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KNOWLEDGE OF BASIC CONCEPTS - A PREREQUISITEOF CURRICULUM EFFICIENCY

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Abstract

A significant number of training courses have been done under a kind of "franchise" without any kind of concern to adapt the course to the spirit and the specificity of the trainees in each national context.From 1929 to 2015 an interesting evolution of these models can be noticed, intimately connected to the definition of curriculum concept. In essence, these models are either centered on curriculum design issues, or on the processof the curricular approach, either on each of the actors of the educational process. But almost all of them tend to imply elements of the learning situation, worded differently as learning experience or learning opportunity. One of them are considered product models (focused on objectives or competencies) which stress a high level of control of teacher and a great importance of contents to be learned; others are focused on process with a high level of involvement for students who are supposed to have the possibility of choice and a strong focus on social and life skills.

Keywords: *curriculum, life skills, efficiency, transdisciplinarity*

1. Introduction

Knowledge in its essence of basic concept represents a prerequisite of efficiency in any field of activity.

Unfortunately, a kind of trend seems to be felt especially within the educational reform context. The necessity of a permanent training has turn into a run after credits and diplomas or certificates, with a increasingly less concern for the substantive part of the problem: understanding what is the essence of improvement. A significant number of in-service training sessions are organized and run by different providers including the curriculum reform field.

The complexity and the dynamic of this area, the multitude of perspective of analysis and sometimes, the lack of tolerance for other scholars and practitioners vision have determined a multi - voice approach of an essentially common issue: what is the essence of curriculum: the learning situation, sometimes consciously used as a learning opportunity, other times not, which exists in educational or non-educational institutions, and, incidentally, in the everyday life.

A significant number of training courses have been done under a kind of ”franchise” without any kind of concern to adapt the course to the spirit and the specificity of the trainees in each national context. They have had an interesting effect: the use of insufficiently understood concepts, with a superior attitude, directly proportional to the degree of misunderstanding, in different professional contexts with a terrifying effect: a kind a cacophony of voices much stronger that that reported by Aoki or Pinar (1980/2005)

It's time to overcome in the context of both theory and practice of controversy for the sake of controversy; it's time to find ways of reconciliation of great ideas (NG –A – FOOK NICHOLAS (w.y) by understanding the common essence, to define the essence and build the basic of practitioners' training as actors who implement and evaluate curriculum on a tactical level.The real value of a curriculum is revealed by its implementation, by the assessment of step by step acquisition of learning experiences on the students ' level. No matter how good is a curriculum design, its quality is revealed eventually by the results of its implementation.

Thus, a prerequisite for the implementation efficiency is represented by a proper understanding of the intentions and the philosophy of a curriculum design by the actors of implementation, especially when the curriculum intends to be an innovative one. This understanding is based on a correct decode of the core concepts.

The intention of this paper is to explain several concepts constantly used with multiple meanings in Romanian educational field, with negative consequences on the curriculum implementation results.

Figure nr. 1 shows the specific place of the curriculum implementation in the ongoing process of curriculum improvement.

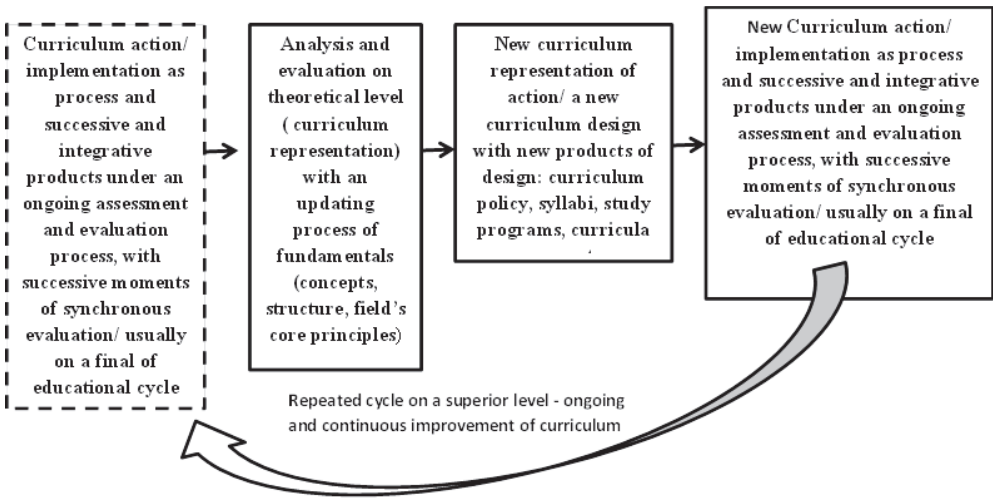

Figure 1 Curriculum implementation a core aspect of curriculum development

The source of any theoretical approach is in action, in practice but the quality improvement requires a practice based on a correctly understood theoretical approach. This, without trying to focus the attention on the importance of theory, it seems to be necessary to give to Caesar what Caesars' belongs: respect and accuracy for the theoretical meanings and the use of the concepts

2. Concepts to be discussed

2.1. Curriculum. The concept *curriculum* is understood in terms of the essence recognized explicitly or implicitly almost unanimously as *learning situations* considered in different context, even if the wording meets a wide and different terminology.

