

Innovating in the Educational Development of Collective and Individual Potential through Freinetian Thought Concepts in Digital Culture

Helio Oliveira Ferrari

Student, Federal University of Uberlândia
Brazil

Luciano Vieira Lima, Phd

Federal University of Uberlândia
Brazil

Abstract

Innovative methodologies are necessary in education in order to overcome learning difficulties. Some of these difficulties are caused through the disassociation between the educational methods of the current generation. In a society deeply immersed into the digital culture, it becomes necessary that the pedagogical methodologies are themselves associated with digital technologies to evoke the development of student potential. This study demonstrates that through Freinet pedagogy, which is based on a work pedagogy principal and a pedagogical use of technologies, one obtains important results for an innovative education.

Keywords: Digital culture; Freinet Pedagogy; Innovative Methodologies; Technology-based learning

1. Introduction

The development of human potential has always been of concern to educational processes. When considering this in terms of countries, this development is intimately linked to their capacity to generate income through innovative and entrepreneurial practices. When looking from the Brazilian perspective, the newspaper Correia (2016) provides some important data to the discussion: “Although there exists an expressive decline in the indicators associated with innovative practices, there does exist within the country a collective consciousness in the public as well as the private sector that the moment is one for uniting, in order to increase investments in research, development and innovation. (...) There is lack of initiatives that promote the integration of the different players (academic, public sector, private sector)”.

When dealing with the question of academy, Morin (2003) describes that: “Our current university produces, throughout the world, an overly large proportion of specialists in pre-established subjects, therefore artificially delimited, while a large part of social activities, such as the principle of scientific development, demand capable individuals with a more ample angle of vision and at the same time approach the problem in an in-depth manner, adding new progress that goes beyond the historical boundaries of the subjects” (LICHNEROWICZ apud MORIN, 2003, p.13).

It is important to verify how these questions raised in the Correia (2016) are interwoven with the

observation made by Morin (2003), and within this scenario, the existence of a direct relationship between innovations, as a vital necessity for the survival of businesses and education, is observed as a founding process to the existence of innovation.

This relationship is pointed out in the words of Meira (2013): “... every good business is a good school. To this, there are no exceptions. To the point where every collaborator of any type of business, should, at least once a week, make a conscious examination and ask themselves, what has been learnt over the last seven, fourteen, twenty-one days. If, time after time, the answer is very little or almost nothing, perhaps the time has come to look for a place where the future is being built. In almost every location where nothing is learnt, this is not because there are no problems, but because certain types of ruling cognitive blindness in the enterprise prevent you from asking yourself the questions that, when made, would create the learning opportunities for everyone. In those enterprises where nothing is ever learnt, at those times of greater scarcity of knowledge, these are on the route toward the corporate cemetery, where each gravestone has a Company Registration Number on it.”

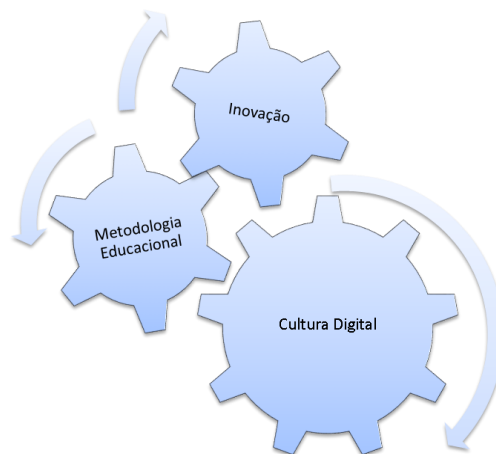


Figure 1 – Connections between the innovation players

In figure 1, one has the idea that the quantity of innovation a society needs is connected to a necessary educational methodology, arising from the digital culture. Therefore, in this work-study, the authors propose the application of the Freinet methodology with freeware digital tools as an innovative solution, which adheres to the desired educational objective, as well as producing students that make use of such tools. A combination of activities both collective and individual is explored for evoking educational potential from the students.

