Confrontations and dilemmas of the new times: the use of technology in the praxis of the professors of the IFMT-Cuiabá MT BRASIL Campus.

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Summary:

Introduction: there are two main challenges today in the area of the country is the educational qualifications of teachers, and updating of teachers in educational advances. Although apparent duality, are different realities and important for the teaching professional. Objective: to investigate and analyze the process of technological innovation practiced by teachers of the Federal Institute of education, science and technology, Campus Cuiabá-MT Conclusion: teachers have resisted bravely to changes, and even with the technological advances in search of changes of focus from teaching to learning. Thus, it has been found that will not be easy to change this traditional school culture, because these innovations in this regard are slower. However, the students are ready for multimedia, but teachers, in General, no. In some
questions, note that teachers sit down each time the gap in the field of technologies and, in General, try to hold as much as they can, making small concessions, without changing the essential. It was also verified that there's an uneasiness experienced by many teachers, since many are afraid to expose their difficulties in front of students.

**KeyWords:** Education, Technology, Learning.

1. **INTRODUCTION**

With the advent of technology new spaces and possibilities have been created, and the traditional education won new directions. The arrival of computer and other technologies such as the Internet, has brought us new standards of complexity, competitiveness and constant changes in all endeavors. The only way not to get buried by that complexity and the changes is through constant learning and immediate response.

In this "new scene" that have taken hold in education, we came across teachers who do not accept a change in pedagogical attitude and/or are not properly prepared for changes. This lack of flexibility hinders the dissemination of learning and consequently affects the teaching-learning process of the student. To investigate this "new scene" of modern life, chose the Federal Institute of education, science and technology of Mato Grosso, to live a moment of transition, where the educational technologies involves not only ensuring the presence of the media in the classroom, but mainly to ensure their integration into curriculum processes.

For this purpose this study was driven by the following guiding question: technological progress reaches all the business, Government and educational spheres. And if teachers of IFMT Campus London are prepared and qualified to use the tools of technology? If students seeking teaching IFMT Campus London why this presents itself prepared for technological education? If the technology in education is a reality within the institution Campus IFMT Cuiabá-MT? If the technological education of the institution meets the demand of the labour market? And as teachers are inserted in this technological world? In the face of all these investigations has formulated the following three issues: the technology in education, teaching-learning IFMT Campus of Cuiabá, MT comes fulfilling its function, which is to facilitate access to knowledge?

The theme appeared driven by experience, professional authoring, graphic arts and PhD student researching various themes was the one that most caught his attention, because in the literature there are a shortage of articles and materials on the subject. And, as a result of this point of view, sought to provide its contribution to the study and research on the subject noted that it's up to professor sharpen the curiosity of the learner, bringing the student to the intimacy of your thinking. It is at this point that if faced with the
so-called human curiosity, which Paulo Freire describes that before any attempt at discussion of technique, materials, methods for dynamic class so, it is indispensable that the professor find "rested" in knowing that the cornerstone is human curiosity. Is she that makes me ask, know, Act, ask more, recognize.

The present study aimed to investigate and analyze the process of technological innovation practiced by teachers of the Federal Institute of education, science and technology, London. Have specific objectives: will seek to examine the employability of technology in teaching and learning as well as developing instruments of observation and control, giving relevance to the following aspects of academic and professional trajectory; Area of expertise within the institution; The importance of capacity-building in technology insertion; Influence of formal and informal networks of information and Influence educational institutional policy of teaching and research in the process of technological innovation.

2. LITERATURE REVIEW

2.1. THE CRITICAL EDUCATIONAL WORK

2.1.1 General aspects

Second, the overall assumption Zeichner is emphasizing the need for "reflective practice question also the adequacy of educational objectives to different realities which arise, as well as the structures and power relations that oppress and that maintains the status quo. In other words we understand the educational work as a work essentially political. "[...]there is a political aspect; education is politics. She has an educating, I mean: there's a political nature of the educational Act, indisputable.

The critical-reflective teacher practice, in this sense, is not just to their emancipation, but also to his students. When a teacher is able to reflect critically and understand the socio-political significance of his work, he can more easily: [...]"organize, transmit and evaluate the school knowledge seeking to meet the needs of students from the poorest layers of the population".

