

## SOCIAL LEARNING AND THE STUDY OF QUADRILATERALS

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**Abstract:** *Starting on the motto: "Teaching others makes them richer, yet without you becoming pourer..." (indian saying) and not losing from sight the idea that social studying presumes the adaptation of the educational act to the limits and possibilities of the pupil in general, and conveys to the style and rhythm of studying of the pupil, to the interests to each abilities. This creates a way of drawing children closer to school, especially building more interest towards mathematics.*

*In the world of information explosion, by treating the pupil in a differentiated way, one can create the motivation of learning by increasing school satisfaction.*

*Social learning, through its particular forms of organization, ensures an increased efficiency of social training, in order to allow students or pupils to select, organize and transform the stimuli that act upon them, thus making it possible to leap from training to self-training and from self-education to education.*

**Keywords:** *social studying, modeling, education, efficiency, quadrilater, convex.*

### 1. INTRODUCTION

In the development of education sciences, model-reality analogies are research strategies of great importance, often necessary to know the phenomena and processes manifested in the educational environment and implicitly the didactic act, offering a field of validation, improvement or restructuring of various learning methods.

Interactive training strategies that harness group and microgroup relationships as permanent resources for learning, training and social education take place at this level.

An example in this sense is the modeling method based on analogical reasoning that capitalizes on the pedagogical resources of the training. Thus, certain complex behaviors formed in the training act can only be produced using modeling.

*Modeling*, in simple terms, is a process of knowledge based on a tool with special features, called model. In turn, the model represents an object that has the typical attributes of a category, intended to be reproduced. At the same time, a model can be a simplified representation of a process or system. [9, 10, 11, 12, 13]

The model of social training rejects some alternative concepts that consider the individual as a passive expression of unconscious impulses generated by the past or spontaneous reactions to environmental events.

On the other hand, the *model of social training* is delineated by the models promoted by the theories of personality and education that emphasize the importance of internal factors up to the exclusion of the role of the environment. These theories are rejected because they ignore the social responses of the educated person in various contextual situations as well as the determinant formative resources of quality education designed in the perspective of lifelong learning.

Similarly, the *model of social training* is delimited by theories that emphasize the role of external factors to the exclusion of internal factors. These theories do not have the capacity to capitalize on the cognitive functions of human behavior that constitute the educational psychological resources of education. [14, 15, 16]

The model of social training therefore rejects any excess or unilateral vision in addressing the personality of the educated person, and in conceiving the education as a postulated quality education. The social theory of learning highlights the fact that behavior can be explained only in terms of interaction between the person and the environment. This process is defined by Albert Bandura through the concept of mutual determinism, a concept that we can interpret from a pedagogical point of view as an open relationship between the educated and the entire educational environment. Those who learn are influenced by environmental forces, but at the same time have the freedom to choose how to act on a cognitive, affective, motivational, volitional and characteristic plan. At the same time, he actively and proactively builds cognitive and noncognitive solutions for various situations. [9, 10, 11, 12, 13]

The social theory of learning underlying the psychological model of social training implies specific notes and characteristics:

- to highlight the role of the educated as an epistemic subject (Piaget), respectively as an agent (Bandura);
- overstressing the social origins of behavior as effective training resources;
- revealing the importance of cognitive processes in the development and functioning of personality in complex, diversified and differentiated social contexts;
- emphasizing the importance of the systematic research activity of the social personality, the social environment and the relations between the internal individual resources and the external environmental social conditions (natural, economic, family, cultural, political, community);
- promoting at the level of learning complex behavioral models that act in the present, but also in the absence of explicit or implicit reinforcements.[3, 10]

## **2. ANALYSIS OF THE SOCIAL TRAINING MODEL**

Consequently, the social training model will take into account the general paradigm level and the specific level of some paradigms. Thus, on a general level, the structure of the model generated by general didactics (training theory and methodology) will be considered. At a specific level, the social training model will refer to the social theory of learning as the psychological paradigm of learning with which pedagogy enters into interdisciplinary relationships.

### **A. At the level of general didactics (Theory and Methodology of Training)**

At the level of general didactics the design of the pedagogical model has the following levels:

1. Basic structure
2. Organization structure including organizational forms
3. Planning structure
4. Structure of achievement

#### **1. Basic structure**

The teacher-student correlation is the central element of this level. This correlation is achieved at the formal level - the class of students, by groups and individually - and is objectively ensured by the permanent multidimensional exchanges that must exist between teacher and student.

The teacher is responsible for ensuring this correlation from the perspective of social training; He specializes in making these correlations as a specialized professor of social education, specialized in education through various subjects (mathematics, language, drawing, history, physics).

