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Future Directions: Uncertainty and Possibility

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Curriculum and Pedagogical Innovation: an intersection (im)possible?

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Abstract

The title of this article suggests a complex relationship between the curriculum and the pedagogical innovation.

The question that I propose to explore here is not necessarily looking for an answer, nor a magic formula for the intersection between these two poles. I suggest we regard this article, regardless the approach adopted, as a scrutiny of the factors that condition (preventing or enhancing) this intersection and as a starting point to other approaches, on the relationship between the curriculum and pedagogical practices, in the context of the classroom.

Thus, this article is divided in four parts: I. approach around the concepts of curriculum and pedagogical innovation II. the curriculum as a condition of pedagogical innovation, III. the emergence of a new system of pedagogical intervention and IV. (im)possibilities of intersection between curriculum and pedagogical innovation.

In the end, rather than presenting conclusions, is to launch new (or old) queries around this issue, add questions to questions, raise new problems and make the way for further discussions and / or new lines of research within the curriculum research.

Introduction

Recognizing that the approach around the curriculum is too broad and complex to the extent that, as refers Gimeno Sacristan (1995), implies a systemic analysis, or in other words, a careful look at all social subsystems (cultural, economic, political, between others) that define and express themselves through it, it will focus on this approach in the level that the author defines like as the most immediate (or concrete): *subsystem practical and pedagogical of the curriculum*, which relates precisely to the processes and pedagogical practices. Thus, the discussion presented here involves the confrontation, theoretical although, between the prescribed curriculum and the context of their implementation / operationalization (classroom). Based on this confrontation, it will seek to understand how the curriculum affects pedagogical practices, blocking or potentiating the innovation in this context.

Following this line, this approach leads in another piece of the puzzle curriculum that has been neglected in the field of curriculum studies - learning.

As refers Young (1998), "focusing on learning should be the center of educational critical theory of the future" (p. 181) and, considering that "the curriculum is inseparable from learning and pedagogy" (Young, 2010, p. 48), this approach is unavoidable in the relationship curriculum-pedagogical innovation. In other words, the question behind this approach is as follows: To what extent the prescribed curriculum (curriculum decided centrally) promotes or not the innovation of pedagogical practices? We'll be facing an unavoidable impossibility?

1. About the concept of curriculum

The concept of curriculum contains, in itself, distinct meanings, and sometimes incompatible, that hinder their practical and theoretical conceptualization (Pacheco, 2006; Silva, 2000; Pinar, 2007; Young, 2010). Tomaz Tadeu da Silva (2000) refers, in this respect, that "what the curriculum is depends precisely on how it is defined by different authors and theories" (p.12). In this sequence, theories must be understood as "classification or synthesis of various conceptions of curriculum, presented either in the form of guidelines, ideologies, whether in the form of legitimation processes and knowledge models" (Pacheco, 2001, p.33).



Zabalza (2004) conceives the curriculum as "the entire set of actions taken by the school with the sense of "learning opportunities" (p. 28). Stenhouse (1984) goes a step further and addresses the curriculum as a concept that embraces the decisions taken at the political / administrative (curriculum and teaching program or project), the decisions taken at regional level and the school and the curriculum as analysis scheme of what actually happens inside the classroom. The latter remit to student learning resulting from the operation of the program and / or curriculum design.

Roldão (2003) argues that critical theory and post-critical have focused primarily "on the mechanisms of power and hierarchy and legitimation of knowledge that underlie the curriculum and its social construction" [and that] the direct approach to the curriculum as organized body of learning and teaching has remained practically untouched "(p.17).

2. About the concept of Pedagogical Innovation

The concept of pedagogical innovation, has gained more space, either in the discourse of educational policy, either in their own educational institutions. However, finding a clear definition of pedagogical innovation, able to cover all the meanings that the concept contains, it becomes a task too complex.

Hernández (1998) refers that pedagogical innovation has different meanings, depending on the actors involved and, in this sense, any innovation is always motivated by values (those who promote it, those of whom coordinates, the who puts into practice and who receives their effects).

