

Innovation in Teaching Work: A Study of School Thomas Deacon Academy

Maria Lúcia Wochler Pelaes¹
Oswaldo Pelaes Filho²

Abstract

This paper proposes a study of related innovation strategies and teaching methods, in principle, based on the conception of creativity and then focusing, as elucidator aspect of the proposed analysis, a case study of the English school Thomas Deacon Academy. This institution of the Basic Education presents innovative processes in education, related to its teaching methods and its architectural infrastructure, and other aspects of similar relevance to this study, giving teachers and students a different educational environment. The present study aims to investigate the components of the pedagogical work organization context that act as facilitators or as inhibitors of innovation processes in education related to teaching methods based on active teaching methods. The methodology used for this study was the literature and the case study. Bibliographical sources are based on the scientific analysis of books and articles and the case study of institution Thomas Deacon Academy, was based on research developed by digital sources.

Keywords: Innovation; Teaching Strategies; Active Teaching Methods; Thomas Deacon Academy

1 Introduction

This study is scope to discuss certain components of the pedagogical work that act as inhibitors or facilitators of expression of pedagogical innovation generating processes in education. Therefore, it is important to identify what are the factors favorable to the development of innovative potential, recognized as necessary by teachers, opposite the school routine, full of limitations and difficulties that hamper the process of building a favorable environment for creativity and innovation.

This article finds its relevance to the field of Education, because it presents the development of a research that seeks to discuss innovative ways of teaching and learning through the study of methods and institutions that have implemented creative teaching processes, from new possibilities construction of the pedagogical

¹ Maria Lucia Wochler Pelaes: PhD in Education, Art and History of Culture at the University Mackenzie. Pedagogue, Master in Education from USF and graduated in Arts from FAAP. Professor and Coordinator of undergraduate and graduate. It works in education for 22 years. It is currently a researcher for CAPES- Personnel Improvement Coordination of upper- Education by the Mackenzie. Graphic Designer and Visual Artist. E-mail: wpelaes@uol.com.br

² Oswaldo Pelaes Filho: PhD in International Management (ESPM). Civil Engineer (EPHF), Business Administration (Mackenzie), Post Graduate in Financial and Accounting Management (FAAP), Master in Business Administration and Planning (PUC / SP). Professor of disciplines related to the areas of Finance, Accounting and Financial Planning in undergraduate courses in Business Administration and Social Communication from ESPM and in the course of GVPEC the Getulio Vargas Foundation. Finance professor of the graduate course in Design at ESPM. E-mail: oswaldo@espm.br

work.

This research also consolidated by checking which aspects can act as inhibitors or facilitators of expression of pedagogical innovation generating processes in education, trying to identify what are the factors favorable to the development of innovative potential in education, recognized as necessary for the development of a process building an environment conducive to creativity and innovation. Teachers, students and other professionals involved in education recognize the need to apply new teaching methods into the school routine, which are favorable to the expansion of motivation, through a path of building a favorable environment for creativity and innovation within the schools.

One of the reasons for choosing the institution Thomas Deacon Academy as a case study for this research is based on the proposal of the institution itself that announces on its website (<http://www.e4education.co.uk/>) the following sentence: "talented people, creating extraordinary experiences".

2 Criativity And Innovation

The term innovation has performed often on the creative processes. The adjective "creative" is also widely used, is to qualify people - creative students, creative teachers - is to qualify products, most of the time, artistic in nature: a creative design, a creative wall or a creative party. As Martínez (2006, p. 69): "It seems that there is a recognition of the importance of creativity, that it must exist in the school context and that, somehow, there". However, it is understood creativity in this context? What is the point that really has to those who refer to it?

Within the general framework, the concept of creativity has been formulated as a result of theories related to the inventiveness of certain individuals. Concepts related to inspiration and imagination determine what we now identify as creativity.

Creativity has been understood in the narrow sense, such as creating a new external reality from an internal reality (psychic) and, in a broad sense, as the relationship of a living organism to maintain, change and improve the quality of life.

For Novaes (1977):

Creativity is a process that makes one sensitive to the problems, deficiencies, gaps or gaps in knowledge, and leads to identify problems, seek solutions, to speculate or hypothesize, test and re-test these hypotheses, possibly modifying them, and to report results (NOVAES, 1977, p.18).