From the perspective of social learning at the basic structure of the general didactic model, the professional model generated, maintained, promoted, and imposed by the teacher becomes achievable. At the level of the general professional conduct, the professional model provided by the teacher ensures the possibility of extracting by the students specific follow-ups regarding the general professional attitude, the impact of the competences on accomplishing immediate personal goals, the types of persuasion, the transmission of messages, the reasoning, energizing and affective-emotional engagement.

The student is the beneficiary of this correlation that contributes to the formation and development of social skills and his / her personality towards social integration. It integrates the element of the teacher's professional model through observer learning, learning determined by the social aspect of the relationship between him and the teacher. In this perspective in experimental learning, the behavioral, cognitive and non-cognitive model proposed by the teacher becomes extremely important.

The conversion of the teacher from the professional didactic to the professional model is achievable by understanding, internalizing, and capitalizing on the concept of mutual determinism, which means that both students and the educational environment are determinant factors that influence each other. In this context, effective learning is determined by the quality of social interaction between the teacher, student and the educational environment. The student is influenced by the forces of the educational environment, the social relationship with the teacher, but at the same time it has the freedom to choose how to act on cognitive, affective, motivational, volitional and characteristic plan. He responds to different situations in the educational environment, but at the same time, he reactivates, actively and proactively, his own cognitive and non-cognitive solutions for various situations with professional openness, in this case.

## **2. Organization structure including organizational forms**

The organizational structure supports and is determined by the basic structure. It involves the proper organization by each teacher of the resources he has at his disposal:

- information (plan, programs, manuals, auxiliaries);
- human (teachers and pupils with their individual and social qualities and defects. Here are other factors of education directly or indirectly involved: auxiliary staff, parents, representatives of the local community);
- didactic-material: the time and space during which the training takes place in the school and outside the school.

The whole layout of the organizational structure from the perspective of the social training model is strongly socially imprinted. In this way the importance of the systematic research activity of the social personality, the social environment and the relations between the internal individual resources and the external social environment conditions (natural, economic, family, cultural, political, community etc.) is taken into account.

### **Forms of organization**

#### **a) General Forms:**

- formal training (lesson, university course, etc.)
- Non-formal training (specialized circles, individual study, consultations, technical research circles, training courses and personal development, etc.)

The model of social training has in mind formal training to identify and promote socially desirable social models while, through non-formal learning, the models are diversified, emphasizing the role of the educated person as an epistemic subject (Piaget) or act agent (Bandura);

In this new hypothesis the training takes place in the absence of explicit or implicit reinforcements, being determined by the informative and formative functions of the models.

b) Particular forms:

- front-class training with the class of students
- group training (within or outside the school curriculum)
- individually (within the class or outside of the school curriculum).

Typical concrete forms are the lesson for pre-university education and university education for higher education. Particular forms of organization provide increased efficiency of social training to enable students to select, organize and transform stimuli that act upon them, thus influencing their own behavior. Through these self-generated influences, cultivated by the model of social training, the leap from training to self-training, from education to self-education is ensured.

### **3. Planning structure**

The planning structure takes into account the following objectives: the value guidelines proposed by the teachers (at the level of the lesson or the authors of the curriculum at the general and specific level).

**a.** The basic contents of the social training model include science, arts, technology, skills, problem-solving strategies, social learning in curricula at the educational disciplines level.

From this perspective, we are able to make a few judgments about the shortcomings of the learning unit called the quadrilaterals found in the 7th grade alternative textbooks:

- no manual contains the definition of the convex quadrilateral, the ways of recognizing it, although all the quadrants provided in the curriculum are convex and possess its angled property;

- in a single handbook of the three parallelogram definition, it follows that it is a convex quadrilateral;

- in the case of parallelogram and particular parallels, the properties are not specifically specified, much less exemplified on the drawing. These are given in the form of necessary and sufficient conditions, so there is no clear distinction between the necessary and sufficient properties and conditions;

- even in the definition of the trapeze does not appear any connection with the convex quadrilateral and in a single manual there is a detailed description of the elements of the trapezoid (bases, unparallel sides, height);

- in one of the textbooks there are not listed the properties of the isosceles trapezoid, and in the same manual there is no mention of the axes and the centers of symmetry of the quadrilaterals.

**b.** Teaching methods are the ways of action proposed by the teacher in class or outside the class for the effective realization of social training: conversation, demonstration, discovery discovery, lectures, exercise, programmed instruction, didactic play, etc.