A considerable numbers of models of curriculum development or simply of curriculum can be found in the literature. A number of overviews of these models are elaborated (O'Neill Geraldine,2010; Smith, M. K. ,1996, 2000) that try to explain how they have been developed, why they exist, and what are they useful for. It is not the purpose here to reproduce in this contexts these models or the degree of consistency or discordance among them. As scholar involved in the in-service training of the practitioners of the education, my concern is to extract the essence of this issue of curriculum models, as fundamental of an efficient explanation of them for those who are not interested in an in depth understanding of the models' substance, but more about their role for the practice of education.

Since 1929 to 2015 an interesting evolution of these models can be noticed, intimately connected to the definition of curriculum concept.

In essence, these models are either centered on curriculum design issues, or on the processof the curricular approach, either on each of the actors of the educational process. But almost all of them tend to imply elements of the learning situation, worded differently as learning experience or learning opportunity. One of them are considered product models (focused on objectives or competencies) which stress a high level of control of teacher and a great importance of contents to be learned; others are focused on process with a high level of involvement for students who are supposed to have the possibility of choice and a strong focus on social and life skills.

My first concern was to extract what seems to be important as essence: the structure of a learning situation to be designed in school or in other institutions where professionals are concerned to design and run an educational approach or what simply exists within the real life with educational effects on humans.

Thus, putting together different ideas from literature a pyramidal structure of the learning situation was extracted, which involves the process as well, following the order of designing and implementing its structural elements.

The designing process of a learning situation starts with the establishment of the expected outcomes: finalities formulated as aims, goals and objectives (figure 2). They are the targets of the educational approach and they determine the selection of the necessary contents and their manner of being structured.

This selection is done by specialists who are influenced by their philosophy about education. That is why the overview of the models shows, for instance, a number of four categories of North American curriculum-making in the twentieth century:

(1)the liberal educators with a model linked to curriculum as transmission; key thinker Charles W. Taylor; (2)the scientific curriculum makers, a model linked to curriculum as product; key thinkers Franklin Bobbitt and Ralph W. Tyler. (3)the developmental/person-centered, a model linked to curriculum as process ; key thinker G. Stanley Hall. (4) and the social *meliorists* (those that sought more radical social change) a model linked to curriculum as praxis; key thinker Lester Frank Ward; (after Kliebart 1987, quoted by Smith, M. K.,1996, 2000). There are other trends, as well.

These contents can be structured in different ways and the following sequence of the paper will be focused on a brief explanation of their core features.

A specific time for selection is necessary, a time for teaching and learning, and for assessment. This time element is a third structural component of the design of the learning situation.

Specific methodology of teaching is generally recommended from the strategic level of curriculum design and it is concretely chosen on the tactical level, according to the specific of the real students and the concrete educational environment and contexts. This is the fourth step of the curriculum design and it is strictly connected to the fifth one: the establishment of the assessment methodology. An obvious consistency must exist between all these five structural elements and implicitly steps of the curriculum design.

Curriculum implementation as a process on the tactical level starts from the action of formulating objectives, according to what the syllabus presents as goals encapsulated in aims, and strictly connected to the contents used and the potential of the concrete students. The methodology of teaching and assessment follows the same determination, rooted in the concrete situation of the school environment and the students' potential. But they have to keep the core requests of the syllabus's recommendations because the goals and the aims presented must be accomplished at least at a minimal standard.If the design process starts with the formulation of the aims as general expected outcomes, continues with goals and foreshadows the formulation of the objectives on the tactical level, the implementation process accomplishes firstly the objectives, and then by successive integration, the goals and the aims are fulfilled.

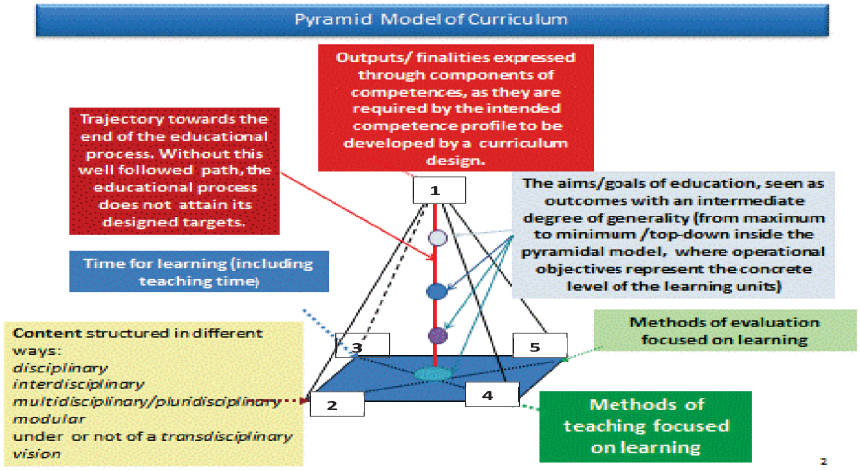

Figure 2:Pyramid model of Curriculum

2.2. Manners of structuring the contents of curriculum

The contents were for a very long time the queens of curriculum structure.