There is a relationship, in this concept, between the creative process and the solution of problems, reflecting a modern trend of certain currents of psychology, in sustaining that creativity is a special kind of problem-solving.

According Miel (1972), about the need for mastery of techniques to study the creative process:

To discover the nature of the creative process, we need to examine how working people considered creative. [...] New research techniques allow transmit such notice to students of various ages, including young children and students have graduated. This study has become urgent because of the need for creative people in all sectors of human activity (MIEL 1972, p.41-42).

Research on creativity in the educational context, with an emphasis on innovative pedagogical work, have pointed out the teacher, understood as a key element of the pedagogical work organization, as one of the indispensable components to encourage creativity in their students. However, creativity in school is braked by numerous barriers of emotional, social and cultural nature. In addition, the pedagogical work system has elements that contribute to inhibit the creative abilities of the student.

Creativity and innovation are not synonymous words. Creativity involves novelty; however, innovation is the practical realization of the creative process. As Martínez (2006, p. 71), the value of the new that is produced has, in the case of pedagogical work, relates to generate some kind of innovation as the pedagogical practices that enable implement the learning and development processes student.

It is understood innovation as a break with the dominant paradigm, progress in different areas, alternative forms of work to break with the traditional structure. According to Cunha, an innovation is not characterized simply by the use of new technological elements in teaching, "[...] unless they represent new ways of thinking about teaching and learning in an emancipatory perspective" (SOUZA; IGLESIAS; PAZIN FILHO, 2014, p. 285).

When questioned why the need for innovation, we are worrying about something that had never been done before. Thus, Mañas (1993, p. 38) states that "[...] creativity is basically have the idea, but innovation is to practice the idea, put it as effective action, only the idealization does not constitute innovation".

As for the authors Christensen, Horn and Johnson (2012 apud POZZO; CORDEIRO, 2014) in the field of education there is a neuralgic discussion related to issues such as:

[...] education systems have to deliver better results, since, historically, the existing educational models in different countries, some differ. The systematic teaching and learning of the schools, in general, has undergone very few changes. If a character, half of the last century, was placed in a modern-day classroom, I would surely find many similarities with the schools of his time, something that would hardly occur if it were put in a hospital, factory or shop, just say some of the various organizations that have undergone many changes over time (CHRISTENSEN; HORN; JOHNSON, 2012 apud POZZO; CORDEIRO, 2014, p. 6).

In this sense, the school is seen as a highly conservative institution in their pedagogical processes, presenting usually linked innovations their physical and architectural structure and technological resources it employs. In the classroom, the organization of teaching and learning process is still guided by the lecture where the teacher is the agent of teaching and the student is the one who learns passively watching the class and just participating in the construction of knowledge. Thus, we find few innovative teaching strategies and to motivate students to an active and participatory learning.

Perrenoud (1995) points out some factors that induce a teaching job system unfavorable to innovation. One such factor is the weight of the tasks closed, exercises and routines marked by a utilitarian relationship work.

In this sense, Perrenoud (1995) considers a school full of limitations do with little degree of freedom. The rewards or external sanctions, such as notes, competition, promotion, punishment, become conditions of school work. An educational environment that does not enable teachers and students to express "[...] their fields of knowledge and know-how".

For Morin (2000), innovation is associated with the new and unexpected in such a way that:

[...] Is that settled in safely in our theories and ideas, and they have no structure to welcome the new. However the new flows without stopping. We can never predict how it will, but you should expect your arrival, ie , expect the unexpected [...](MORIN, 2000, p. 30).

Seek innovative situations require us to rethink the paradigmatic relations guided by the pedagogical reality of educational institutions. Review theories and ideas that underlie the teaching strategies applied in the classroom is a decisive factor for a process involving innovation as a complex phenomenon of human subjectivity. Innovation takes place from creative actions that are produced in a simultaneous individual subjectivity condition and social subjectivity, which is expressed in the production of "something" that is considered both "new" and "valuable" in a particular field of action human (MARTÍNEZ, 2006).

From this consideration, we can understand the innovation in pedagogical work as a result of creative expression from embodiments that represent some kind of novelty that result in contributions to the learning and development of students.

