

Educational Models. Triad for successful learning of Social Sciences

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ABSTRACT

This article stems from the perceived need and given expressions of teachers who participated in an investigation of the *Performance of teachers in the area of Social Sciences in secondary education*. The research was conducted through case studies in six secondary schools in Managua. Concluding that teachers need to appropriate of a didactic teaching model that permits them facilitate dynamic, motivating, and meaningful teaching and learning processes. This proposal is based on the fact that no model is better than other, which is why the eclectic application of the academicist, cognitive, and sociocritic model. These three models or paradigmatic approaches are developed with the intention that the teacher appropriates them and implement them in his/her classrooms.

INTRODUCTION

To start off this article, it refers to the meaning of the term -education- and in this scope is stated what education and what kind of teachers our country needs, especially in the area of social sciences, which is one of the areas of knowledge, that in the learning processes, everyday faces a number of challenges that need to be addressed. This will not be solved by magic; it is the social sciences teachers who are the responsible to solve the problems presented in the classrooms of the different subsystems.

Sarramona (1989) defines education as a planned or unplanned process that unexpectedly relates two or more humans and places them in a position of interchange and reciprocal influences. It is noteworthy that in this conceptualization made by the author, it prevails the idea of its perfection. It is considered that to achieve that perfection, the educator must have a true vocation, conviction and social commitment to the teaching profession. In his/her work he/she should facilitate real educational processes, promote learning situations that allow a change in the attitudes or behavior of the subject learning.

Escribano (2004) emphasizes that education is an eminently human process, because it presupposes the person unique capabilities, such as intelligence, good use of freedom, the ability to communicate and interact with him critically his/her self and with others. This author conceives education is an opportunity for the learner to develop a set of skills that are useful for life his life.

Sarramona and Escribano definitions complement each other, as both relate to the improvement of human beings, but to implement the latter; the practice of values is sine qua non. The practice of values is the fundamental tool for people to develop integrally. The school must provide a set of aptitudes, understood as a body of knowledge, skills and attitudes and values that enable them to learn permanently, to achieve their personal goals and develop their life projects. Cardona (2008, p.1-2) retakes some ideas and theoretical statements of Freire and defines that *education is a process, which implies to consider strategies and methods systematically in order to achieve the purposes set up; besides as a process it requires signify an unfinished product that is constantly changing and dynamism, subject to the necessary modifications to meet the social demands... Training, as Paul Freire would say is not mechanical activation of human abilities to achieve certain performance, it is rather a critical exercise, which empowers, liberates and leads to autonomy.*

According to the approaches discussed in the preceding paragraphs, with the eclectic and rational application of technicist or mechanistic, cognitive or constructivist and critical-reflective or autonomous educational models can be achieved the formation of citizenship through processes of teaching and learning of the contents of social sciences it is considered; either geography, history, economics, sociology, philosophy or the even civics. It is noteworthy that no model is better than another one. In this regard it is suggested each model to be applied with reflection, analysis, flexibility and a necessarily didactic purpose in order to respond with the purpose of satisfying the challenges of the Nicaraguan society.

MATERIAL AND METHOD

This scientific article is the result of a final thesis of a master to qualify to opt for PhD on Education and Intervention. The research is titled *The teaching of social sciences, impact on the performance of teachers in the area of social sciences in secondary education.*

Fifteen national and international experts on education and teaching of social sciences rigorously reviewed with a rubric with indicators, the data collection instruments of this research.

Once they sent their comments, we proceeded to incorporate the given suggestions. And once the instruments got also improved, we finally built up data collection instruments. Retrieved the final instruments, the survey was applied to 18 teachers of social sciences and to 94 secondary school students who had studied the subjects of social sciences in highschool.

Finally, the results of both instruments were processed in SPSS version 23 program, obtaining a degree of reliability of 0.47 of the survey on the teachers, on the other hand the survey on the students obtained a *confidence level of 0.70*. Which indicates, according to Hernandez Sampieri et al (2010) concerning to the interpretation of the different coefficients, that if it exceeds 0.75 in the level of reliability, it is then, acceptable. When applying Alpha of Cronbach to this instrument, the SPSS version 23, the program suggested to delete three items from the questionnaire on the students, only.