The concept of innovation appears, usually, associated with the concepts of change and reform. Correia (1989) distinguishes it from synonyms commonly attributed to it stating that all innovation causes always a rupture, even partial, with traditional practices. In this sense, consider a change process as an innovative process requires:

an explicit reference to the type of break that he produces with ancient practices, the actors who are responsible for producing change, the degree of decision that each of them had in the production process and development, and of course, a detailed reference to the amplitude change (Correia, 1989, p. 28).

Independently of the multiple meanings of the concept, pedagogical innovation "implies qualitative changes in the pedagogical practices and these changes always involve a critical positioning, express or implied, in relation to traditional pedagogical practices" (Fino, 2008, p.277).

In this sequence, pedagogical innovation refers, firstly, to changes related to educational practice, and particularly with the pedagogical practice of teachers and, secondly, to structural changes in the central administration and education policies, as these influence the processes, practices and actions of the actors involved.

In this context, the curriculum should be instituted as a mechanism designer and developer of proposed intervention, transformation and change in the educational system (Marcelo, 1994), transformation and process improvement of teaching and learning, with repercussions in student success (Pacheco, 1995) and can embrace processes "ranging from changing specific components - such as objectives and proposed contents, methods and strategies suggested, textbooks support - until the restructuring of the curriculum" (Ribeiro, 1992, p. 73).

The curriculum innovation can not turn off, so, its practical context, which implies a necessary articulation between the different contexts of curricular decision and a recontextualization of the curriculum to the local dynamics, regional and the specific dynamics of each school (Flores & Flores, 1998; Pacheco, 1996).

3. The curriculum as a condition of pedagogical innovation

Carlos Fino (2009) argues that "the first step in any process of innovation must coincide with an awareness of the existing constraints against it" (p.275). In this sequence, the author draws attention to the *cultural invariant* , whose origin is part of a common cultural matrix of schools, as the first constraint to be dismantled:

An invariant whose presence will manifest a bit everywhere, existing even in the minds of those who have not been subjected to any process of formal schooling, which suggests surreptitious forms of



organization of school space and roles that should be performed by teachers and students, coming to interfere in the definition what will be, possibly, a good architecture to the service of education (Fino, 2009, p.259).

These most characteristic aspects of *the cultural matrix of common schools* constitute, itself, hidden components of the curriculum, to the extent that this stereotypical representation of the school, as well as the roles and functions that are expected of different actors is, in itself, carries meaning.

Assuming that the curriculum is one of the major constraints of the transformation of pedagogical practices, it will look in the next topic, to list a number of factors associated with the prescribed curriculum that condition and hinder the pedagogical innovation.

3.1. An uniform curriculum

The centralist tradition of our educational system emphasizes, according to João Formosinho (2007), the prescriptive character of exhaustive programs that "it is up to schools and teachers just "meet "- not" hold "or" rethink "(p.10). In his article *The Uniform curriculum- Ready-to-wear-one Size*¹ the author gives us the account of a curriculum equal for all, totally unsuited to the diversity of students at a school for the masses. A curriculum is an instrument that not only told the teacher what he should teach, but also the time and duration of dedicated to teaching the respective program contents. "Is that the weekly and annual car is one of the organizers of the teaching and this is just a means in relation to the true end of education that is learning" (Formosinho, *ibid*, p.21).

The much proclaimed pedagogical differentiation is, in this scenario, a very complex process and, sometimes, impossible, the teacher putting major constraints in the operation, reformulation and reconstruction of the curriculum (Gimeno, 1998) in the classroom. A good part of the studies concerning the role of the teacher as an agent curriculum, reinforcing the idea that the teacher should be seen as a professional capable of making decisions, according to their knowledge, their values, their ideas, the their critical thinking in the context of practice (Schwab, 1969; Stenhouse, 1987; Well-Peretz, 1988). But the question that arises is: what is the degree of autonomy that the professor has (in curricular terms) to take decisions?

On the other hand, it should be clarified two issues here that are apparently distinct but mutually intersect: the *pedagogical differentiation*, which deals particularly with the organization of the processes and practices of *teaching-learning* and the *curricular differentiation* which relates to the curricular offerings.