So we can say that not always teachers, both in the process of initial formation as continued, are aware of their role within an educational project. Continuing education courses will give theoretical-methodological grants to teachers for that search, create critically educational alternatives consistent with their realities and aspirations of modern times.

This awareness of the importance of reflection on your update needs to be constant. However, none of that will advance if there are joint quality training with a will of its own professionals.
2.2 KNOWLEDGE teaching

Teachers' knowledge is understood as a knowledge society. This means that it is not identified with the cognitive character, but also through relationships that he lays down at work, with your personal and professional identity. The work of professor is involved by social relations that constitute ways to act, to communicate, to think, to appropriate scientific and technological development, these relationships participating in the structuring of the educational process.

Knowledge that teachers acquire has meanings in everyday actions. Thus, knowledge of the teachers are built along the practical experiences, teacher education and especially the junction of these two elements. Melo (2002) warns that, currently in teacher training, didactic contents, sociological, psychological, among many other theoretical studies, do not present relationship with everyday teaching activities.

The author questions that often these studies are presented by university professors who have never had contact with reality. In this way, future teachers, and even those already working in the profession, may not give meaning to the theories and researches developed, given the lack of interaction with the reality. Therefore, the future professor to take ownership of the particularities of teaching activities, should learn the craft with those already in the profession. For this author, "the main challenge for training teachers in the coming years will be to open a larger space for the working knowledge in the curriculum".

What shows that the model of Mello is training should establish connection between the theoretical training and professional practice of teachers. Another account held by this author, in the process teaching training, refers the question of disciplines, which according to him the subjects are presented in fragmentary form, without interaction with each other, which gives reduced effect on the training of students.

The teaching career should succeed alternately at least four phases of preparation for the profession, chronologically different and that indicate avenues for acquisition of knowledge and skills. The first stage begins on education before University entrance later comes to initiation into university education, after the beginning of his career in teaching, pursuing continuing education during the practice of the profession. Teachers build knowledge throughout their life, loaded by your professional history, brands and familiar. Thus, during the exercise of the profession work specific knowledge of the areas in which they operate and the ressignificam according to their life stories and with the reality of the students.

There are at least three types of knowledge to be developed in teaching and vocational training required on teaching practice: propositional knowledge (consisting of principles, rules and maxims, often used in training courses); knowledge of particular cases; and knowledge of the ways to apply appropriate rules to cases correctly identified (developed by professor when faced with controversial situations. According to
Zeichner, scientific knowledge of rules and principles and knowledge of teaching cases in detail described and critically analyzed combine to define the base of knowledge for teaching:

(...) The knowledge of how to apply, adapt and, if necessary, invent rules for certain special cases also substantiates this Foundation, formed by General pedagogical knowledge (theories and principles of teaching and learning, students’ knowledge, knowledge of class management), by specific content knowledge (concepts and ideas of an area of knowledge; forms of construction of knowledge in certain area); and pedagogical content knowledge.

Representing a combination of knowledge of the subject matter and knowledge of the teaching, pedagogical content knowledge is appointed as a new kind of knowledge of the area that is developed by professor when trying to teach a particular topic to their students. Is a new knowledge, because it is revised and improved by teaching that makes use of other types of knowledge so that it can be really understood by students.

Assumes a personal elaboration of the teacher to face the process of transforming in teaching the contents learned during its formative process, incorporating the most relevant content: to be taught. Within the category of pedagogical content knowledge, I enclose, for most regularly taught topics in a specific area of knowledge, the most useful representations of such ideas, the most powerful analogies, illustrations, examples, explanations and demonstrations in other words, the ways of representing and formulating the content make it understandable to others, (...) "I include also an understanding of what makes learning of specific topics easy or difficult; the conceptions and preconceptions that students of different ages and playlists bring to the learning situations ".

Cases and methods of teaching cases acquire significance once feature potential as an instrument of development of pedagogical reasoning and of pedagogical content knowledge construction.

