# CURRICULAR DESIGN BASED ON RATIONAL STRUCTURAL PATTERNS

## PROIECTAREA CURRICULARĂ BAZATĂ PE MODELE STRUCTURALE RAŢIONALE

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**Abstract.** *Curricular design represents today one of the major concerns for education sciences specialists as well as for the teachers involved in regular instructional actions. In this challenging context, the present paper aims at exploring some of the most important ways of instruction projection. It begins with a series of projection models launched by specialists from the Anglo-Saxon area who consecrated a certain style which has to be followed in the process of curricular projection. The perspective proposed within this paper originates in the Model of Rational Projection launched by Ralph W. Tyler and follows the evolution of instruction curricular projection. The author has in view the foundamentation of curriculum at school decision, the opening towards non-formal and informal resources, the elaboration of unitary lines of educational policy, the orientation of the educational system towards competences development, as well as centering the instructive-educative process on the learner.*

**Key words:** curriculum design, rational projection, reconceptualization

**Rezumat.** *Proiectarea curriculară reprezintă astăzi una dintre preocupările majore atât a specialiştilor în ştiinţele educaţiei cât şi a cadrelor didactice implicate în desfăşurarea curentă a procesului instructiv-educativ. În acest context provocator, articolul de faţă îşi propune să exploreze unele dintre cele mai importante modalităţi de proiectare a instruirii. Pleacă de la o serie de modele de proiectare lansate de specialişti din zona anglo-saxonă care au consacrat un anumit stil ce trebuie urmărit în procesul proiectării curriculare. Perspectiva propusă în cadrul acestei lucrări porneşte de la Modelul proiectării raţionale lansat de Ralph W. Tyler şi urmăreşte evoluţia proiectării curriculare a instruirii. Se are în vedere fundamentarea curriculumului la decizia şcolii şi deschiderea spre resurse nonformale şi informale, elaborarea unor linii unitare de politică educaţională, orientarea învăţământului spre formarea de competenţe, precum şi centrarea procesului instructiv-educativ pe cel ce învaţă.*

**Cuvinte cheie:** design curricular, proiectare raţională, reconceptualizare

## INTRODUCTION

Curriculum design represents today one of the most important concerns for specialists and practitioners in the sciences of education field. It is a main

trend in education evolution constituting itself in a curriculum paradigm that implies an axiomatic argumentation. (S. Cristea 2003, p.221). According to *The International Encyclopedia of Education*, this thing presupposes a concentration and expanding area that can be found in the following components:

1. theoretical foundations that sustain the educator – educated correlation in a social and open context,
2. educational purposes assumed at the system level (aims) and at the process level (objectives),
3. the selected and pedagogical organized contents,
4. teaching and learning methodologies,
5. evaluation/self-evaluation methods and techniques integrated in the teaching/learning strategy (1994, p. 1147).

For these reasons, as a main trend in the evolution of education, curriculum design represents an axiomatic value for the entire educational system that allows the orientation of the proposed activities toward life long learning and self- education, the premise for full capitalization of the maximum potential of educability of every human personality.

Recent studies offer the teacher a central role in curricular design, as he/she takes all decisions in the class. According to J. Snyder, F. Bolin, et all. (1992, p. 402-435), it is because curriculum design represents "the educational experiences created by teachers and students together". Therefore, curriculum presupposes "a network of relations" (Fried R. L., 2001), specific of the way teachers and students position themselves in the content of learning.

For Dewey (1902), curriculum gains the sense of a pedagogical project organized by correlating disciplines with direct or indirect learning experiences of the student, extended beyond the formal environment. This perspective on curriculum is to be developed later on by F. Bobbitt (1918) who relates curriculum to an assembly of objectives (abilities, attitudes, and knowledge), necessary for realizing the activities specific of education. F. Bobbitt's perspective is extended by W. W. Charters (1923) who proposes a structure of curriculum that lies on concrete objectives and activities established by social consensus at the level of the community.

This perspective lies at the basis of our research and it aims at outlining the axiomatic and epistemic character of the curricular design.

## MATERIAL AND METHOD

Our research is founded on qualitative strategies, combining the content analysis, the qualitative data analysis and the study of specialty documents. From this perspective, understanding the curricular model proposed by Ralph W. Tyler starts from four questions, which must find an answer in the curricular design:

1. What educational aims should school attain?
2. What educational experiences can be offered for attaining these goals?
3. How can be educational experiences effectively organized?
4. How can we determine whether these goals are fulfilled?

Starting from here, with the help of the answers offered to these four questions, the principles which fundaments any curriculum design are established.

Therefore, the rational model of curriculum design does not limit the behaviors required from students as regards realizing the specific activities, but creates strategies of thinking, action and reaction schemes, ways that allow for a profound development of student's personality. The expected results represent fundamental ways of cultivating models of problem solving as well as reaction types to diverse educational situations.

The objectives established are general, representing ways of thinking and social skills. If we consider efficiency, we aim at multiple results obtained from objectives generally, formulated and logically integrated, aspects, which, oftentimes, are not taken into, account by the critics of the curriculum rational design. In curricular construction, development and design the authors should take into account all these data while establishing the objectives and the way in which they all can be initially established or formulated (others) during the activity depending on he efficiency offered by the continuous process of evaluation.

Ralph W. Tyler's model has been extended by Hilda Taba (1962, p.12), who applied and refined the rational design, adding more steps:

- diagnosis of needs
- formulation of objectives
- organization of objectives
- selection of learning experiences
- organization of learning experiences
- determining the object, ways and means of evaluation realization.