**c.** The development strategy respects the requirements of the general model in the training theory and methodology:

- strategy of initial evaluation with diagnostic and predictive function;
- strategy of continuous evaluation, with formative function;
- the final evaluation strategy with a cumulative summative function.

#### 4. Structure of achievement

The implementation structure is aimed at implementing three-step planning:

a. Teaching: or the pedagogical communication of the didactic message by the teacher (it is designed according to the didactic principles, it includes the selection of some information that will lead to the correct formation and development of the pupil). It must be done at the level of understanding, motivation and affectivity of the student.

b. Learning is the pupil's action based on surrender. It assumes several stages of reception, internalization and capitalization of the message (active reception, passive, affective, cognitive, motivational internalization, short, medium, long, discipline applicability, intra, inter, pluri and transdipinar, reproductive applicability or creative).

c. Assessment is conducted by the teacher through various methods (classical - based on oral, written or practical evidence) or alternatives (based on observation, self-evaluation, investigation, project, portfolio); It aims at verifying the degree to which the objectives of the social training activity transposed at the level of learning-teaching actions are met.

From the alternative methods, I chose the Method of String, and Venn Diagram

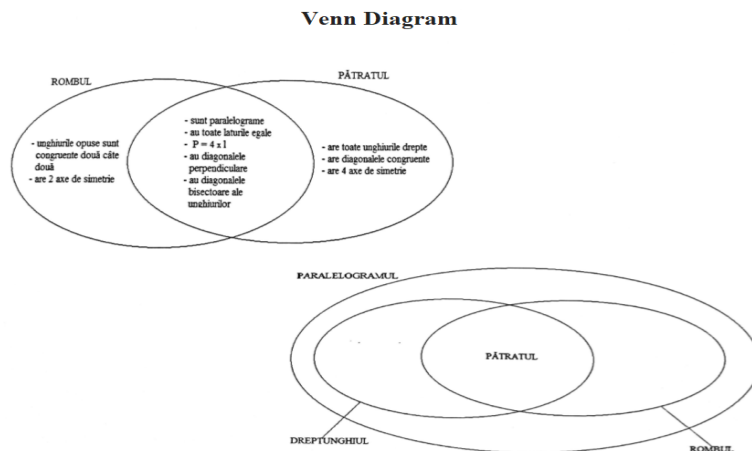
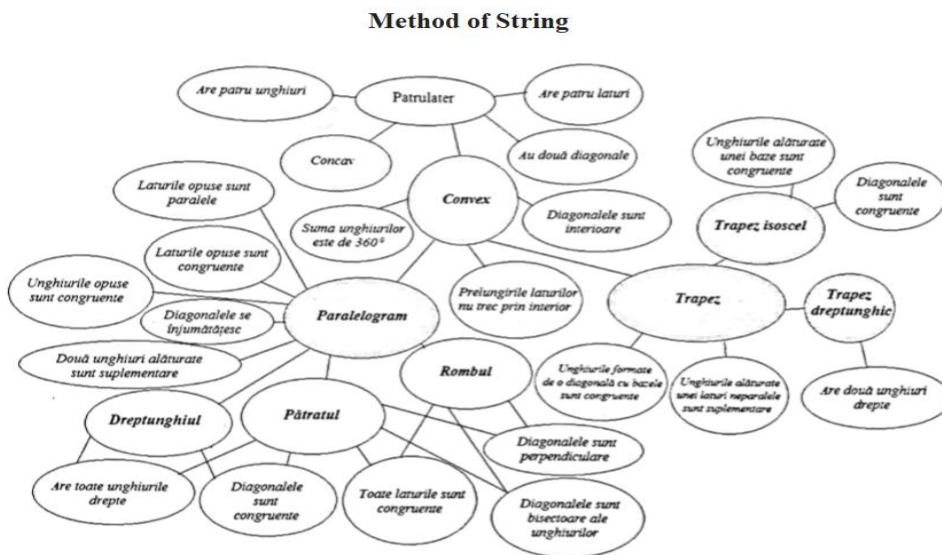


FIG.1 Analysis of the social training model at the level of the curriculum paradigm

The paradigm of the curriculum tries to solve the conflict between the two paradigms of modern pedagogy, launched at the border between the 19th and the 20th century, which are currently facing.

The paradigm of psychological or psycho-centered pedagogy is centered on the psychological requirements of the educated person.

The paradigm of sociological or sociocentric pedagogy is centered on the demands of society towards education or the educated person (economic, political, cultural, community, etc.).