(...) The cases about the teaching are important for the development of knowledge structures that enable teachers to recognize new events, understand them and delineate sensitive and educational forms of action (MIZUKAMI, 2000, p. 153).

The process by which teachers can transform knowledge into teaching is termed as pedagogical reasoning process. Covers aspects common to the Act of teaching, such as, understanding, processing, education, evaluation, reflection, new understanding. The previous paragraphs presented a theoretical and methodological reflection of teacher education, this professional commitment with the society was presented as different views of distinguished experts. However, the contemporary reality points a new identity for the professional teaching staff, starting with the "identity of the University professor", which has a new, more modern, dynamic profile, however, has directly affected the company, which hasn't
adjusted changes. ”

The responsibilities and concerns still exist after the teacher is the professional who teaches classes for early childhood education, elementary, high school, technical, professional and higher. On the responsibility of the teacher, Paulo Freire says:

(...). The responsibility of the teacher, that sometimes not realize, is always great. The very nature of his eminently practical trainer, stresses the way performs. Their presence in the classroom is so exemplary that no professor or teacher escapes the judgment is expressed on lack of judgment. The worst judgement is what it considers the teacher an absence in the classroom.

It should be pointed out that the "professor formed to be a teacher" assumes for himself various roles, being confused with father, mother, friend, companion, Advisor. And also a professor, satisfying themselves with empty, without even realizing it, of its unique role and place: being a teacher. Your routine is involved human feelings. In this context, the teacher becomes the main agent in the materialization of educational policies, is an identity that will affect whether or not, in the training of other teachers. What must be said is that much are the reasons for the poor training of teachers, that's because the identity of the University professor has changed and has been changing, and this change has hit directly the society with its pros and its cons.

2.3 the IMPORTANT ART of COMPUTER in EDUCATION

For Freire, who teaches learns to teach and who learn teach learn. The phrase is a true when we are facing students and or ordinary citizens in search of knowledge, and today more and more people are seeking this knowledge, especially about the new technological paradigms in education. Thus, the new curricular parameters increase the use of new technologies, in this context, many teachers are resorting to training courses, to relearn how to teach.

You can tell that this is one of the greatest challenges that teachers are facing, because education has undergone great changes since the Industrial Revolution, with the advancement of technology and the democratization of education, she took new directions. In this context, many educators are forced to relearn how to teach. A good example are the many distance learning courses, which uses the computer as a means of transmission of knowledge, is the shortening of distance between the teacher and the student, i.e. is the shortening of the means (rural-urban).

In this mode of teaching, the teacher must to learn how to deal with Internet tools, which are "in your mouth and mind" of young people and teenagers, who are the Blogs, Posts, MSN, texts, audio messages among others. Another factor, which leads to relearn how to teach, is our own reality, who offers us
every second a new information, just be plugged in, to be updated, either with the gossip of celebrities, or with scientific research, launch of books etc., is the globalization of information. Reason, the spread, and for not saying the cheapening of consumer electronics, present in our daily lives.

That way, the information is almost in real time, and not be updated lets us obsolete and often look like fools in front of students, see, for example, the cell phone, are impressive its many functions, which are very well accepted and used among young people and adolescents.

The cell phone is an extension of the computer, everything, or almost everything. And, is a common accessory to all individuals of different social classes, but what you have to do, the cell phone with the importance of the computer for the teacher? Simple, in the middle of a class, students are constantly plugged into the net, receiving messages and/or passing messages, events that are happening or just happen, arrive first, and then the teachers. Unfortunately, this is the new reality of education. I mean, unfortunately, because although we're provided with theoretical and scientific knowledge, and we deliver our content, we are often taken by surprise by new information, that still, we didn't have access, for lack of time.

The latter consumed, in educational, planning meetings and other activities of compulsory teaching. No, that educational meetings and planning, are not important, however, it is necessary to innovate, bringing to reality of teaching the importance of the use of the computer, how to use this tool to, ethical and everything. It should be noted that many schools prohibit the use of cell phones in the classroom, however, is a warning, whereas it is only during school, between classes, the use, is not prohibitive, what I want to say that this whole load of information that come to the students, they burden us and often discouraged, because there's so much information on the internet , students no longer interested in the school.