Not intending to explore, in this context, the issue of curricular differentiation, it is particularly important to question to what extent certain model curriculum interferes with the pedagogical practices of teachers, potentiating or inhibiting pedagogical innovation. To what extent is it possible to articulate certain logical, focused on teaching-learning activity, with the prescribed curriculum, "when the school structure, the organization of time and space and the structure of teachers' work are regulated by a model [curricular and institutional] that goes against "(Roldão, 2003, p. 55) of such logic? What pedagogical logic induces the prescribed curriculum?

3.2. An decontextualized and abstract curriculum

Another aspect that puts the curriculum under suspicion relates to the nature doubly abstract (since its conception of the nature of the content itself).

Formosinho (2007) reported that, in its design, the *uniform curriculum* based on an abstraction, as it is based on

"Average student" who learns "normal rhythm", taught by an "average teacher" in "school averagely equipped". Such a student, such learning rhythm, such teacher and such school exist only in the statistics and in the minds of "illuminists" who designed the curriculum. Not found in our schools (p. 22).

As regards content, school programs ignore microcultures regional and contextual, which accentuates the gap between school culture and everyday life.

¹ Written in 1985 for the *Jornal de Notícias* and at impact it had, was to be published (in book) in 2007.



Pacheco (1996) argues that the introduction of regional and local components in the curriculum is "one of the fundamental points of curricular innovation" (p.153). In the same line of thought Blásquez (1994) argues that this decentralization should be made from the center to the periphery, of the central administration for educational institutions and that innovation should focus on school, which implies greater autonomy for the teacher and the adoption curricular projects locally situated and developed a collaborative logic.

3.3. An fragmented curriculum

Edgar Morin (2003) draws attention to the inadequacy of compartmentalized knowledge, grouped by subject, given the complexity of reality. Following this line of thought, the curricula to accentuate the separation of knowledge, fragmented disciplines, hinder and distort their apprehension and comprehension, given its transverse and multidimensional dimension. In a well designed curriculum become invisible, as regards Morin (*idem*), "the joint complex, the interactions and retroactions between the parts and the whole; multidimensional entities and essential problems" (p.13).

3.4. An instructional curriculum

The curriculum studies have focused, essentially, "on the understanding of practices based on the indicators (political, professional, administrative, legal, etc.), that permit discusses or the knowledge transformed into learning content, or the forms of their organization" (Pacheco, 2007, p. 57). The author refers that, at the same time the discourse around the school and the curriculum has been increasingly influenced by critical theories, curriculum practices are increasingly legitimized by the theory of instruction, based on the model of *technical rationality*.

How to refer Sacristan (1995) and Fino (2009), the teacher-student relationship is also conditioned by the curriculum that, explicitly or implicitly, determines the roles of each others and, consequently, the type of relationship that is generated in this context.

Es obvio que el curriculum hace referencia a la interacción e intercâmbios entre profesores y alumnos, expresándose en prácticas de enseñanza-aprendizaje bajo enfoques metodológicos muy diversos, a través de tareas académicas determinadas, configurando de una forma concreta el puesto de trabajo del professor y el de aprendiz de los alumnos (Gimeno Sacristán, 1995, p. 29).

The curriculum, in its dimension expresses and hides, focuses mainly on the role of the teacher as a diffuser, performer and transmitter curricular content. And, if we understand the curriculum as a *project-in-construction* (Morgado & Pacheco, 2011), it "can not be limited to a predefined set of teaching materials and teaching procedures standardized and identical for all" (Morgado & Pacheco, 2011, p. 42).

4. The emergence of a *learning curriculum* - constructionism as a system of pedagogical intervention

Firstly, it is important to clarify the terminology learning curriculum should not be interpreted in the context of this work, as an opposition to teaching. Let us try to understand it, without any equivocation, as a way to draw attention to the importance of a teaching mode more focused on students and their individual needs. Or, alternatively, we can also interpret it as a clear opposition to the curriculum that leads to teaching centered on the figure of the teacher as a mere transmitter of knowledge.