2. Digital Culture

Another issue that emerges, and fundamentally a part of the above discussion, is the immersion of the current society into the digital culture. For the very idea of digital culture, Buzato et al (2013) conceptualize this: “As a set of processes and products of shared significance by people that not only use digital technologies from information and communication on a daily and integral manner, these are used to support and expand a particular mentality tied to post-industrial societies, which privilege collective

participation and work distributed on the network in civic practices, in consumption, in leisure, in learning, in production and knowledge management, in identification and in subjective construction”. As also viewed in the conceptualization of Gil (2014): “Digital culture is a new concept. This arises from the idea that the revolution of digital technologies is, in its essence, cultural. What is being implied here is that the use of digital technology changes behaviour. The full wide ranging use of the internet and free software creates fantastic possibilities for democratizing access to information and knowledge, maximizes the potential for wealth and cultural services, amplifies those values that make up our common repertoire, and therefore, our culture and also empower cultural production, which thus creates new art forms”.

Immersed in this culture, Almeida (1998) highlights that: “The problem is in how to stimulate youths to search out new ways to think, to search and select information, to construct their own way of working with knowledge and to reconstruct it continually, attributing to it new meanings, dictated through their interests and needs. How to awaken in themselves the pleasure and the abilities of writing, the curiosity to search for data, exchange information, encourage in them the desire to enrich their dialogue with knowledge from other cultures and people, to construct visual graphic art, to visit museums, to see the world beyond the walls of their school, or from only the neighbourhood or their country.”

In its essence, little or no change will occur, if we do not face the use of Information and Communication Technologies (ICT’s) as an opportunity to construct education in a different manner. The use of technology in education can perform three functions: “a) to sustain (support) that which is already performed (conservative use); b) to supplement (enrich) that which is already undertaken (reforming use) and, c) to subvert what you do – and introduce a new form of producing things (transformation or if preferred revolutionary use)”. In this manner, it falls upon pedagogy and not technology to be the revolutionary force behind the changes.

3. The WEB 2.0 and the Freinet Tools

The widespread use of digital technologies has brought about great changes in societies across the globe, and with them advancing globalization. The school, which before was an area not so affected by these changes, has started to feel the effects from these technologies in their pedagogical practises. According to Pretto (1996), there exist two possibilities for using technologies in education: instrumentally or as the foundation. If these are used as didactic resources to liven up the class, motivate the student or hold the student’s attention, we are in these cases using these technologies instrumentally. However, in the second possibility these technologies are being used as elements that allow for a new way of being, thinking and acting. “School education will need to be given new conceptualization: it does not make sense anymore to imagine a teacher passing on to their students (liabilities) a large quantity of information (in general out of date), in which they do not have the minimum of interest. Today, information is searched for at the moment it is necessary (just in time), at the right dose (just enough), while we are actively doing those things that are necessary or of our interest (on the job, hands on). Instead of continually going over useless information, school education should aid us in developing the competencies and abilities necessary to live the life we choose for ourselves. Technology is a means, yes. However, this means

frequently obliges us to review our goals and our methods” (CHAVES, 2005).

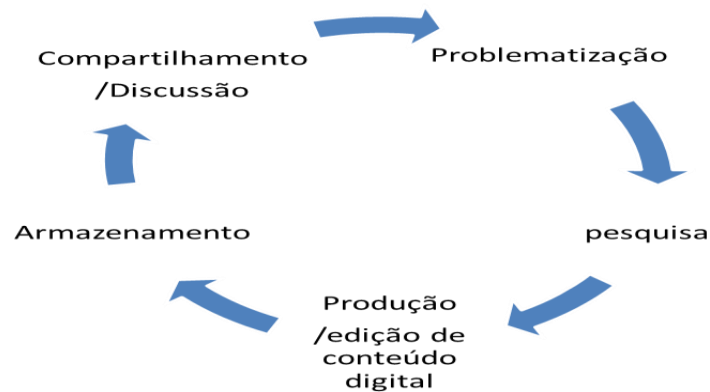


Figure 2. Work flow in digital production

Many a debate has occurred over the education crisis, but few remember that crises are the best opportunities for innovations. If the popular saying “don’t make changes to a winning team” has any credibility, the contrary should also hold sway “make changes to a team that is losing”. Experiences (Ferrari; Vasconcelos and Parreira Junior, 2008), (Ferrari, Lima, 2005) allow for the verification of rewarding results from the use of ICT’s in education, which arise from carrying out projects or digital production projects (Figure 2).