In this context, contemporary realizes that the school changed, and that this is no longer the only source of knowing able to ensure the prestige and social standing. Today, although continue to play an important role, she no longer has the monopoly of knowledge, that is, currently, there are already many other equally credible sources of information. These new sources of information are included new technologies that are excellent resources for the construction of knowledge.

The contribution of professor, in this sense, it is of fundamental importance, in order, to innovate, not just in a unilateral communication with students, you have to use creativity, and in particular of multimedia, audiovisuals, so that education is carried out in a cooperative action. The reality is there, let's look at an example of technology that has been excelling in most educational resources, is the remote sensing enables us to extract information, since the data contained in a single image can be used for multi-purpose.
However, to spread the use of this technology, you need to know some techniques and mastering some tools directly connected to computers. Based on this premise, we realize the importance of learning to teach. And teaching is teaching training intrinsic.

2.4 the technology in education

"Technology in education" is broader than "expression Informatics in education", which traditionally favours the use of computers in the classroom, or, more recently, the use of networked computers to connect to the classroom with the outside world to her via the Internet. The expression "technology in education" covers the information technology in education, but not restricted to it. Also includes the use of television, video, and radio (and, why not, the cinema) in the promotion of education.

Finalizes this literature review addressing that technologies are as old as the human species. In fact, at all times, giving rise to more differentiated technologies, each season was marked by technological elements that were important to the survival of the human species. Water, fire, a piece of wood or a bone of an animal were used to kill and drive away animals or other men who could represent a threat.

3. METHODOLOGY

3.1 type of study

The present study has been prepared by means of bibliographical research, quali-quantitative method, exploratory, descriptive and observational with case study. This research consisted in finding theoretical reference for the formulation of theoretical milestone, being required two steps: the first step using the bibliographical research, for the formulation of theoretical milestone. The second step was accomplished through interviews in addition to the continuation of bibliographical research.

Descriptive research sought to observe, register, analyse and correlate facts or phenomena, without interfering in the environment. This descriptive study was designed to investigate whether the employment of technology facilitates or hinders the teaching practice. The qualitative approach is a series of interpretative techniques that seek to describe, decrypt, translate and, somehow, come to terms with meaning, not the frequency of certain phenomena that occur more or less natural in the social world.

3.2 data source

This research developed through a checklist (Semistructured questionnaire), due to the amount of samples (teachers) need to be included data people; time of performance as a teacher; and use of technology.
Inclusion criterion

If adopted as a criterion of inclusion teachers of the Federal Institute of education in Cuiaba MT checking:

- Personal Data;
- Time of performance as a teacher;
- Use of technology.

Exclusion criteria

This research will have been considered other professionals who do not teach at the Federal Institute of education in Cuiaba MT or those that did not present significance to the object of the study.

3.3 Variables of the study

According to Lakatos and Marconi, the variable, classification or measurement is an ordering of the cases into two or more categories entirely inclusive and that mutually exclusive. This study will be considered the following variables: personal data; Time of performance as a teacher; Use of technology.

3.4 data collection

According to Lakatos and Marconi (2012), data collection is considered the stage of research where the application of instruments and the techniques selected for survey data. To this end we shall explain below how the data collection of the research in question.

3.4.1 data collection period

Data collection took place in the year 2010, approximately 180 days with daily 1-hour workload, totaling equivalent for 180 hours, Monday to Friday. 16

3.4.2 technique of data collection

We used the technique of readings to develop the fichamentos and after classes, readings were performed in full, exploratory, analytical and interpretive selective. 16

3.4.3 data collection Instrument

The data collection instrument was designed specifically for this research Checklist. The questions were
elaborated directly, it should be pointed out that this research will use the method of random sampling, i.e. conglomerate focused on part of the population, in this case the IFMT-Campus Cuiabá, MT. The investigation was held on the Campus of the Federal Institute of education, science and technology-IFMT, London, together with teachers, in order to ascertain whether the employment of technology facilitates or hinders the teaching practice.

3.5 ethical aspects

The study complied with the ethical aspects which according to law 9610/98 copyright, published on 19 February 1998, regulates the royalties, provided under this title the copyright and the related to them, namely, the offering of literary, artistic or scientific work to the notice of the public.