3 Institution

3.1 History and Features

The Institution Thomas Deacon Academy is an English public school located in Queen's Gardens, Peterborough PE1 2UW, UK, as in figure 01, and started construction in June 2005 and inaugurated in 2007. The cost of school construction was approximately £ 50 million, according to data obtained in <https://blogdaformacao.wordpress.com/tag/escola-futuro> site. English institutions that contributed to its realization were the City of Peterborough, Perkins Engine and Deacon's School Trust, a charity created by

Thomas Deacon in 1721.

Figure 01: Geographical location of the institution.



Source: <http://secondary-schools.findthebest.co.uk/1/18840/Thomas-Deacon-Academy>

According to data collected through the site <http://secondary-schools.findthebest.co.uk>, which compares the performance of schools in the UK, the Thomas Deacon Academy in February 2015 had 2,133 students, aged 11 to 19 years. Each teacher had on average 14 to 18 students in the classroom. Regarding gender, 49.4% were male and 50.6% female. Although the school does not make specific classes for students with special needs, 8.2% of the students had special education needs.

The score of School Thomas Deacon for KS4 Average Overall Point Score as to secondary schools is 511. This index consists of a higher score that compared to the average of 456 for UK schools. This index is indicative of a school that has excellent teachers and students with high performance.

Another measure of performance is the Best 8 GCSE Value Added Measure. This is a measure that represents the overall progress that students have made between the end of Key Stage 2 and at the end of Key Stage 4. Thomas Deacon got Index 1005, with the maximum rate achieved by an institution in the United Kingdom was 1087. With respect to teachers, the average annual salary in February 2015 was £ 37,853, with 180 teachers were dedicated full-time.

3.2 Innovations in Teaching

Thomas Deacon Academy uses the innovative teaching method created by its Director Paul Kelley. This method presents an innovative didactic structure in aspects such as the duration of the classes that can have only eight minutes, the intervals between them are flexible, the bells do not ring, the yoga classes are part of the compulsory curriculum, there is no pleasure just to play and the architecture of the buildings is reminiscent of a shopping center.

The school has about 2,200 students who have an age group ranging from 11 to 19 years and its curriculum is centered on six key areas: Mathematics, Science, Communication, Humanities, Art and Technology. In this school system, innovation and creativity require a new educational vision of the question of school subjects, developed within the multidisciplinary perspectives, interdisciplinary and transdisciplinary.

In this sense, the educational proposals are based on three methodological procedures, which, as Jean Piaget (ALVARENGA et al, p 36- 38.). Can be conceptualized as:

- **Multidisciplinary:** Mutual collaboration of two or more disciplines or areas of knowledge, but without being modified or enriched. lower level of interaction;
- **Interdisciplinary:** Interactions themselves experiencing some reciprocal trade so that there is mutual enrichment. This is a "second level" of cooperation;
- **Transdisciplinary:** Consists of achieving a degree of reciprocity and interactions between specialized research, situating these interactions in a systemic relationship. This is a "superior" stage.

The school culture of Thomas Deacon allows the formation of methodological structures that now are multidisciplinary, now enable interdisciplinary and finally are transdisciplinary in its processes. Thus, it can be said that active teaching methods are, in principle, interdisciplinary, because the design discipline disappears when we visualize the interests of students, that transcend disciplines and cover the different areas of education. Specialization is another key in this format. Students can choose the areas they want to study and thus follow their desires and develop their talents.

3.3 Teaching Methods

Regarding the pedagogical practice of Thomas Deacon, one sees a convergence on issues that are of interest to students, regardless of their age-groups which resembles the Ovide Decroly studies. According to Ferrari (2011), Decroly was among the scholars of education, which in the late nineteenth century to the twentieth century, challenged the school model that existed previously and proposed a different teaching concept. Decroly was in childhood, an unruly student, who did not fit the classroom formalism and devoted himself to experience a school focused on the student and not the teacher, and to prepare people to live in society, rather than simply provide them with knowledge for their professional training. Therefore, Ferrari (2011) states:

Decroly was one of the precursors of the active methods, based on the possibility of the student conduct their own learning and thus learn how to learn. Some of his thoughts are alive and well in the classroom and coincide with pedagogical proposals currently widespread. This is the case of knowledge the idea of globalization - including the so-called global literacy method - and centers of interest (FERRARI, 2011, p 03).