Similarly, it was designed as a research tool a guided observation for the subject of social sciences and a guide for focal group, both, for the secondary teachers and the students and both instruments were validated through piloting them. To do it, the researching teacher invited eight teachers of high school and applied them the tool to verify if the questions answered to the searching objectives and to validate the focal group guide for the students.

The researching teacher visited a secondary school and applied the tool to eight students in seventh, eighth and ninth grade to test the instrument. Then, he proceeded to type in the results of the focal group and it was proved if the questions were coherent, clear and pertinent, because students answered clearly. The same was done with the interviewing guide to the head teachers of social sciences of secondary education.

It is noteworthy that in this article the obtained results of the validation process of the instruments nor the results of the piloting guide of the focus group on the teachers and the students or the results of piloting the interview guide are not presented because this research has not been presented before the academic court yet. It is mention indeed, the validation process of the research instruments to justify the need to identify the teachers about the theoretical and practical appropriation of an educational model that allows them to teach social sciences in an active, participatory and innovative way.

DISCUSSION AND RESULTS

Curriculum models and learning of social sciences

Theoretical approaches will be related to conceptualizing education curriculum models that are the foundations or pillars on which educational processes are based on. It is assumed that the evolution of education has been governed by functional parameters ranging from traditional (cognitive) conductive curriculum models to the development of mediation of learning based on the skills developed by students in the search of self-realization and self-learning.

It is remarkable that the curricula have been transformed according to the positions and philosophical, psychological, pedagogical and epistemological currents that have evolved in societies in different historical moments.

These conceptual changes of thought have involved a paradigm shift and are embodied in the conceptual curriculum changes. It is noteworthy that when a paradigm shift occurs, all systems are opposed, as these tend to perpetuate their status and contradict change.

When a new approach or paradigm emerges, new perspectives are given and provide other responses in any social sense and especially the educational process. But all paradigms itself has flaws and fissures, that is why, it is not possible to adhere exclusively to one or another trend, then complementary positions are sought.

In this regard Alviárez, Moy Kwan y Carrillo (2009), highlight the three curricular models: the traditionalist, cognitive, constructive and the one based on practice and competences. Due to methodological reasons the first two will be developed, then the sociocritic curriculum model, which considers that is the current and applicable model to the teaching and learning of social content.

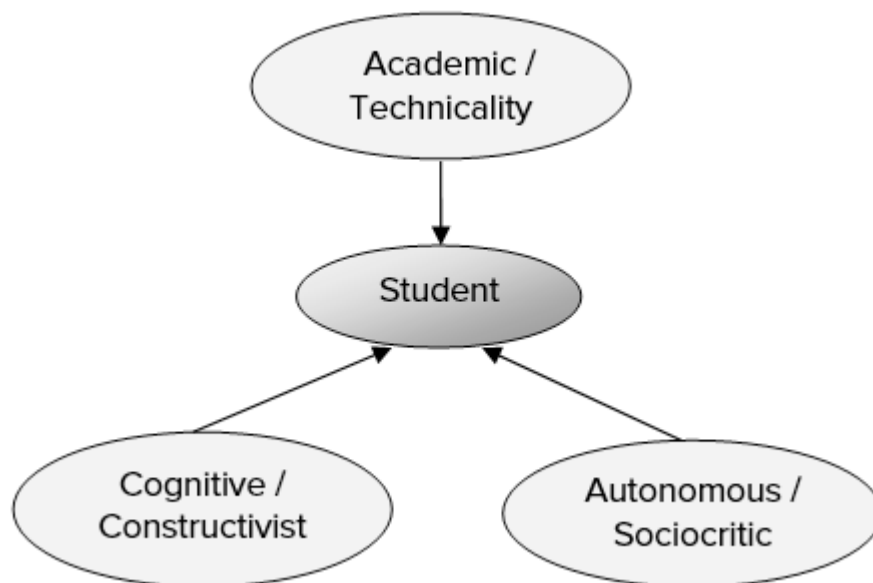


Figure 1: Educational Model Proposed¹

Traditional curricular, technicist or mechanistic

a. Historical context of the model

This model was first developed in the late XIX century. It had its highest peak in the mid XX century and it still influences even today, markedly. Here are some points raised by Cobo (2007, p. 10) on this model.

By mid XX century, the positivist view of science is strengthened. According to this view, reality is a set of events and the scientist have to measure and quantify them in order to establish cause and effect relations so they can be controlled.