These projects are formed as a means to resolve inquiries (problematization) personal and of student groups. The result is presented using dynamic forms (artistic expression, seminars) in which we have the discussion concerning the generated content, opportunistically using new problematizations. Therefore, in summary, we have the following work production flow: problematizations →research →production/digital content editing →storage on sharing site (Web 2.0) →distribution to websites →presentation of work →collective discussions → new problematizations. It is understood here that the role of education is to help learners to search by themselves or in group for solutions to questions that affect them. Highlighted here also is that for the project to be successful, the guidance/mediation and the intervention through the teacher should be present.

The use of these digital media (images and sound) in the digital environment demanded a high level of expertise on the part of the user in the domain of the software necessary for production. For example, to create a site, the user had to have a notion of programming and skills in editing HTML pages. Another important factor was that the user took on only the passive role of assimilator of the information that came from cyberspace. The attitudes that marked the first generation of internet users became known as Web 1.0. “Web 1.0 was extremely costly to its users; a majority of the services were paid and controlled through licencing, the systems were restricted to who had the means to pay for the transactions online and acquire software for the creation and maintenance of sites. Web 1.0 brought great advances in respect to access of information and to knowledge, however, the philosophy that was behind the World Wide Web concept was always for a space open to all, or be it, without an “owner” or individual that controlled access or published content. (COUTINHO; BOTTENTUIT JUNIOR; 2007:199)”

However, the advance in technology has brought with it a change in scenario, according to the report that says, “However, with the appearance of tools, technologies and systems that make new modalities of

hypertextual production possible, such as blogs and Wikis systems, the structure of the Web have been through a number of modifications. These modifications are concentrated on the need for openness, flexibility and ease of creation, editing and publication of pages inserting the netizens as Web constructors (MANTOVANI, 2006: 329)".

This technological transition is similar to Freinet (2001), having lived at the historical moment of the rise of electricity, radio, newspapers, press, cinema and all other objects associated with technological development, managed to visualize the urgency of a reformulation of the conception surrounding the methods and the techniques used within the school. Then judge these as no longer compatible with the multitude of possibilities that the period of history in which he lived presented them. In this regard, he expands and proposes the innovation of techniques for the organization and operation of what he would consider to be the Modern School. In such, School Press, Free Text, Interschool Correspondence, the School Newspaper, the Mural Journal, Work Plans, the Book of Life, among other techniques, would make up the school context, allowing cooperation to become a means for the social construction of knowledge and communication, while disseminating the knowledge being studied (FREINET, 1996). As "The traditional models, focused upon the transmission of knowledge, were not moulded for the society formed on knowledge, but individual consumers of information with a low critical capacity and conscious participation in its workings. Worse still, it does not prepare the person, the citizen, with the capacity to learn how to learn, or relate to knowledge in an active and dynamic form (FREIRE; LIMA, 2007 p. 37-38)".

In opposition to an idealistic, reproductive proposal, and which undervalues life, Freinet searches, through his pedagogical techniques for the liberation of proletarian children: "We will look to teaching, not what is predicted by the bourgeoisie, included in the methods, contained in the manuals, but that which is the fruit of the desire of the children and can contribute to increasing the specific framework of their own class and own life" (FREINET, 1930, p.409-413).

In this sense, to rethink the school becomes vital. Sometimes the radical transformation is not possible; however, to rethink the academic space in the scope of curricular subjects is made feasible through the disposition of the educator. To adapt the academic space in a manner by which pedagogy is practiced through work requires an aligning between the pedagogical need of the curriculum, or that which the school wants to teach. Incorporating the vital energy of the practicing learners, which is to do, produce, construct, as Freitian thought makes it clear that what is natural for the child, is work.

