment. The questionnaire was used to determine the learning style - we used two questionnaires: a personal questionnaire with four questions and a questionnaire with 39 questions. The knowledge test was used to distinguish academic progress at the Romanian Language and Literature and Mathematics. The pedagogical experiment was applied to the one group of subjects; the variables of the experiment:

- a) the independent variable - psycho-pedagogical activities carried out under the optional discipline "Counselling and guidance", the learning unit "the information's management and the learning";
- b) the dependent variable - increasing academic performances in Mathematics and Language and Literature Romanian by optimizing learning styles.

4. Results

The research began with the identification of the subject's dominant learning styles. In this regard, we applied a questionnaire consists of four questions:

1. When I learn, I like to:
 - a) *talk and listen*;
 - b) *see illustrations, sketches, images*;
 - c) *touch the objects*.
2. I learn more easily when:
 - a) *I hear explanations of the teacher*;
 - b) *I see the written text*;
 - c) *I can experience learning situations*.
3. When I learn to feel the need to:
 - a) *verbalize the learning material*;
 - b) *reread or rewrite the material learned*;
 - c) *gesticulate*.
4. I prefer to learn using:
 - a) *audio cassettes*;
 - b) *books, films*
 - c) *role-playing, physical games, sports, experiments*.

There were high scores for visual style (41.5% - 9 students) and auditory style (36.8% - 7 students). The tactile-kinesthetic style obtained a small score (15.7% - 3 students) (see Fig. 1).



Fig. 1. *Centralizing learning style, questionnaire 1*

Identifying the personal style of learning subject group represented a milestone in the design of psycho-pedagogical activities on effective learning and development. They followed the optimal use of personal learning style in learning achievement.

In the next stage, of the formative experiment, the students exercised different learning styles, depending on the specific educational activities. The subjects understood the value of knowing your own learning style, but also the need to approach it as required. In this regard, a formative role had the activities of psycho-pedagogical counseling, developed in the optional discipline “Counselling and guidance”, the learning unit “The management of the information and the learning” (M.E.C., 2006).

This fixed the following issues (Lemeni, & Porumb, 2011, pp. 21-34):

- assessing the search skills and use of information and identifying how the information is exposed of the distortion;
- elaboration for search of information for a project\minidatabase, identification and use of multiple sources of information on a given topic and develop skills for assessing the credibility of information sources;
- identifying specific learning methods different types of subjects;
- awareness of how leisure time is used and the skill to achieve a work schedule of personal activities;
- identification of students' dominant learning style, but and strategies used in learning styles;
- awareness of the factors that motivate learning style.

Through these activities, we chased optimization of the learning style of each student and, implicitly, the increase of the academic performance at the Mathematics and Romanian Language and Literature. It found that students who know how to learn effectively (quick and easy) are capable of a *self-management of learning* (Dumitru, 2008). The students have become aware of the qualities, gaps and learning needs. The approach a rigorous program by learning led to obtain better school results and raise confidence in their own learning opportunities.

The post-experimental stage presented on the students' progress at Romanian Language and Literature and Mathematics. The final evaluation of school performances showed a growth of

these determined by the improving of personal learning style and the combined approach of learning styles in solving problems. The use of knowledge tests offers an overview of the knowledge, skills, abilities on oral and written expression, mathematical calculation.

Below are the scores from the initial and final evaluation of Romanian Language and Literature and Mathematics.

Initial evaluation a performance of students at *Romanian Language and Literature* conducted to the following classification of students (see Fig. 2):

- I. 31.5% (7 students) - high and very high level (90-100 points)
- II. 52.6% (10 students) - average performance level (75-89 points)
- III. 10.5% (2 students) – satisfactory level (45-74 points)

Final evaluation a performance of students at *Romanian Language and Literature* changed the initial classification (see Fig. 2):

- I. 47.3% (9 students) - high and very high level (90-100 points)
- II. 42.1% (8 students) - average performance level (75-89 points)
- III. 10.5% (2 students) - satisfactory level (45-74 points)

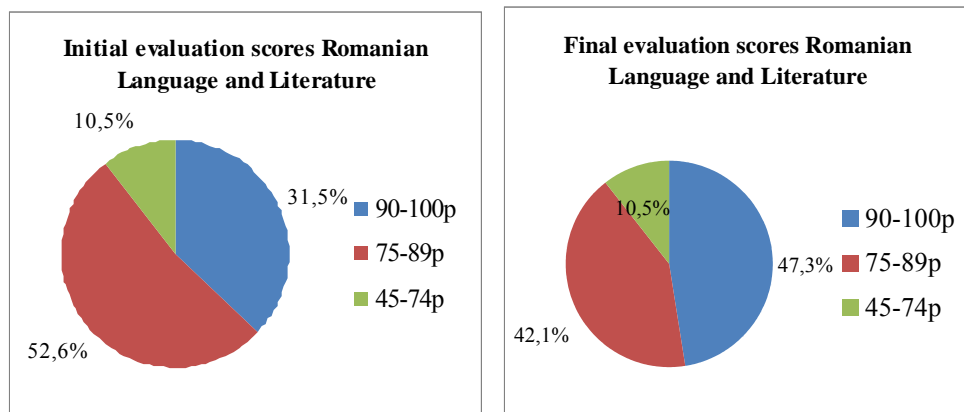


Fig. 2. *Initial and final evaluation scores Romanian Language and Literature*

It showed an increase in the number of students with good and very good results. Some students with average performances at initial evaluation obtained very good results following expanded use personal learning style in solving tasks. The results from the two assessments did not show significant differences. At the final evaluation has increased the number of students who a score very good in Romanian Language and Literature. Unfortunately, it has been a setback to one of the students with a precarious family status. He was the subject of a specific psycho-educational intervention.