4. RESULTS OBTAINED

The first procedure are parsed in the collection of primary sources, that is, the data collection in the field, through questionnaires and interviews, and in the collection of secondary sources, which are withdrawals through surveys conducted in different institutions or publications. At this stage it was important definition of the sample who answered the statistical criteria, so that the results could be generalized.

The first two questions contained in the questionnaire dealing with two variables measurement, repeated and very important with regard to the profile of the interviewee, as well, on the profile of these, age and sex. The variable age presents the age of teachers active in the IFMT. This study is an important variable, Yes, allows you to check the technological evolution in each age group, and assess how this was or is being applied in teaching and learning. Thus, it was found that the IFMT is a professional teacher. It's not too young and inexperienced, the youth appears represented with only 2%; other 8% are in the age group of 60 to 70 years are teachers with extensive experience, developing citizens retire; and there is a balance in other age groups, 20% of teachers are aged 30 to 40 years; 32% of teachers are among the 40 and 50 years of age and 38% in the age group of 50 to 60 years.

With 40%, it can be said that the teacher profession is increasingly legitimized in the universe of the Mato Grosso Federal Institute confirming the feminization of the teaching profession in the capital. Although in smaller percentage, 40%, the number of women in upper course is representative, especially in graduate courses, this indicates that women are able to enter in upper courses, before directed only to men. So, about the questions, we can observe variables that teachers of IFMT are usually middle-aged, with male predominance. So, we can complete the professional experience of teachers of IFMT, is broad and beneficial in terms of knowledge, in particular of the contents taught. However, when it comes to technology, professional experience as a teacher, if coming up in traditionalism and resistance to technological advances.
About the professional experience, the teachers interviewed for this study teach on average for over 14 years. So, it turns out that 30% of the teaching staff have only 10 years of teaching; 16% are between 10 to 20 years of teaching; 26% already have extensive experience in terms of teaching and classroom and 28% have more than 30 years in the classroom.

As for the staff the result demonstrates that 94% of teachers are effective; only 4% are employed, the instability of these is a condition to act in two or even three schools, or engage with private lessons on weekends. What to many is exhausting, however, required to complete pay, however, the overhead of school, ends up generating dissatisfaction and low productivity, generating frustration, which can develop a depression. And, 2% are retired professors engaged in teaching.

In the midst of the competitiveness in the labour market, who have professional experience and qualifications. Increase salary, update and make contacts, are some of the many reasons for the teacher to improve, on this reality, the figures confirm this prominence the importance of specialization to professional teaching, 86% of the teaching staff of IFMT concluded the specialization, it should be pointed out that part of that percentage attended two or more specialization, proving thus the ability in dealing with the differential or the new; Only 14% of teachers did not specialization, with caveats, these soon, have entered the Masters programs, so skip the step of specialization.

About the Masters, showed that 44% of teachers are masters, the numbers prove that continuing education should be a constant in the professional life of the teacher; However, there is a balanced percentage regarding not having entered and/or held a master's degree, 42% of teachers did not do the masters and 14% are in progress. As for the doctorate, note that the percentage of teachers with a doctorate, is much smaller in relation to the master's degree. But, within the sampling work, 70% of teachers are not Doctors, only 16% of the faculty are doctors and other 14% of teachers are attending and/or are doctoral candidates.

When asked about if you teach in other institutions besides the IFMT, 92% of teachers reported teaching only in IFMT and 8% responded that in addition to teaching at IFMT, also teaches at another institution. 75% of the teachers teach in private institutions, as proves the numbers and 25% in other.

When asked about the development of another professional activity other than teaching 68% of respondents said not develop other activities in addition to teaching, only 32% of teachers develops other activities outside of teaching, in general are engineering professionals.

About receiving email, note that the answers were balanced, 32% of respondents receive between 15:30 e-mails a day; 26% receive between 6:15 e-mails a day; 20% receive between 1 and 6 e-mails a day; and only 22% of respondents receive more than 30 emails a day.
Regarding emails answered by respondents, today the email has become an extremely popular communication tool, everyday internet users send billions of messages each other, and the percentage of this research confirms this trend, because 80% of the interviewees respond often your emails and only 20% responding sometimes.