The new vision on curriculum sets forth the theory sake a new position for contents as vehicles towards achieving the expected results. But it seems that the school reality still keep the supremacy of them, if not in words, papers for national and international conferences, books in he real life of the school for sure.

A significant number of in-service training for teachers are focused on the thorny issue of the ways of structuring these contents but the literature itself still encapsulates confusions in using the different terms as: *interdisciplinarity, disciplinarity, pluridisciplinary, modules, transdisciplinarity.*

A first issue to be discussed is the mean of *content* as a concept. The answer of question what should be learnt leads to this concept. But going further it seems to be difficult to understand that the action of learning is focused not only on knowledge as memorized information but it should mean decoded information, internalized and used in a functional manner by the learner, values and shared beliefs, and learned operations as well (cognitive, psycho –motric, and physical skills) (McNeil 1981 apudWulf&Schave, 1984: 24).

*"*The content of any curriculum will depend on concepts, principles, generalizations, strategies, methods and curricular values considered by designers as *more important* (particularly with reference to concepts,

principles and generalizations), or more *desirable or acceptable* (especially when it is about strategy, methods and values)"(Niculescu, 2010:130)

The literature presents a variety of ways for structuring contents within curriculum context, depending on a number of factors of selection and structuring them. These factors gravitate around *the values and beliefs of those who contribute to the decision in developing a curriculum.*

Alternative forms of organization of content, of structuring them inside the curricular strategy have been imagined in order to meet the training of talented people with real competencies, with ability to adapt quickly to change.

Four main ways/ models of structuring context are highlighted by the specialty literature: (1) *disciplinary*- a model that has a variant called *intradisciplinary*; (2) *interdisciplinary* model; (3) *pluri* or *multi – disciplinary* model;(4)*modules*as content structures.

(1) This *disciplinary* model involves the teaching / learning of concepts, generalizations, principles and operations successively within a discipline/ subject context. Specific aims, goals and foreshadowed objectives are formulated, together with methodological suggestions. Some areas of knowledge offer the possibility of subdividing its contents. Thus,mathematics will include arithmetic, plane geometry, geometry in space, probabilistic, etc.(L. D'Hainaut, 1981apudNiculescu, 2010: 142)

(2) " Curricular area" represents the core concept for this i*nterdisciplinary* model; it that corresponds to broad areas of knowledge. Rooted in a wider knowledge domain the curricular area determines the possibility of existence of common aims and even goals with a higher degree of generality. They are to be turned into specific goals and determined objectives for each concrete area of content belonging to the defined curricular area. The model requests an active teaching methodology, focused on stimulating the development of a systemof functional knowledge *at the intersection* of different fields of knowledge, and the development of the necessary competencies for solving complex problems. This type of structuring is a good background of practicingtransversal/ transferable competencies.Thus, a cross – curricular methodological approach is recommended. The student's mind flexibility development is a target. The student is stimulated to use knowledge from an area for solving problems in another area, issues apparently specific to a field beinganalyzed from other perspectives. This interconnected approach facilitates the development of *lateral thinking*, of cognitive skills sets, all necessary to the transversal development of competencies. Open-minded attitudes of students are also considered as a target.

My students were asked to find a metaphor for this model of structuring curriculum and they have found „the metaphor of communicating vessels; in each of the vesselsthere may be a liquid with a specific color. The processing action (similar to the educational process) facilitates the combination of various colors by ensuring the transfer of liquid from a container into another. Designing the learning situation within the educational process should respect the communicating vessels principle, meaning that knowledge and capacities from one side are possible to be used on another side, enabling the transfer of learning from one situation to another, from one subject to another one, allfacilitating a proper and effective development of the student's mind and soul, a proper development of the student's cognitive and psychometric capacities on a positively evolving attitudinal background. The learner, in the same way as communicating vessels installation, will be *a whole* in which the contribution of each development department will be obvious and functional, like the colors of each container in the final color of the communicating vessels set, as the result of each component transferring from and to another component." (Niculescu, 2010: 143,144).