Initial evaluation a performance of students in *Mathematics* conducted to the following classification of students (see figure 3):

- I. 57% (11 students) - high and very high level (90-100p)
- II. 36,8% (7 students) - average performance level (75-89p)
- III. 5% (1 student) – satisfactory level (45-74p)

Final evaluation a performance of students in *Mathematics* changed the initial classification. Thus, it highlights (see Fig. 3):

- I. 63.1% (12 students) - high and very high level (90-100 points)
- II. 26.3% (5 students) - average performance level (75-89 points)

III. 10.5% (2 students) – satisfactory level (45-74 points)

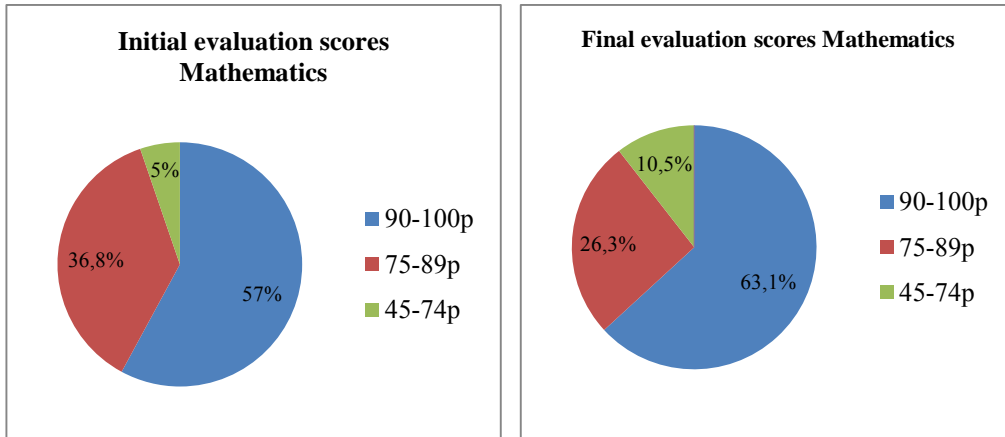


Fig. 3. *Initial and final evaluation scores Mathematics*

The academic progress of students is obvious. We see an increase number of students with good and very good results. This reality was determined from the improvement of personal learning style of students and the combined approach of learning styles in solving problems. At the final evaluation has increased the number of students who a score very good in Mathematics. Unfortunately, it has been a setback to one of the students with a precarious family status. He had benefited from specific psycho-educational intervention.

Learning Style Questionnaire (<http://www.slideshare.net/econsiliere/chestionar-referitor-la-stiluri-de-invatare-phare>) was applied in the final stage of research (April, 2015). The second questionnaire is more elaborate than the first questionnaire. It highlighted the dominant style of learning students and students with learning style combined.

It were recorded the following data (see Fig. 4):

I. visual style (V): 6 students (31.5%)

II. auditory style (A): 4 students (21%)

III. tactile-kinesthetic style (T-K): 2 students (10,5%)

IV. combined style: 7 students (32%), din care A + T-K: 4 (21%); V+A: 2 (10.5%);

V+T-K: 1 (5.2%)

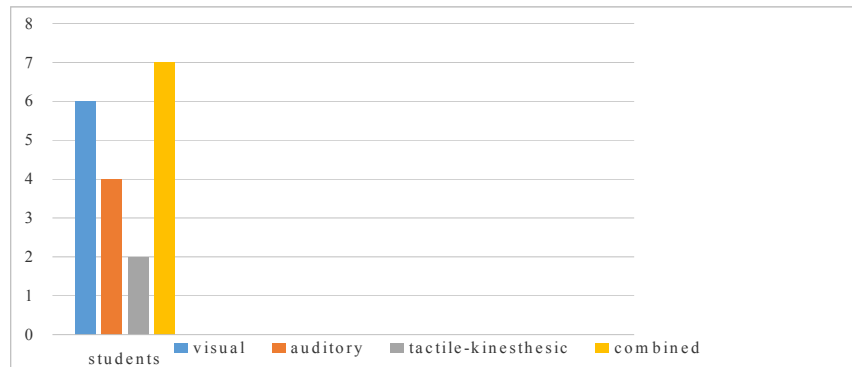


Fig. 4. *Centralizing learning style, questionnaire 2*

The data of the second questionnaire reveal the progress of students in Romanian Language and Literature and Mathematics, especially for students who use the best two or all learning styles in achievement of tasks. The conscious use of two or all learning styles in approaching learning experiences leads to effective student learning.

5. Conclusions

The research revealed the following: the student gets high performers in learning, acquires information, interacts with the colleagues and the teachers, participates actively in solving of the various learning tasks if used two or all learning styles. The teacher, as an educational advisor, has an important role in identifying educational experiences to optimize students' learning opportunities. Also, must be a correlation between the teaching methods and learning styles used by students, to increase students' performances and avoid school failure.

The small group of subjects is an evident shortcoming of this research. We intend to extend it to a larger number of subjects, from a greater number of schools, both rural and urban.

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