A Hyper-Rationalistic Model for Curriculum Development:
First Draft

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Abstract

This paper presents a first draft of a model for curriculum development designed in the conceptual framework of the hyper-rationalistic pedagogy. Therefore, our idea to build a model of curriculum development is staked on two theoretical concepts: theory into practice and mereologic reasoning. We used the Posner’s questions (1998) to analyze the curriculum development models: procedural question, descriptive question and conceptual question. Based on this conceptual question, we have analyzed several widely known and used curriculum development models. Consequently, was made a first draft of the hyper-rationalistic model of curriculum development. This paper presents that draft but in order to complete the model, our project provides another two research steps. These two steps consist in the implementation process of a randomized-block pedagogical experiment on two similar independent groups, made of 120 participants. After these final steps, we’ll be able to sustain the hyper-rationalistic model of curriculum development with empirical data.

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Keyword: hyper-rationalistic pedagogy, theory into practice, mereologic reasoning, curriculum development models.

1. Introduction

In Romania, the educational area was marked by many reform periods after 1989 (1994, 1997, 2005 and 2011). The curriculum issue was always a central one during these periods. Unfortunately, the use of curriculum term and curriculum theory in the Romanian pedagogical area was delayed with, at least, four decades. Thus, in the last decades of the 20th century, the proposed Romanian curricular models were similar to those already

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seriously disputed in the European countries and especially in the U.S. Therefore, Romania has entered in the modern curriculum era, when the developed countries were already in middle curriculum post-modern era.

The modernist stage (1949 – 1980) has as starting point the curriculum model developed by Ralf Tyler (Tyler’s Reasoning, 1949). It continues with its capitalization in a general theory of curriculum and in a technological curriculum (Smith, Stanley, Shores, 1950). The peak of this stage is achieved by developing a real engineers curriculum incorporating: educational objectives taxonomy (Bloom, B. et. all, 1956), curriculum design improvement, Mastery-learning paradigm (Carroll J. B., 1963) and the learning type hierarchy (Gagné R. M, 1975). The post-modern stage (1980 – 2000) is characterized by a vehement type of modern engineering curriculum and the elaboration of the curriculum multidimensional and flexible post-modern models.

Seduced by the modern curriculum models (especially Torshen K. P, 1969), therefore "by the term of competence, the designers of the new Romanian curriculum, thought that they can combine it with the curricular model based on Bloom's taxonomy in order to achieving a higher synthesis. But, this mixture has proved malignant. The result was a chaotic mixtum compositum of objectives, skills, capabilities, performance, benchmarks, specific objectives, terminal objectives, basic skills etc. unstructured hierarchically, without specific reports and clear relationships between these instructional components. In practice, the teachers are perceiving the new pedagogical language as a complicated, unprecise, unprofessional (is there any other synonym for this word) and empty rant, which does not explain, but stifles the efficient training approaches" (Dobridor-Negret, I., 2008).

The theoretical confusions and the unsuccessful practical applications were powered by the vague understanding of the term of curriculum, by the absence of an appropriate curriculum praxiology, and by lacking a curriculum development model specific to the Romanian educational area. Currently, the elucidation of the curriculum term is solved through the comprehensive multidimensional model (Potolea, D., 2002), which is reference in present. We consider that curriculum development still represents a problem.

Nowadays, at international level, the curriculum theory crosses the hypermodern stage. Professionals in the field try to combine the scientific achievements of the modern era with a post-modern vision curriculum and to formulate full and comprehensive curriculum models, which are really centered on learners and on their full development. The general opinion is that the current hyper-rationalistic pedagogy (Pinar W. et al., 2001) can provide a solution for the complex issues of curriculum theory and educational practice. We share this approach and we consider that the hyper-rationalistic pedagogy will be able to solve the problems of education in an increasingly more complex society in which the school must prepare today’s students for tomorrow’s society which is hard to predict.

This paper presents a first draft of a model for curriculum development designed in the conceptual framework of the hyper-rationalistic pedagogy.

2. Theoretical foundation of the hyper-rationalistic model of curriculum development

The theoretical foundation of our investigation is the conceptual framework of the hyper-rationalistic pedagogy. So, we made our analysis staked on two theoretical concepts theory into practice and mereologic reasoning.

Theory into practice is the burden of the hyper-rationalistic pedagogy, in which the pedagogy is trying to answer in a scientifically rigorous way to the current problems of education. In this context, the specialist is a consultant to various actors from the educational environment that provides viable solutions to the problems they face. The main actor of hyper-rationalistic pedagogy is the specialist-consultant whose task is to integrate in the current educational practice, valuable pedagogical theories and the curriculum educational research’s results, realized in a rigorous epistemical way. The central idea of hyper-rationalistic pedagogy is precisely to realize an educational theory for the paideutical practice, detached itself from the practical study, a theory that answers precisely to a need, drawn also from precisely practical contexts. In this context, the results is the development of
a specific curricula, influenced by or contingent to specific contexts and needs and not the generally valid curriculum which was used in the previous modern era.