In Thomas Deacon Academy, the interest centers can be found in the composition of "learning groups", organized according to the interest of students. They are structured according to the issues that arise from the discussions in the classroom. Designed based on themes of everyday student motivation in combination

with studies and areas of the school curriculum, become the students' learning centers, which feature a variety of conditions relating to age - groups and years / series.

In Thomas Deacon Academy classes are composed of strands of motivation, themes that bring students of different ages and years / different series. The topic is and aggregator motivating factor. Thus, the school as Libâneo, Oliveira and Toschi (2012):

Would have the role to be cultural and scientific mediator, ie, promoter of cognitive mediation as a tool for the development of thought. The curriculum and school practices should provide the scientific content and mental actions they associados-facing internalization of conceptual bases to deal with reality - without discarding the student's motivation, their subjectivity and contexts and practices of everyday life (LIBÂNEO; OLIVEIRA; TOSCHI, 2012, p 246).

Thomas Deacon Academy is considered by the British government, as one of the largest projects completed as part of the quality public schools building program, by the government. The institution has a different education system, similar to a university, with classes implemented by lectures, seminars and tutorials one- to-one. Instead of having a scale structure with an open plan campus and individual blocks, six different schools are unified under a single canopy roof, as it appears in figure 2, creating a square as an highly flexible internal architecture.

Figure 2 - Inside view of the Institution



Source: www.fosterandpartners.com

Each three-storey school has its own teaching areas and common spaces, as figure 3, including a " Network Study Area" , which it is a flexible space for recreation or collective study , as shown in figure 4. It also has a room glass class, which acts as a "showcase" for each student.

Figure 3 - Facade of the Institution



Source: www.fosterandpartners.com

Figure 4: Center for coexistence



Source: www.fosterandpartners.com

The six volumes are internally connected by a central hall, closed by a partially glazed roof. At the heart of the building, there is a stacked oval volume containing a conference room at ground level and a library above. The project incorporates a number of passive environmental strategies to reduce energy consumption.

More than just an innovative architecture in terms of school physical structure, the design of Thomas Deacon aims to break the traditional notion of how a school should work. This is a school with no playground, no scheduled break time in a cast, without beeps and without registration.

According to Stephen Heppell, British government adviser on the project of modernization of schools, the Thomas Deacon Academy marks the birth of a new model of education and at the same time, the death of the "school factory" which for more than half a century functioned as the fast-food restaurants.

4 The Impact of Innovations in Learning Students

Alan McMurdo, school director, Thomas Deacon institution is considered a model of innovation in education, stating that people have to realize that things develop and evolve so that teaching should follow this process. According McMurdo (ASTHANA, 2007, p.01): "We know more about the brain, how people

work and on effective teaching would be an outrage if you went to the doctor and they were still treating him as they did 40 years ago".

McMurdo examined schools of ideas across the country, creating a teaching method which proposes that school daily, that is, the period that the student spends in school for a day, would provide the student with a different routine from other schools in which students are placed in a tutor group with other students of the same age, and with classes lasting less than or equal to the period of one hour.

In Thomas Deacon Academy's lessons up to 90 minutes mixing different subjects. Also students are added by concerns about the subjects developed, regardless of their respective age - groups. Since this process must be carried out, sometimes when you put up individuals of different age groups interacting in the production of knowledge, either with the same age group, but with different issues going on simultaneously. This "arrangement" in terms of grouping is based on an innovative teaching strategy, from a relational intelligence obtained in active methodologies. Therefore, the authors Souza, Iglesias and Pazin-Filho (2014) state:

With the proposed development of relational intelligence, autonomy and greater responsibility on independent learning, active methodologies prioritize work in groups or teams. For the implementation of group strategies are key: organization, preparation, shared planning and mutually committed to the student, who, as the subject of his apprentice process actively act: thus the objectives, rules, forms of action, the roles, responsibilities, in short the process and the desired product must be explicitly stated and agreed (SOUZA; IGLESIAS; PAZIN-FILHO, 2014, p. 289).