4. Analysis

Innovation in education is possible from the recognition of the elements that compose the structure and within such, find the windows of opportunity that already exist. Freinet (2001) reformed the whole of his school in order to demonstrate his ideas and pedagogical practices. If it is not possible to act over the whole structure, effective actions can be taken on parts. Such actions can be found in a technical high school, in the training course for the Computer Technician in Maintenance and Computer Support Module, in a subject called "Software Operation Applications and Utilities – SOAU". This set out the following objectives, (a) Identify the types of software that are available for the large as well as small

businesses, (b) Relate and describe software solutions for the office, and operate software utilities, (c) Operate software applications, awakening to the use of informatics in society.

The execution of the objectives for this subject leads to the study of software for Text Editing, Spreadsheets, Databanks and Presentations. Thus, within this universe, the pedagogy of Freinet's work was put forward for the fulfilment of the objectives. By rethinking the content, one notes that in the Presentation Software content, there is an item dedicated to Figures and Animation. This item created the opportunity to bring to the subject digital tools such as digital cameras/camcorders, audio recorders or even smartphones that contemplate an enormous variety of medias through digital convergence.

4.1 Exploring collective potential

To explore the collective development of the students, a challenge was proposed based on producing a documentary, where the subject content was the very school itself. From among the group presentations, one in particular stood out (Figure 3), which established a script for debates. The script established by the group was based on a discussion of the influence of fashion among adolescents and the identification of “adolescent tribal groups” from there point of view. In addition, they gave a presentation of the physical space of the school, highlighting the positive and negative points of the structure, and even set up an interview with the schoolteachers



Figure 3. Vlog of the students – Source: archive of the author

In figure 4, it was put to the students that they produce a tutorial in video form concerning computer assembly. This was scripted and each part of the computer described concerning its function and position on the motherboard and the precautions needed during their assemblage.

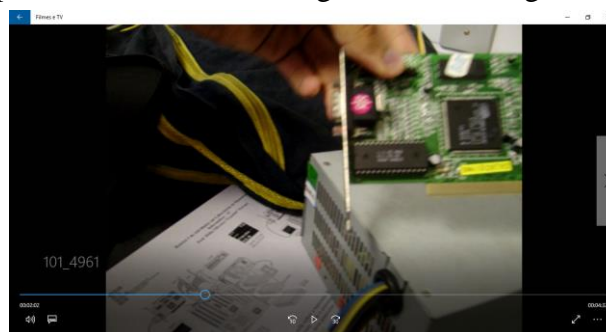


Figure 4. Video tutorial created by the students for assembling a computer – Source: archive of the author

By using the resource of digital cameras, for capturing images, the students also produced a tutorial on paper. Figure 5 exemplifies this production.

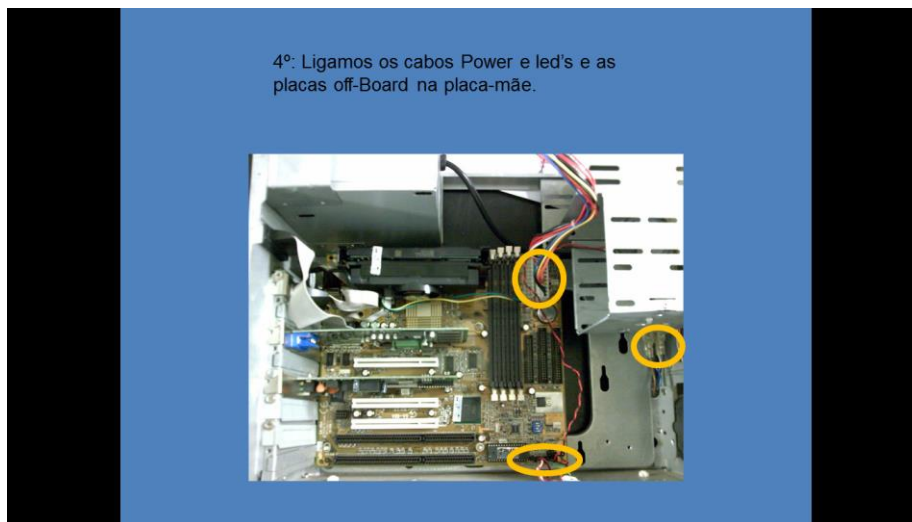


Figure 5. Tutorial concerning the maintenance of computers – Source: archive of the author

4.2 – Exploring individual potential

Another approach is the use of Podcasts. The podcast appeared in 2004 and can be created in tools from Web 2.0, or through sound editing software, such as Audacity.