The behaviorist psychological approach attempts to explain the human being as a body issuing responses to certain stimuli. Therefore, from this perspective, learning is about conditioning the person to react in the way that is considered adequate. The world of work at this time is characterized by series production (late XIX and early XX centuries) and the intensive application of mass production, in which engineers and entrepreneurs seeking to organize, distribute, and coordinate tasks to achieve the most efficient way to obtain their products at the lowest cost. In this context, education systems are strongly influenced by the behaviorist psychological current.

b. Model Features

Among the more traditional models, there is the behaviorist model, in which underlies the conception of behaviorism that considers the supposition that teaching is about providing only contents, and delivering information with an excessive detailed instructional arrangement, which must be acquired by the student. This is what Paulo Freire calls “bank education”, which sees the student as a “bank” to place the information that later can be retaken or accessed. In this curriculum, the contents are structured horizontally and vertically reflecting a mechanistic conception of learning and individualized teaching by repetition. Retaking approaches Alvarez,

1. Own elaboration of model proposed

Moy Kwan and Carrillo (2009) who express the behaviorist curriculum focuses on the establishment and control of instructional objectives and the acquisition of knowledge through observable behaviors, ie, it wants the use of technology in teaching with the purpose of shaping the technical and reproductive behavior as this only responds to environmental stimuli and the teacher is an executor of instructions and he has the responsibility to control the learning environment and optimize transmissionist teaching, this gives the student a passive character.

For Demuth (2004), the academic model is focused on conceptual content as ways of knowing. These are organized into subjects, being intended only their uncritical internalization. For this model, teaching is explains contents defining them correctly. In this model, the teacher is the one who speaks most of the time and the students simply listen and take notes for a later evaluation. Pagés (1994) calls it a technicist model curriculum. The goal this model represents represent for education is the transmission of traditional hegemonic values. It advocates a conservative view of the society based on the need to form “good citizens”, for this purpose it selects the best knowledges that better allow the meeting of these goals. It also opts for a teaching-learning model based on the verbal transmission of knowledge and the denial or minimization of the internal aspects of the learner and his ability to think and construct knowledge.

For Quiroz and Mesa (2011), the technical curriculum assumes the mission of needs of the emerging industrial state that required a curriculum for the majority. Schooling was oriented to produce a skilled workforce and to achieve the reproduction of society and its economy. In the technical curriculum communities and groups of teachers and students they are thought by the state in accordance with the expectations of disciplinary experts. From the perspective of teachers, what matters is not what should be taught, but how it should be done from the prescriptive state, to remain working in schools being subtle forms of control. Civic education from a technical curriculum is reduced to the instruction of the members of the sociocultural context, players of the dominant ideology, with a certain level of instructional preparation and development of skills for work, the ones they required for participation in economic development through productive and efficient performance in the factory and in the industry. For this conception, a “*good citizen*” is one who does good work in the factory. This type of curriculum is implemented by teachers, but not thought by teachers as professionals.

Constructivist Cognitive Model

According to Cobo (2007), this model appears with the advent of the so called knowledge society after half of the twentieth century. The ability to generate and use new knowledge becomes more important than the static knowledge. The new productive and labor relations and globalization require women and men able to learn to learn throughout life due to the following reasons (p 10):

- The technological, productive and labor context has changed. The contemporary world requires of women and men capable of constantly update and adapt flexibly to new demands.
- The political and social context has also changed. The formation of true citizens requires of the development of skills such as analytical reasoning and critical thinking, as well as values such as cooperation, respect and social skills such as empathy and assertiveness.
- In addition, the accelerated globalization of social, political and economic processes has brought us to two seemingly contradictory forces. On one hand, the cultural references become more

uniform by the expansion of the media. On the other hand, it re appears the concerns about social identities.

With regard to cognitive-constructivist models, Alviárez et al (2009) consider that these focus on the process of constructing meaning, understanding, knowledge and try to understand the principles of operation and organization, the levels of cognition and meaning giving rise to linguistic manifestations. This curricular model highlights the relevance of the content as researching processes and problem solving in which the teacher and students derive methods of creative thinking, transcending the simple accumulation of finished knowledge. In other words, it makes students to construct knowledge through meaningful learning, thus allowing develop their comprehension, analysis and research capacity and so rejecting a technician or encyclopedic curriculum.