Pedagogical innovation implies a profound reflection on the role of the teacher, the student and how both relate to learning (Fino, 2009). Appears, this sequence, a curriculum potentiator learning contexts, focused on students and in their specific needs and potential, in other words, a curriculum that allows students to be, themselves, the protagonists of their learning process and constructors of their knowledge.

Recognizing that the answer to how individuals learn is far from being answered (nor is it the purpose of this work), the proposed constructionist as a system of pedagogical intervention in a *learning curriculum*, should be understood only as an alternative system possible within many others that could possibly be considered. In this context, the choice of theoretical references that underpin this approach falls on Vygotsky, Papert and Fino.



The *sociocultural theory of learning*, supported by Vygotsky (1978) and taken up later by Papert (1991, 1993), shows us that learning takes place in a particular sociocultural context, being the knowledge socially shared and constructed (*construccionism*). The development of the individual results, thus, from its interaction with the world and with others, this interaction is mediated by artifacts and tools socially constructed and shared. These tools may have, as regards Fino (1998), "a symbolic structure, such as language, or utensils can be of any type, including software" (p.1). In learning contexts this interaction is not restricted to the teacher-student communication but also the environment, the context in which the communication occurs. For Vygotsky (*idem*) all cognitive functions appear twice in the child's cultural development: first *interpsychologically* (between people) and subsequently *intrapyschologically* (within the child). In this case, the internal reconstruction of external operations, Vygotsky gave the name of *internalization*, which is the result of a series of developmental stages which allow the child to turn interpersonal processes intrapersonal processes. The concept of *Zone of Proximal Development*, developed by Vygotsky, is of great importance in this approach, in that it leads to a conception of curriculum, in which teaching and learning can not be considered, from the standpoint of conceptual and practical, as a "disjunctive utterance" (Pacheco, 2013).

4.1. The Zone of Proximal Development (ZPD) as the principal support of a learning curriculum

The PDZ express the idea of a potential area of cognitive development, defined by Vygotsky (1978) as follows:

Is the distance between the actual developmental level as determined by independent problem solving and the level of potencial development as determined through problem solving under adult guidance or in collaboration whith more capable peers (p.86).

In other words, the ZPD is the difference between the independent and assisted performance.

What implications does the ZPD in learning curriculum? Carlos Fino (2000), in his reflection on the ZPD of Vygotsky, lists three major implications of the ZPD in education: 1). a window of learning, 2). learning as metacognitive process and 3). the importance of peers as learning facilitators.

Regarding the first implication, "the idea of ZPD suggests the existence of a window of learning in every moment of cognitive development of the learner, considered individually" (Fino, *ibid*, p.116). For this reason, a group of students, there is not only exist a window of learning, given the high number of students. And here is one of the main fundamentals of a learning curriculum.

Suit different learning implies windows provide each student group a wide range of proposals (activities, content, materials) that enable them to customize their learning and build your knowledge.

The second implication of the ZPD suggests that any learning process involves, in addition to internalization, an awareness (by the apprentice) of their knowledge. And this process can be guided by the teacher who must confront the students with tasks or strategies that lead to this awareness. Faced whith this metacognitive process, the student is then able to start the learning process at a higher cognitive level gradually.

The third implication of the ZPD in education lies in the importance attached to pairs as learning facilitators:

Teaching an group of children, whose ZPD (windows or learning) only partially overlap, raises obvious problems, which can only that can only be minimized by the use of appropriate strategies, which may be based on peer interaction (Fino, 2000, p.120 .)

In other words, teach, or to intervene in a ZPD, in Vygotsky's perspective, implies a one to one, so, in a class with many PDZ this intervention, with only a mediator, would become almost inglorious task (especially in groups with a high number of students). The collaborative learning, mediated by more capable peers, is a strategy that can help solve (or mitigate) this problem.