The sound editor possesses very simple resources, such as Copy, Cut, Paste, Mix; add amplification effects, fade in and out, reverberation, echo, and provides sound management at the equalization level.

The pedagogical proposal was the production of a mix between voice and music. The narration should be created from the production of a free text, and recorded with background music, without going over 1 minute of final production. In figure 6, one notes the excerpts where the student inserts the sound (elevated frequency peaks) on the opening of the song Dream On, from Aerosmith.

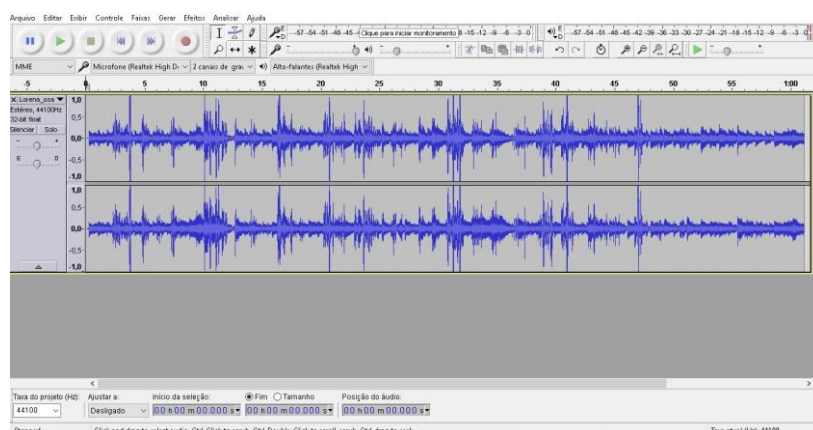


Figure 6. Sound from the work produced on the software Audacity.

Through use of these resources, it is possible to explore a multitude of pedagogical work production possibilities in both authorship and creation of students.

5. Conclusion

The discussion concerning academic knowledge and practice on a day-to-day basis is a long one and can be found in the literature. It is also known that this discussion influences the deficiency in the formation of the human potential of each country. Therefore, this study looks toward demonstrating that it is possible to produce an approximation between theory and practice from reality, innovation and methodology in the classroom.

In this manner, the construction of the link from the programmed content of the propaedeutic disciplines with the expectations and reality of the generation of students is a possibility that arises from the practice of using innovative methodologies, which make adequate use of digital technologies from information and communication.

Technology is an integral and fundamental part of the Freinet methodology. It thus become an innovative perspective in regards to this methodology, where it is continually updated from digital technologies present in this generation of students. These digital technologies are expanded upon by the digital convergence present in mobile devices or desktop type platforms.

The results from this methodology can be explained through the following evaluation: “... *it was the teacher, who asked me to do the best assignment ever, *_*, editing music is great. I learnt how to measure frequency \o/. I learnt how to use Movie Maker, also that excel brushes even your teeth if you want, you need only put in the right formula. (Student)*”.

In Freinetian practice, the evaluation is performed by collectiveness as a contribution through suggestions for improving any work developed. In this work-study, the sharing of projects on the Web was not explored, where interactions can occur with other users, as this could lead to questions of authorship involving high school students.