The cognitive theory sets learning as a process of personal construction of meaning, in which the available information is assimilated by the learner to build a new knowledge. In this curricular model *“the student is an active organism that handles and processes physical stimuli and symbols to build his/her understanding of the world”* (Alviarez, Moy Kwan and Carrillo, 2009, p200). Therefore, knowledge is a personal construction, product not only of the learner, but also of cultural agents, key players in this process. From the perspective of constructivism, learning is understood as a self-monitored process when resolving conflicts through cognitive evident interior concrete experience, the elaborated speech and reflection. These theoretical approaches are based on the contributions of *the genetic psychology* of Jean Piaget and *the sociocultural theory* of Lev Vygotsky, *significant verbal theory* of David Ausubel, *the theory of multiple intelligences* of Howard Gardner’s, *the theory of discovery learning* by Jerome Bruner and *the theory of conceptual networks* of Joseph Novak.

Continually retaking the approaches of Alviarez et al (2009), from the constructivist perspective, learning focuses on student mental activity, in the construction of the developing processes promoted in education. From this perspective, the educational intervention consists to create appropriate conditions so that, as far as possible, the schemes of knowledge that builds the student are right and deep through practical experience, project development or flexibility in concrete learning situations. This curriculum design needs to instruct active, independent, thoughtful and responsible individuals for their own learning. Actions to be taken should promote these qualities through authentic performance tasks and issues involving jeopardize the reasoning, creativity, problem solving, making connections and transfer and the collaboration.

Regarding this pedagogical model, Patiño (2006) considers that this is a cognitive model based on how is the learning of that that learns, in the processes used by the learner to learn, capacities and skills needed to learn, also incorporating the development and improvement of emotional intelligence. This model considers the learner as the protagonist of the learning, and the learning as the modification of previous concepts when including new concepts to the ones the students already have, mediated by cognitive conflict. In addition, the socio-cognitive model aims to promote intrinsic motivation, focused on improving learner him/herself and in the sense of success or achievement of learning. More than knowing contents, in this model is essential to use the tools to learn, such as abilities and skills. Moreover, this author believes that this is a social or contextual model to promote learning in context, in the life scenery, of the practice and service, full

of permanent relationships and interactions, in which the enculturation benefits the development of higher functions, as contextualized culture can identify what skills and core values that we must develop in the future professionals of education.

In the socio-cognitive model, the learning potential as cognitive dimension is argued, and it is developed through the contextualized socialization as socio cultural dimension, in which the interactions among trainees, as participants in their learning and the scenario reinforces what they have learned and while creating motivation to contextualize what is learned. Patiño (2006, pp. 21-23) to concretize, this model has the following characteristics to be developed in practice. It is considered that they are linked and can be used in the teaching and learning of social sciences.

This model tries to integrate the agent of the learning and his/her cognitive and affective processes in learning scenario. Culture, both social and institutional, is reinforced in the curriculum, understood as cultural selection that integrates skills, values, contents and methods. The model of the teacher has a dual dimension, as mediator of learning and as a mediator of social culture. The curriculum will be necessarily open to new learning, educational realities and also flexible in order to allow a range of adaptations and concretions, because culture is plural and changing. The contents and forms of knowledge are articulated in a constructive and meaningful curriculum design. The methodology has a double dimension, to facilitate individual learning and social learning, with a balance between teacher-student mediation, mediated and cooperative learning between them.

Teaching is understood as mediation of learning. This is an intervention in the cognitive and affective processes in certain contexts. The teacher is a mediator of learning and social culture. In the evaluation it is considered the formative evaluation or procedural evaluation; they are focused on assessing of the achievement of goals understood as skills, and values and summative evaluation of the content and methods depending on the goals. Memory underlies the concept of constructive long-term memory. Teacher training is aimed from a teaching-learning model to learning-teaching model. The professional will be reflective, critical, constructive and creative.

Critical, Social Model

This curricular model postulates a historical conception of knowledge and not absolute, pondering values of reason, freedom and humanity. For Roman and Diez (2003, Demuth, 2004), *Education is primarily independent, liberating and trying to unmask situations of man dominance*. The proposal of this model is not to subject everything to criticism, but to allow educational actors “become aware” of the reality to establish lines of action and transform them.