The concept of mediation is of particular importance in this context, and in a *learning curriculum*, assuming the teacher and peers as mediators, imposes the question: How to set the mediator teacher? Being a teacher, in the perspective of Vygotsky, means acting in a ZPD, providing students the support and resources to enabling it to apply a higher level of knowledge than it would be possible without help. Or, in other words, attend the student so that it be able to act at the limit of their potential. According to Papert (1980) the role of the mediator is to provide "all child support while it builds their intellectual structures with materials obtained in the culture that surrounds it" (p. 49). In this perspective, students learn according to the opportunities given to them to build their knowledge. The table below presents the main characteristics, as a synthesis, of the



instructional curriculum (more centered in teaching) and curriculum constructionist (more focused on learning):

Instructional curriculum	Constructionist curriculum
Emphasis on teaching.	Emphasis on learning.
The teacher as a "transmitter of knowledge".	The teacher as learning facilitator (<i>assisted learning</i>).
Passive role of students in their learning process.	Active role of students in their learning process and knowledge construction.
Teaching predominantly unidirectional: from teacher to students.	Collaborative learning: interaction between all stakeholders (the importance of other social in the knowledge construction).
Educational practices oriented to reproduction and school results.	Educational practices oriented to reflection and critical spirit.
Designing curriculum that does not respect the rhythms and learning needs of individual students.	Designing curriculum that meets students' ZPD distinct.
Organization of schools and classrooms (hidden curriculum): spaces that determine the prominent role of the teacher and the passive role of students; organization of classes or classes according to age.	Organization of schools, classrooms and classes: promoters spaces of interaction within and between pairs, group work (cooperative learning); saturated spaces of <i>cognitive nutrients</i> (Papert); the criterion of age in the preparation of classes no longer relevant.
Use of Information technology and communication (ITC) as a teaching resource.	Use of ITC as tools for mediation of learning and cognition.

5. (Im)Possibilities of intersection between the curriculum and pedagogical innovation

The approach that was presented here, focused on learning and learners, in the rhythm, on the needs and learning capabilities of each one, is only a proposal to be explored the intersection between the curriculum and pedagogical innovation. But it will be operationally a *curriculum constructionist*? With classes and groups of students ever higher, with an evaluation system increasingly focused on results, with national tests at the end of the teaching cycles, which require "an articulation between the national curriculum and external summative assessment [which results] control purposes at the level of teaching contents, transformed into learning goals "(Pacheco, 2012, p. 4), there will be conditions for a constructionist approach of the curriculum? To what extent is this centrality in the results (or not...) to influence the pedagogical practices of teachers? What curricular autonomy have, effectively, the teachers?

Pedagogical innovation, with repercussions on pedagogical practices and the improvement student learning depends, firstly, the way the curriculum is designed and prescribed, allowing (or not) an effective transversality / interdisciplinarity of contents, an effective flexibilization of curricular content (according to regional and local specificities local and according to specificities of schools) and, secondly, of teachers (as the main agents of curriculum) and the margin of maneuver that teachers have in developing the curriculum. Pedagogical innovation can not dissociate itself from the action of teachers (as professionals critical, reflective and attentive to emerging changes) and other educational agents (Pacheco, 1995), but the action of teachers does not depend, exclusively on, of themselves and their willingness to innovate. And it is between these two poles, between what is prescribed and determined centrally and what is possible to decide in the classroom, that the intersection of curriculum and pedagogical innovation can happen, or not.

(In) conclusion - a challenge to the study of *curricular cultures*

Pedagogical innovation implies, the one part, a deconstruction of models and curricular practices in force, but also, a restructuring of learning contexts. With regard to curricular practices, urgent direct curricular studies



for research into *curricular cultures*², understood in this context, within the meaning given to it by Morgado and Pacheco (2011):

The notion of curricular culture is broader than the notion of teaching culture or school culture, reporting on, the one hand, to values, beliefs, attitudes, conceptions and behaviors, that give meaning to the thought of the subjects in the curriculum construction in specific contexts, and secondly, to the curricular practices that develop for their implementation, as well as the relationships that are established between them (p.45).