6. References

- ALMEIDA, Maria Elizabeth Bianconcini de. Da atuação à formação de professores. In: Salto para o futuro: TV e informática na educação. Secretaria de Educação a Distância. Brasília: Ministério da Educação, 1998. 112 p. Série de Estudos Educação a Distância.
- BUZATO, Marcelo El Khouri et al . Remix, mashup, paródia e companhia: por uma taxonomia multidimensional da transtextualidade na cultura digital. Rev. bras. linguist. apl., Belo Horizonte , v. 13, n. 4, p. 1191-1221, Dec. 2013. Available from <http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1984-63982013000400011&lng=en&nrm=iso>. access on 08 Nov. 2016. <http://dx.doi.org/10.1590/S1984-63982013000400011>.
- CHAVES, Eduardo O. C. O Desafio da tecnologia na Educação. 2005. Disponível em http://www.microsoft.com/brasil/educacao/biblioteca/artigos/set_05.msp . Acessado 27/12/2008
- CORREIA, Felipe. Brasil chega à sua pior posição competitiva em 20 anos. Disponível em http://www.fdc.org.br/professoresepesquisa/nucleos/Documents/inovacao/Competitividade/Relat%C3%B3rio_Ranking_Competitividade_WEF_FDC_2016.pdf Acesso em: 30/10/16

- COUTINHO, Clara P, BOTTENTUIT JUNIOR, João B. Blog e Wiki: Os Futuros Professores e as Ferramentas da Web 2.0. In MARCELINO, Maria José ; SILVA, Maria João, org. – “SIIE’2007 : actas do Simpósio Internacional de Informática Educativa, 9, Porto, Portugal, 2007” [CD-ROM]. [Porto : ESE-IPP, 2007]. p. 199-204. Disponível em <http://repositorium.sdum.uminho.pt/handle/1822/7358>. Acessado em 28/12/2008
- MORIN; E. A cabeça bem-feita: repensar a reforma, reformar o pensamento. 8a ed. Rio de Janeiro: Bertrand Brasil, 2003.
- FERRARI, Helio O., VASCONCELOS, Juliene S, PARREIRA JUNIOR, Walteno M.. Projetos Integradores como exercício de Interdisciplinaridade e Avaliação . In: Anais do 6º Seminário Nacional de Educação a Distância da Associação Brasileira de Educação a Distância. (CD-ROM). 2008
- FERRARI, Helio. O., LIMA, Luciano. V. A pedagogia da autonomia e os ambientes de EAD. In: Global Congress in Engineering and Technology Education, 2005, Santos-SP. Engineering and Technology Education Trends, 2005. p. 388-391.
- FREINET, Célestin. As técnicas Freinet da escola moderna.2ª ed. Traduzido por Silva Letra. Lisboa: Editorial Estampa, 1996.
- FREINET, Célestin. La vie à L' école russe. Paris, L'école Émancipée, avr.1930.
- FREINET, Célestin. Para uma escola do povo: guia prático para a organização material, técnica e pedagógica da escola popular. Traduzido por Eduardo Brandão. 2.ed.São Paulo: Martins Fontes, 2001
- FREINET, Célestin. Pedagogia do bom senso. tradução J. Baptista.7. ed. — São Paulo : Martins Fontes, 2004
- FREIRE, Ana P; LIMA, Tatyana. A utilização de comunidades de prática no processo de educação corporativa in: RICARDO, Eleonora J. (org.). Gestão da Educação Corporativa. São Paulo: Pearson Prentice Hall. 2007.
- GIBBONS, Michael et al. The new production of knowledge: the dynamics of science and research in contemporary societies. London: Sage. 1994.
- GIL, Gilberto. Aula Magna na Universidade de São Paulo. São Paulo, 10/08/2004. In: Gil, Gilberto. Diversidade. Disponível em: http://www.gilbertogil.com.br/sec_texto.php?id=195&page=1. Acessado em 17/10/2014
- MANTOVANI, Ana M. Blogs na Educação: Construindo Novos Espaços de Autoria na Prática Pedagógica. Prisma.com. Revista de Ciências da Informação e da Comunicação do CETAC.N.3 Outubro 2006. p. 327-349. Disponível em <http://prisma.cetac.up.pt/artigos/18_ana_margo_mantovani_prisma.php>. Acessado em: 16/10/2007
- MEIRA, S. Novos negócios inovadores de crescimento empreendedor no Brasil. Rio de Janeiro: Casa da Palavra, 2013
- PRETTO, Nelson L. Uma escola sem/com futuro: educação e multimídia. Campinas/SP: Papirus, 1996