According to Pagés (1994), critical curriculum attaches more importance to the disciplinary contributions, as a support for both; the construction of knowledge and the analysis of social problems. Its main contribution is to raise the ideological character of the curriculum and practice, and to promote teaching and learning based on the principles of constructivism learning and critical thinking. The option to teach critical thinking about social reality for the formation of a thought directed to action and transformation of reality, requires students to be located at the knowledge, in a radically different way than it did in the previous two models. And also, it requires that knowledge presented in the curriculum and is taught in practice would be raised otherwise. Quiroz and Mesa (2011) suggest that the critical curriculum is a social construction that is consistent with the economic and political contexts and social movements that exert political pressure and

differentiate with social structures, existing hierarchies and ideological practices in which the subject is immersed.

In this curriculum design, the work of the citizen is to critically analyze the social processes and reveal the contradictions and distortions of social life with their own views. Critical rationality, from a dialectical point of view, seeks to clarify existing social and educational processes and the ways in which these limited understanding and thus work the opposition and resistance. In the critical curriculum, Quiroz and Mesa (2011), the subject identifies ways in which social, political and economic processes are distorted by hegemony and therefore agrees with the unveiling of structures of domination in pursuit of social transformation. The task of this curriculum has been the development of critical thinking at school, addressing the tension between education and society and between the school and state.

People education is a priority in the critical curriculum, being a formation in the exercise of aware citizens, critical and responsible which involves both the discovery of all explicit and implicit forms of oppression to which the citizen is exposed, as the undertaking of transformative actions thereof, even the claim of dignity and justice. The school is assumed as the space par excellence, where students should be introduced through a process of reflection, permanent criticism, monitoring of social conditions and the approach of alternatives that benefit everyone.

In conclusion, the objective of this proposal is the transformation of social reality and the integral formation of students. The change of the social reality becomes into process and outcome of the previous events. School, understood as a political event, comprises teaching as an exciting adventure, inexhaustible, dynamic and amazing which gathers social problems to analyze and propose ways to conduct finding solutions. To transform reality, is not just change it, but it also to conceptualize it from the social consciousness, from the strengthening of teamwork, from the consolidation of ongoing research, from the historical re signification that gives explicit explanations of a past, a present and a future as processes.

By analyzing each of the issues raised by Ramirez (2008) about the principles of the critical pedagogy, it could be seen through the teaching and learning of social sciences, with the aim of forming an analytical and purposeful citizenship, addressing the challenges of the new society. This society in which predominates the need of educating people committed to society, politics, environmental protection, social justice, among other aspects related to the social sciences.

The purpose of this research is to generate learning that maximizes critical thinking in students. Teachers should be clear that the social sciences, due to their contents, are useful to develop critical thinking in students. It is highlighted the eclectic application of both models and curricular approaches that allow them to live together in harmony in this complex changing world because of the many social relations and globalization of communication. Critical thinking is an expression of competency-based approach, because if a person understands, s/he can transfer or extrapolate his/her knowledge to other dimensions of daily life.

In this approach, it favors the information that is provided to students in their educational process to use it, ie, useful when practicing his/her profession. Wrongly, teachers often give students a number of books and additional material and they do not read it, because it is abundant and unavailable for them, for being technical or specialized information. This type of teaching methodology and

teacher attitudes do not allow them to extrapolate their knowledge to real situations in everyday life.

Learning content must be truly attractive for students to be contextualized in the classroom. It should be aware that success in learning does not depend on the amount of information provided; therefore, it should be provided the basic contents, then they can make use of the information that is in the libraries, internet and documentation centers which they can access.

Critical thinking is crucial in teaching. In education, various teaching curriculum have dominated, excelling at present the critical curriculum, which stimulates through reflection to a more lasting and meaningful learning, it also becomes very important in all educational disciplines.

In addition, it fosters learning processes socially mediated. To Ferreiro (2003), cooperative learning is the paradigm constructivist didactic contributes to education. This refers to a set of strategies that promotes active student participation, learning among colleagues that encourages interactivity and interactions. It is also necessary to intensify and diversify forms of learning to acquire social skills that in the socio-affective area increases safety and self-esteem of students and enlarges the virtues as listening, dialogue, agreement, discussion and decisions taking. In the cognitive area it helps meaningful learning, creativity is developed, contribute to problems solving and allow adaptation to different learning styles.

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