The etymology of the word mereologic is from the Greek μέρος, which means part. “As a formal theory, mereology is simply an attempt to set out the general principles underlying the relationships between a whole and its constituent parts, just like set theory is an attempt to set out the principles underlying the relationships between a class and its constituent members” (Varzi, 1996). Therefore, in educational filed, the mereologic reasoning requires detailed study, point by point, of the educational reality. It is proposed a technical perspective for each small detail of the educational context. From this point of view, each part as well as the whole has the same importance. From another point of view, the relation between parts and whole isn’t mathematics. Sum of the part is not equal to the whole, because the whole include even the relationship between the parts. We can found different sources for more details on this approach, such as: Eberle R. A. (1970), Burkhardt H. and Dufour C. A. (1991), Henry D. (1991) or Simons P. M. (1991).

In line with our aim, we made a research study with the following steps: first – used Posner’s conceptual and procedural questions to analyze curriculum development models, second – made a first draft of a curriculum development model.

2.1. Using Posner’s Questions to Analyze the Curriculum Development Models

In curriculum development field, many curriculum models were drafted over the years, varying from simple to complex. Posner (1998) argues that this variety of approaches can be partially understood as a set of responses to different curriculum planning questions. Therefore, he proposes to examine answers to three different questions:

The procedural question: What steps should one follow in planning a curriculum?

The descriptive question: How do people actually plan curricula; i.e., what do they do?

The conceptual question: What are the elements of curriculum planning and how do they relate to one another conceptually? (1998, p.80).

Because we intend to make a model to curriculum development, firstly we are interested to know which are the usually elements of a curriculum development model and also which are the steps of curriculum planning. Consequently, in this paper we used only the Posner’s conceptual and procedural questions to analyse the selected curriculum models. The results of this analysis are shown in the table below.

<table>
<thead>
<tr>
<th>Author</th>
<th>Date of publication</th>
<th>Model designation</th>
<th>Elements of curriculum model and steps of the curriculum planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bobbitt F.</td>
<td>1924</td>
<td>Bobbitt’s Model</td>
<td>selecting, increased and/or elimination goals &gt; involvement of the community &gt; setting differentiated objectives &gt; stages implementation plan to attain the objectives</td>
</tr>
<tr>
<td>Charters C.</td>
<td>1923</td>
<td>Charters’s Model</td>
<td>setting a set of principles &gt; using compartmental objectives &gt; derivation of the objectives from the learners need &gt; developing subject matter</td>
</tr>
<tr>
<td>Tyler R.</td>
<td>1949</td>
<td>Rational Planning Model</td>
<td>objectives &gt; selecting learning experiences &gt; organizing learning experiences &gt; evaluation</td>
</tr>
<tr>
<td>Taba H.</td>
<td>1962</td>
<td>Induction Model</td>
<td>diagnosis of needs &gt; objectives &gt; methods &gt; subject matter &gt; evaluation</td>
</tr>
<tr>
<td>Goodlad and Richter</td>
<td>1966</td>
<td>Planning Levels Model</td>
<td>follows the Tyler’s model in three levels of planning: instructional, institutional and societal level</td>
</tr>
<tr>
<td>Johnson</td>
<td>1967</td>
<td>P-I-E Model</td>
<td>planning elements &gt; implementation elements &gt; evaluation elements</td>
</tr>
<tr>
<td>Schwab J.</td>
<td>1969</td>
<td>Schwab’s Model</td>
<td>clear separation of ends and means &gt; deliberation &gt; commonplaces (subject matter, learner, teacher, milieu)</td>
</tr>
<tr>
<td>Walker D.</td>
<td>1971</td>
<td>Naturalistic Model</td>
<td>platform &gt; data &gt; deliberation &gt; policy &gt; design</td>
</tr>
</tbody>
</table>
2.2. First draft of the hyper-rationalistic model of curriculum development

Using the conceptual framework described above and the analysis results of the curriculum development model we make below a short description of the structure and process of the hyper-rationalistic model. The structure has the following elements, equal as importance for building the curriculum: learner’s needs and curriculum demand, curriculum environment, curriculum goals and objectives, subject matter, time, instructive strategy, evaluation strategy. The curriculum planning process can start with the design of each of these elements. More important than the order in which are designed these elements are the following aspects: (1) curriculum planning is not finished until each of these elements are designed, (2) the design of each element is developed taking into account the direct relationship between an element and each of the others, (3) the compete design of each element is realised only after the element is developed taking successively into account its relationship which each element mediated by the rest of elements. Consequently the process of curriculum design model is not a linear, is a circular one. This process includes the following steps: statement of the curriculum demand through the analysis of learner’ need and curriculum environment, specification of the curriculum goals and objectives, specification of subjective matter, specification time, instructional strategy, selecting evaluation strategies.

In order to complete the model construction we’ll develop a pedagogical experiment on two similar independent groups, made of 120 participants. This approach we’ll allow us to sustain the hyper-rationalistic model of curriculum development with empirical data.

3. Discussion

The hyper-rationalistic model contributes to the increase acknowledgement in the field of curriculum development. We propose a curriculum model in an actual view which consider being very important all the curriculum elements. The proposed model in this paper can be distinguished through its circular structure, through the equality between elements and it processual steps and not finally through the possibility of starting...
curriculum planning which each of the elements. In the perspective of project finalization, the hyper-rationalistic model of curriculum development has the advantage of having an empirical foundation.

4. Conclusions

This paper presents a first draft of a curriculum development model designed in the conceptual framework of the hyper-rationalistic pedagogy. The model is a circular one, having seven elements and six steps of curriculum planning. It must be assigned that the presented model is not complete, is under construction.

Acknowledgements

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