Another metaphor was that of a rail network involving both: the construction of locomotives and wagons, and operation. Locomotives are regarded as analogies for transversal competences that can provide transport of all types of wagons, with any content, if organizing transport network is well thought out. Students stressed the idea that the task of designing learning situations leading to such kind of organizing the learning process is of the educators, and of the students as aware learners of the necessity to develop their own learning style.

(3) *Pluridisciplinarity or multidisciplinarity* (d'Hainaut, 1988, apud Niculescu 2010:144,145) is a structuring of *thematic* type. Each thematic approach involves different areas of knowledge,focusing, in principle, on developing for student some effective and complex learning experiences, containing and involving multiple competencies. These competencies imply developing the learner's capacity to analyze, to interpret, to comment a topic from multiple perspectives.

In this context the learning situation are not addressed to a discipline or group of disciplines, but put into action concepts, principles, skills and values determined by situations circumscribed of topic or theme suite; this approach has the advantage of analyzing a phenomenon or concept in its global view; the disadvantage of a difficult advancement from what is known towards the unknown must be highlighted and measures to avoid superficiality should be taken into consideration. This model seems to be an effective one for the step of consolidation the knowledge system.

”There are other correlated terms for this type of contents structuring, such as, for example, the expression of *integrated curriculum* (Chan Kinsang,J., 2006) or the *implicit integration model* according to Thornley, C., Graham, S. (2001:32). This latter phrase is used by the authors for what is named: inter – disciplinary, but the manner of defining it, as “a *learningexperience that emerges from real life situations without reference tosubjects*”, places it closer to the multidisciplinary meaning. The same meaning is found in the formulation of *interdisciplinary curriculum,* which belongs to Su-Yen-Chen (2003: 11). It is obvious that, while the meanings of different types of structuring contents are quite clearly delimitated, just the terminology used is different. Thus, what some authors define using a term is defined by others under another term.(Niculescu 2010: 144).

(4) Modules as content structures. Organizing the contents as modules needs to consider the following criteria (D'Hainaut L., eds., 1981, p.245): (a) presents or defines a set of learning situations;(b) has a clearly specified function and well defined goals andobjectives; (c) offers further evidence for learners and teachers in order to orientatetheir action and to provide appropriate feedback; (d) it is integrated within the routes of logics and various contexts oflearning.

It is established on well specified not on a subject baseIt is necessary to emphasize that a module is differentiate in comparison with the sequences of the thematic contents closely linked with each other. It has its own existence given by what is supposed the learner will do and not by the contents. A module can integrate various learning logics, being focused on student’s acquired competencies rather than on covered content. The student can choose a module, after an initial self-assessmentof his/ her own possibilities compared with the module requests. The module implementation creates the opportunity of a permanent learner’s self-assessment, in order to be ready to choose another module if the progress isnot satisfactory, which allow the student to recognize what was able to learn, meaning what competencies he/ she has developed, not in terms of knowledge acquisition; this acquisition is implicit within the competencies development. The modular structuring makes possible a *personalized education.*A good example for modular structure is the educational module existing in the Romanian higher education system..

”The contents should be *vehicles,* means of the learning situation leading tothe development of a competent personality. In these terms I can reaffirm that, regardless of the contents or how they are structured, their smooth integration into the structure of the learning situations, their synergy

with other components of the learning situation become of primary importance. The vehicles should be appropriately driven with good and effectivelyselected methods of teaching and assessing focused on student's learning. The proper time of the route should be considered. This means that the curriculum design must have a trans –disciplinary vision, as we have defined above a construction perspective of the learning situations starting with well-defined expectations, in terms of competencies to be developed beyond contents, but with their help, through an appropriate methodological approach both of teaching and assessment. This way ofanalyzing the curriculum issue is explicitly or implicitly found in a number of authors' works (Prevedel A., 2003, Maxwell IN, 2006 apudNiculescu, 2010: 146)

3. **Transdisciplinarity- a principle of designing a curricular structure not a way of structuring contents**.

This principle stipulates the necessity that the focus of any model of structuring contents must be on the achievement of a genuine development of learners on each of the following fields: intellectual, emotional, attitudinal and psychomotor.

Different models of structuring the contents can be addressed at various stages of education, depending on the age of students, the school type, the defined aims and goals but principle trans – disciplinary is required to be respected under all conditions. Maybe it is necessary to stress that as D'Hainaut said, the term trans - disciplinary is sometimes used as synonymous with *pluri-disciplinary*. Also, it is important to say that the disciplinary term comes from French literature. *Trans- curricular* could be a term inviting to understand that behind anything what is done in a curricular context important are the achievement of the expected outcomes, formulated in terms of competencies of the students.

Trans-curricular approach is in my opinion the essence of the curriculum reform, it is the core issue of understanding the necessity of this reform focused on quality, on a higher level of education for each learner trained to be able to involve further in a learning process along the entire life. This principle is the core issue for what it is worded as "lifelong learning process!

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