Adding the realization of a diagnosis of needs before establishing the objectives and their subsequent organization, the author realized a higher flexibility of curricular structural sequences.

He argues in favor of the interaction between these steps rather than their order, observing that teachers do not follow the order proposed by the model in curricular design, but they have individualized ways of approaching elements specific of these models (C. Mutch, 2003, p.80).

## RESULTS AND DISCUSSIONS

An analysis of curriculum should be based on the fully understanding of what happens in schools, to lead to justified modifications while they occur but to also evaluate the intended results in order to make us understand what happens, being able to progress. M. Skilbeck (1976) describes three variants of curriculum design: the deductive rational design, the interactive rational design and the intuitive model.

1. *The deductive rational design*. It fits a centralized curricular system where the objectives of educational policy, the detailed programs, learning resources, evaluations, personnel are hierarchical controlled from the center. The fundamental mission of school is to interpret central indications. The strong points of this design are: establishing clear goals and roles anticipation, a balanced distribution of resources, objective evaluation, evaluation reserve at the level of the system as a premises of efficiency and effectiveness of the programming action (*ibidem* p.157-158).

2. *The interactive rational design*. It can be found in a mixed situation, where more participants, including local authorities, teachers and sometimes parents and students, take decisions. This design benefits of supplementary resources for learning and counseling systems. Evaluation is partly under teachers' control and learning is centered more on problem solving. Teachers have a more complex role than in the previous design to the extent to which they have to form competences which are related to the curricular development, such as: the capacity of working with objectives, self-reflexive critic, team work skills, the ability of optimal formative and summative evaluation depending on the context.

3. *The intuitive design.* It requires teachers' immediate judgment, spontaneity, inductive processes and creativity. Within this design, the class becomes the context in which decisions are to be taken. Objectives cannot be predetermined, as the concrete learning experiences have not taken place. The representatives of this type of curriculum projection are Neill, Goodman and Freinet. Intuitive judgments replace the rational planning of curriculum and teachers' qualities group in the area of knowledge, integrity, vitality and less in the area of management, organization, taking formal decisions.

All these models, designs present diverse possibilities which can substitute each other depending on concrete action contexts. The decisions to be taken will never correspond exclusively to one or another of these models. If we consider, for instance, the active role-played by the teacher in education, we have another reason to choose the rational-interactive design. If we consider student's integration in social life, the rational-deductive design is preferred.

The design promoted by Malcolm Skilbeck is the rational-interactive one which presupposes not only simple adjustments previously made to some elements of the curriculum, but also a total, global and efficient planning. We can estimate the model proposed as a starting point (J. Walton, J. Welton, 1976, p.15) for describing in detail the major components implied by the interactive rational planning, as well as becoming a useful design for schools in various contexts specific of post-industrial society.

The curricular projection design includes several componets, such as: rationing or mission, goals, the nature of the content, students and their relations with the content, general objectives (other than the goals). The most important, which cannot lack from a curricular project are the first three:

Mission represents the axiological position of the school, with an adjustment role. It has to start from an extended defining of curriculum, "including all the learning processes which take place in the formal, non-formal and informal environment" (J. Walton, J. Welton, 1976, p.20). Therefore, curriculum becomes that content and process which produces learning with a personal and social significant educational value. It includes all that is taught and the means of teaching, as well as all that contributes to forming values,

feelings, interpersonal relations from the perspective of efficient instruction and continuous evaluation required in a psychological and social context.

R. W. Forward (apud J. Walton, J. Welton, 1976, p.28), using the principles of the curriculum rational design proposes a model of adapting/renewing of curriculum in the context of a permanent changing society. He begins from the idea that school has to be child-focused. In order to do so, the process of curricular development starts with:

- aligning the general goals to the exigencies of the social environment. The general goals should incorporate the central philosophy of the respective school in areas such as intellectual-academic, physical, of social and personal development as well as the aesthetic one (1976, p.30). They should be classified depending on the importance and priority offered to a certain field or educational approach.

- emphasizing the requests, exigencies or restrictions necessary to goals achievement. It presupposes learning individualization, cooperation and teamwork, considering child's needs, rethinking the role of the teacher as regards the control of student's activity. Of equal importance are the necessary resources, the means of implementing the concept of team teaching, the capacities of curriculum projection by teams of teachers.

- redimensioning the necessary resources and the context in which curricular activities are unfolding. According to J. W. Welton (1976, p.132) curricular planning and development should be seen as a continuous process.

The elements presented show the complex interrelations which appear in the process of curricular development, between curricular theory and practice.

## CONCLUSIONS

1. This way of curriculum approach is very systematic and has a strong organizing force. The centre of this approach is the formulation of behavioral objectives, which offer a clear image of the results so that the contents and methods can be organized and the results evaluated.

2. In curricular projection, after clarifying the objectives and after establishing the ways of contents structuring an important role is played by the activities to be unfolded for attaining the objectives proposed.

3. It is important to see which are the activities unfolded within the curriculum and how it contributes to fulfilling the final goals.

4. The designs representative of curriculum projection can serve to various goals and usages.

5. The ones that centers on the conceptualization of various curricular aspects leads to designing an action model or a plan;

6. Some will be applied for solving concrete tasks such as those focusing on recreating the consensus at the level of the pursued objectives; others will be centered on solving problems regarding curricular development.

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