About creating blogs, these have been used by companies such as by professionals as a way to disseminate their ideas will quickly simply and fast. Basically, a blog is a set of long or short messages that are known as POSTs.

These messages are sorted in descending order of the date of posting. Although, many businesses and professionals come using the Blogs to expose their ideas and innovations in various areas of knowledge, it is observed that there is resistance among respondents, therefore, only 20% of this already created a blog with the purpose of disseminating their ideas or research; and 80% of this did not create a blog.

On social networks, it was evident that 52% of teachers participate in any social network, and 48% of teachers did not participate in any social network. When asked about what the social network participates, it was found that part of the teaching staff that is part of the network, participates in two or three social networks. Therefore, 31% of teachers have their Orkut profile; 41% on Facebook; 13%; 7% in Twiter on Badoo; 2% on LinkedIn; 2% in Plaxo; and 4% access social networks professionals, i.e. directed to your specialty. Although, many teachers keep their profiles in different social networks (professionals or relationships), it is observed that 52% of users access sometimes their profiles, and another parcel of 32% never accessing social networks, because they do not have profiles.

For the IM (Instant Messaging). Although very popular, 38% of respondents never sent an instant message, implying that this are not connected in the technological advances of the communication, or by being saddled with planning classes, prefer to use surveys or media; 48% make use of IM sometimes, which is significant, given that they're in parts inside of technological developments; and only 14% of respondents make use of daily, these possibly are on the list of users and make use of the resources of the internet daily.

Finally, it was found that the average time of internet connection, is between 1 and 2 hours, was what answered 44% of respondents; 30% are connected more than 4 hours; 16% said stay between 2 to 4 hours a day on the internet and only 10% is less than 1 hour connected on the internet. The respondents in general access to internet at home/work totaling a percentage of 64% of respondents; 20% access the internet home/work/College; 10% only at home; 4% of the professors just at work and 2% use other resources to access the internet. About carrying out of courses via the internet, only 40% of respondents held a course via the internet; other 60% did not do any course via the internet.
CONCLUSION

The study made it possible to demonstrate that in recent years there have been many changes that have taken place under this scenario by increasing educational featuring increased technology, this widespread and charged by the labour market, which is fierce, both for direct competition between companies in this new scenario, and the confrontation of productive systems on local and international level in the search for a competitive advantage.

The study showed that the technology in education, is not something that happened right now! And Yes throughout human evolution. The proposed study sought to investigate the use of technology by teachers on the Campus of the IFMT-Cuiabá/MT. The results, which are exposed in the previous chapter, gives us the real dimension of technology in education. The case study, which consisted, in one of several ways to perform a search. In General, if constituted in preferred strategy when the "how" and/or "why" are the central questions, having the investigator a little control over the events, and when the focus is in a contemporary phenomenon within some context of real life.

The IFMT institution is a traditional and innovative, however, tabulation and data measurement showed that part of the professors has resisted bravely to changes, in other words, the teacher-focused teaching models still predominating, despite technological advances in search of changes of focus from teaching to learning. All this shows us that it is not easy to change this traditional school culture, that the innovations will be slower.

It was also verified that students are ready for multimedia, teachers generally. In some questions, note that teachers feel each time the gap in the field of technologies and, in General, try to hold as much as they can, making small concessions, without changing the essential. This uneasiness reveals that many teachers are afraid to expose their difficulties in front of students.

Finally, it is concluded that the teachers have realized they need to change, but don't know how to do it and/or are not prepared to experiment with security. It's up to point out that it is necessary to provide conditions for change in teaching staff, and that for that to happen we need to invest in training, because it is not enough to introduce computers and connect them to the internet, hoping only that improve the problems of education.

As a recommendation for future work, it was observed that it is very difficult to maintain motivation in face-to-face courses for teachers and it is known that changes in education depends on more than of new technologies, we educators, administrators and students and the educators who integrate theory and practice and approaching the thinking of the living, which must empower themselves to meet this new demand.
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