The paradigm of the curriculum as the paradigm of post-modern pedagogy (the second half of the 20th century) attempts to solve the conflict between the two modern pedagogues, emphasizing the ends of education (the ideal, aims and objectives of education-training) built on the interdependence of the psychological requirements the paradigm of psychological pedagogy) and the demands of society (emphasized by the sociocentric paradigm).

The model of social education, developed in the curriculum paradigm, contains certain requirements. Psychological requirements are expressed through competencies and capabilities, and social requirements are expressed through basic content recognized by society (from the curriculum).

1. Basic structure of social training: emphasizes the permanent reconstruction of teacher-pupil correlation required in pedagogical and social context. Both the teacher and the pupil have the task of communicating the changes in an open context and of rebuilding the relationship between them actively, influencing the educational environment and being influenced by it permanently.

2. Structure of organizing pedagogical resources in different forms:

a. ensuring the individualization of social training in any imposed form of organization (classes with 35 pupils) or chosen by the teacher (group organization) to achieve the objectives of social training.

b. Individualisation of social training - making the most of each pupil's resources (cognitive, non-cognitive, social related to the social, family, and social learning capacity, and previous school results).

c. ways to achieve the individualization of social training - knowing the pupil; graduation of concrete objectives; diversity of methods; optimal blending of training.

3. The structure of social training planning

It involves focusing on objectives and basic content specific to social learning, concordance between all components of planning, strategy of continuous formative evaluation with the aim of regulation and self-regulation of activity.

4. The structure of what has been planned

It is done in an open social and educational context. It requires development and development in relation to the responses to the open social and educational context. There is a permanent interdependence between the three actions: teaching-learning-continuous assessment (the continuous evaluation strategy is based on the combination of classical and alternative methods, resulting from the social learning model based on social learning theory).

### **3. THE MODEL OF SOCIAL TRAINING**

1. Basic structure: the correlation between the educated person and the teacher-student relationship is achieved through mutual determinism in the open educational and social environment, favorable to observational and experimental learning.

2. Organizational structure: It is operational through general, nonformal, private social learning forms at group level, based on observation, experimental research, identification of qualitative models through available resources (information, formative, human).

3. Planning structure:

It aims at achieving the social objectives of social training:

- training of social skills;
- training of identifying and recognizing social desirability models;
- training and exercising observer learning skills;
- stimulating critical, selective, heuristic, non-linear and analytical thinking needed to evaluate critical models and critical experiences;
- methods used: direct experiment, observation, hypostasis or role play, case analysis, etc.

4. Structure:

Applicability through social verbal learning, teaching at the level of effective social communication on school group, microgroup, additional social learning, assessment of the effects of initial and ongoing evaluation.

**The model of social training operates with the following concepts:**

1. Training is the pupil's training / development activity, based on the permanent correlation between the teacher and the student according to the objectives of the teaching process through teaching / evaluation.

2. Learning is interpreted pedagogically as an action subordinated to teaching activity along with teaching and evaluation. It does not have its own objectives, which are taken from the objectives of the training or the educational process. Instead, he has his own motivation, which consists in acquiring knowledge, skills and attitudes.

3. The psychological model of training is achieved through the pedagogical interpretation of A. Bandura's social theory of learning. Psychologically, learning is a psychological activity with the purpose of adaptive finality. At pedagogical level, learning is subordinated to the training activity.

#### 4. CONCLUSIONS

1. To believe in giving up new ideas for a return to traditional mathematics is to show total ignorance (not allowed for those who embrace such an opinion). On the contrary, we believe that there is not one true mathematician who admits that the present state of his knowledge is a definite one. (Andre Revuz, Ed. Didactics and Pedagogy, 1970).

2. The model of social education centered on social learning addresses training in terms of mutual, continuous, uninterrupted interaction between cognitive, behavioral and environmental determinants. This is the psychosocial foundation of education with openness to self-education.

3. Student-centered active and interactive methods and techniques contribute to the development of critical thinking, actively involve learners in learning, putting them in the position of making logical connections and transforming traditional activity into a lifetime of easy passage to the car -training and self-education.

4. The model of social training aims to explain the students' behavior and understanding from the perspective of the need for social efficiency, treated as a potential pedagogical resource. The students' potential to influence their own behavior in the most general sense marks the lines of a pedagogical process of self-development - self-development circumscribed to the concept of mutual determinism launched and imposed by Bandura.

5. The social training model emphasizes the development of cognitive competences, expectations, goals, standards, self-esteem, and self-regulating functions, both through observational learning and through direct experience. Achieving goals through learning from personal experiences in the educational environment and from the models promoted through this environment determines a strong intrinsic motivation for learning and social success.

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