In this context, talk about curricular culture implies a holistic approach to the curriculum, in other words, the study of discourses and practices that mediate the relationship between the various contexts of decision, through which it is configured and, simultaneously, the articulation between the various actors that interfere, directly or indirectly, in its operationalization (management bodies, teachers, students, parents).

That curricular Culture that govern the everyday curriculum of the classroom? As teachers take ownership of the prescribed curriculum? What interpretations, filters and (de/re) constructions determine the real curriculum (lived and developed in the classroom)? And the students? What sense assign students to the curriculum? What forms of intervention or decision have students in the construction of the curriculum? And the charge of education? How to watch the charge of education for the curriculum? What degree of intervention have this issue?

The study of curricular cultures, to the focus on the daily activity of the classroom, refers to a curriculum conception capable of embracing the scientific and pedagogical, knowledge and practice (Caria, 1997), the theoretical and the practical, the formal and informal, the expressed curriculum and hidden curriculum. And, in this sense, the answer to the question posed at the beginning of this paper, about the (im)possibility of intersection between curriculum and pedagogical innovation, although it can be discussed theoretically, lacks an empirical approach, under which the contributions of the study curricular cultures are of particular importance.

References

- Blásquez, F. (1994). Investigación y metáfora del currículum. In S. Barrio (org). Didáctica General. *Un enfoque curricular*, pp. 271-292. Alcoy: Marfil.
- Caria, T. (1997). As culturas curriculares dos professores de matemática: uma contribuição etnosociológica no quadro do 2ºciclo do ensino básico. In *Educação, Sociedade e Cultura*, pp. 55-74.
- Correia, J. A. (1989). *Inovação Pedagógica e Formação de Professores*. Edições Asa.
- Davis, S., & Botkin, J. (1994). *The Monster under the Bed: How Business is Mastering the Opportunity of Knowledge for Profit*. New York: Simon & Schuster.
- Fino, C. (2000). *Novas Tecnologias, Cognição e Cultura: um estudo no primeiro ciclo do ensino básico* (Tese de Doutoramento). Lisboa: Faculdade de Ciências da Universidade de Lisboa.
- Fino, C. (2007). O futuro da escola do passado. In J. M. Sousa & C. Fino. (org). *A Escola Sob Suspeita*, pp.31-44. Porto: Edições ASA.
- Fino, C. (2008). Inovação Pedagógica: Significado e Campo (de Investigação). In A. Mendonça & A. Bento (orgs.). *Educação em Tempo de Mudança*. Madeira: CIE – UMA.
- Fino, C. (2009). Inovação e Invariante (Cultural). In L. Rodrigues & P. Brazão (Orgs.). *Políticas Educativas. Discursos e Práticas*, pp. 259-277. Madeira: CIE-Uma.
- Formosinho, J. (2007). *O currículo uniforme pronto-a-vestir de tamanho único*. Mangualde: Edições Pedagogo.
- Formosinho, J. & Machado, J. (2007). Modernidade, Burocracia e Pedagogia. In J. M. Sousa & C. Fino (org). *A Escola sob Suspeita*, pp. 97-115. Porto: Asa Editores.

² Concept developed by Morgado & Pacheco (2011) and Caria (1997).