It is possible to infer that the group work provides the development of relational capabilities based on inter- and intra-personal intelligence, allowing the student to discuss a given topic and reflect on their position and their issues and views, based on their own experiences cultural and school.

A more significant change occurred from the method proposed by McMurdo was removing the morning break, explaining that: "There is no formal time break", saying instead, "there are short waiting times during class". Despite several criticisms of teachers and parents, McMurdo is absolutely convinced that the no-break policy is a success, but promised to keep it under review. He insists his radical reform of the traditional school day will provide a "better deal" for students. For example, if a student needs to go to the bathroom he will be allowed to do so. In place of the morning the presence of the record, there will be a swipecard system (card with a chip containing encrypted data) automated, accompanying students each time they enter or leave the building, go to the bathroom or take a class. When a student does not show up in the morning, for example, a computer will alert staff and 10h their parents will receive a phone call.

Students are placed in tutor groups and have one session per day this group. This group includes not only the children of the same age, but students of 11 years are placed with students up to 18 years. The school - which covers 19,000 square meters and was designed to house 2,200 students is divided into six colleges "Each building has a different set of issues, such as science, humanities and arts, and have a classroom with large windows like a 'shop window' for visitors. Each student is placed into one of the groups, which have different colors ties, forty-minute lessons are replaced by others that extend over an hour and a half. In this way, the schedules break and lunch are deleted or decreased in order, initially, not to interrupt the process of each class, and as a second favorable aspect, students can leave at 14:30, early time in relation to other British schools who opt for termination of activities around 16h. Importantly, the afternoon is filled with sports activities for those who choose to stay.

For many, the approach of School Thomas Deacon Academy and pedagogical work of McMurdo director point to significant innovations in school pedagogical relations, as can be seen in the following statement: "We are beginning to see the factory school of death," as Professor Stephen Heppell, an adviser to the government that has been described as a "guru" when it comes to modernizing education. He argued that, between 1950 and 2000, schools were built to handle the baby post-war boom, which signals the emergence and lack of time conditions. But what is happening in Peterborough and by Britain is the birth of a new model of education, anchored in the new theories of learning, said the aide who runs a consulting firm, Heppell.Net.

Final Considerations

One can infer that innovation implemented by Thomas Deacon Academy is succeeding in getting a significant learning for their students. The school's architectural structure is quite innovative in relation to the structures of "box", consisting of a single building, presented by most English and Brazilian schools. The fact abolish the sound signals to regulate the time of classes allows an environment that renews the paradigm of "school-factory" and the production line, all of which are common in the form of educational institutions to the present day. Classes with a period of 90 minutes allow greater chance to build an advanced thinking regarding a proposal, when a shorter period the proposal is generally fragmented and postponed to the next class.

Regarding teaching strategies appear to be active in their "practice" as they allow students to group together, according to their interests, giving them more autonomy and greater motivation, and the opportunity to interact with other age-groups. However, as the elimination of breaks and leisure time, this fact can result in an stress and certain weariness both for teachers and for students. Importantly, the school has no playground, but this aspect of the proposal within the institution it is a no practical use location for this group. Data evaluation systems were not obtained from sources that validate this study, not allowing this kind of analysis.

In general, it is arguable that the Thomas Deacon Academy is an institution that has several innovative features, especially regarding the architectural school structure. His teaching methods allow an active and participative position by the students, but they are no guarantee of innovation in teaching strategies, in the placement of teachers in relation to teaching and learning procedures.

Observações Finais: É muito importante ressaltar que os autores do atual estudo compuseram originalmente este artigo na língua portuguesa e, ao fazerem a tradução para a língua inglesa, assumem a possibilidade de alterações devido ao deslocamento na linguagem e nas questões culturais de expressões e conceitos, principalmente, no que tange às citações de outros autores e às referências indicadas ao final do texto (requests that this stretch is maintained in the version in portuguese).

Concluding Observations: It is very important to note that the authors of the current study originally composed this article in Portuguese and, to make the translation into English, take the possibility of changes due to the shift in language and cultural issues of expressions and concepts, especially with regard to quotes from other authors and referenced to the end of text.

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