- Formosinho, J. & Machado, J. (2009). *Equipas Educativas. Para uma nova organização de escola*. Porto: Porto Editora.
- Flores, M. A. & Flores, M. (1998). O professor: agente de inovação curricular. In J. A. Pacheco ; J. M. Paraskeva ; A. M. Silva. (org.). *Reflexão e Inovação Curricular : actas do Colóquio sobre Questões Curriculares*, 3. Braga: Centro de Estudos em Educação e Psicologia da Universidade do Minho.
- Gimeno Sacristán, J. (1985). *La pedagogia por objetivos: obsesión por la eficiencia*. Madrid: Ediciones Morata.
- Gimeno Sacristán, J. (1995). *El curriculum: una reflexión sobre la práctica*. (5ª ed.). Madrid: Ediciones Morata.
- Grundy, S. (1987)). *Curriculum: Product or praxis*. The Falmer Press.
- Hargreaves, A. (1998). *Os Professores em Tempos de Mudança – O Trabalho e a Cultura dos Professores na Idade Pós – Moderna*. Amadora: Editora Mc graw – Hill de Portugal.
- Hernandéz, F. (1998). *Transgressão e mudança: os projectos de trabalho*. Porto Alegre: Artmed.
- Marcelo, C. (1994). *Formación del profesorado para el cambio educativo*. Barcelona: PPU.
- Morin, E. (2003). *A cabeça bem-feita: repensar a reforma, reformar o pensamento*. (8ª ed.). Rio de Janeiro: Editora Bertrand Brasil.
- Morgado, J. (2003). *Processos e Práticas de (re)construção da autonomia curricular*. Tese de Doutoramento. Braga: Universidade do Minho (policopiado).
- Morgado, J. C. & Pacheco, J. A. (2011). Culturas curriculares: subsídios para uma abordagem teórica. In *Do Currículo à Avaliação, da Avaliação ao Currículo*, pp. 42-58. Porto: Porto Editora.
- Pacheco, J. A. (1995). *Da componente nacional às componentes curriculares regionais e locais*. Lisboa: ME.
- Pacheco, J. A. (2006). *Currículo: teoria e praxis*. Porto: Porto Editora.
- Pacheco, J. A. (2007). Estudos curriculares. Para a compreensão crítica da educação. In J. M. Sousa & C. Fino. (orgs.). *A Escola Sob Suspeita*, pp.45-72. Porto: Edições ASA.
- Pacheco, J. A. (2013). *Estudos Curriculares: Génese e Consolidação em Portugal*. Disponível em <http://www.fpce.up.pt/ciie/revistaesc/>, em 23 de junho de 2013.
- Papert, S. (1980). *Mindstorms – Children, Computers, and Powerful Ideas*. New York: Basic Books.
- Papert S. (1991). Situating Constructionism. In I. Harel & S. Papert (Ed.), *Constructionism* (pp. 1-12). Norwood: NJ: Ablex Publishing.
- Papert S. (1993). *The children's machine: Rethinking schools in the age of computer*. New York: Basic Books.
- Papert, S. (2008). *A máquina das crianças: repensando a escola na era da informática*. Porto Alegre: Artmed.
- Pinar, W. (2007). *O que é a teoria curricular?* Porto: Porto Editora.
- Roldão, M. C. (2003). *Diferenciação Curricular Revisitada*. Porto: Porto Editora.
- Ribeiro, L. (1992). A avaliação da aprendizagem no processo de inovação curricular, pp. 71-91. In Lisboa: Universidade Aberta.
- Ribeiro, A. C. (1999). *Desenvolvimento Curricular*. Lisboa: Texto Editora.
- Sousa, J. M. (2007). A inadequação da escola num cenário de transição paradigmática. In J.M. Sousa & C. Fino. (org). *A Escola Sob Suspeita*, pp.15-30. Porto: Edições ASA.
- Sousa, J. M. & Fino, C. (2003). *As TIC abrindo caminho a um novo paradigma educacional*. Acedido em: <http://www3.uma.pt/carlosfino/publicacoes/9.pdf>, a 12 de junho de 2012.
- Sousa, J.M. & Fino, C. (org). (2007). *A Escola Sob Suspeita*. Porto: Asa Editores.
- Stenhouse, L. (1984). *Investigación y desarrollo del curriculum*. Madrid: Morata.
- Thurler, M. G. & Perrenoud, Ph. (1994). *A Escola e a Mudança. Contributos Sociológicos*. Lisboa: Escolar Editora.
- Toffler, A. (1970). *Choque do futuro*. Lisboa: Livros do Brasil.



- Tyler, R. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.
- Young, M. (2010). *Currículo e conhecimento*. Porto: Porto Editora.
- Vygotsky, L. S. (1978). *Mind in Society – The Development of Higher Psychological Processes*. Cambridge: Harvard University Press.
- Zabalza, M. A. (2004). *Diseño y Desarrollo Curricular*. Madrid: Narcea Ediciones.