THE DESIGNER AS AN EDUCATIONAL Lapidary:

APPROACHES AND THEORIES AS EDUCATIONAL TOOLS mining and polishing that enrich the teaching-learning process

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Educational Sector 5

Continuing Education in General

Classification of Areas of Research in EAD M

Instructional Design

Natureza do Trabalho C Nature of Work C

Modelos de Planejamento Planning Models

Classe 1 Class 1

Scientific Research

Summary

In the article as an Instructional Designer Lapidary: From the Rough Lapidary Content to the Transformation in a precious Course [1] *was presented an overview of the process by which the DI converts the information delivered by the teacher in a course tailored to the audience that wants to achieve , reporting the experience of teaching the course developed by the Center for Distance Education of SENAI-Espírito Santo.*

This article continues the analogy of education as a designer in stone, however, deepening the subject on the importance of knowledge and application of pedagogical approaches and models, essential for the process of teaching and learning in a distance learning course to be enriching.

 Keywords: distance education, pedagogical approaches, educational design, teaching and learning.

1 - Introduction

There stonecutters - responsible for transforming rough stones into precious jewels - that are used as miners and go to the fountain to take away the material to be processed, cut. To extract this material miners using mining techniques, using tools such as pickaxes and sledgehammers, pumping and ventilation systems, among others. This requires knowledge and study. Do not just go to a quarry and keep hitting a pick against the rock.

The same level of knowledge must have the Educational Designer (DE). It has the function to extract the educational theories, found in bibliographic sources and practical experience, tools to mine the raw content and make it a valuable course., Therefore,

> should explore the pedagogical concepts and socio-cultural cognition related to the student, especially with regard to learning and their styles and forms of assessment. Discovered that the guidelines are followed, the second stage is to extract the riches of these theories, making the transposition of these into practice. (Freitas et al, 2011). (Freitas et al, 2011).

But is at the moment of extraction of the educational theories that many designers are "hitting the pick against the rock." They do not know which instrument is best suited for a particular type of extraction and if that action is being performed correctly, without degrading the area, without causing irreversible changes in the primary condition of the stones and precious metals.

By failing to observe the pedagogical assumptions educational designers may end up "passing over" of pedagogical and andragogical learned in training courses. Some of these, by his own experience as a student of the authors, can be considered superficial, it does not offer subsidies or deeper theoretical basis for the preparation of a design course with educational quality.

Some corporate courses even use fear as a tool to capture the attention of the student. The aim to shock can even be achieved, but scenes in which contribute strong or harsh texts so that the student understands the importance of content to their practice, so it feels inserted in a particular process?

We must think about it and understand the importance of pedagogical foundation for the educational designer. Without this, there are great possibilities of mistakes in the choice of models and theories that can not adapt to the needs of specific target audiences. In other cases, this basic education is not taken into account, focusing on project planning only in the aesthetic and technological aspects. But, as alert Kenski (2011), "the central focus of activity in the designer's education is learning people and not on the content and not the technology."

Given this finding, it is important to note that knowledge in teaching to instructional design is a knowledge of the techniques for mining and polishing a stone, and critical success in the exercise of their professional activity.

Since the domain of pedagogical knowledge by the designer focus on education, this article presents the experience of the Integrated Center for Distance Education SESI SENAI IEL-ES and want to contribute to the debate about the work of instructional design, key to student learning courses distance.

2.The lapidary as miners - the importance of the pedagogical training of the DE

Educational Designer is a professional who must have a skilled eye to identify all potential issues in teaching and technology, in order to turn them into a valuable course. He makes the appropriateness of content to digital or printed media, always seeking an appropriate educational solution to their students.

However, even among the professionals questions arise regarding the scope and focus of this occupation. Many of them believe that the concern with the look of the course is the main function of a DE This is done mainly by the use of the word designer, which refers to those who deal with the aesthetic, as product designers or interior, for example.

This "confusion" is illuminating in that it presents two important points: the form and functionality. A content beautiful, filled with illustrations, videos and simulations makes all the difference in student learning. But if there is no respect for the practical purpose of learning, all the visual enrichment collapses.

> But this professional throughout his career bias pervades an aesthetic and a technical bias, and often a professional with multiple formations, or as indicated by most professionals, being a professional who can combine this knowledge through the formation of a team multidisciplinary. (Cleir, 2010) (Cleir, 2010)

The mining tool for the DE, his primary working tool is the pedagogy / andragogy, patterns and approaches. Knowing how to extract, combine and apply the theories to the target audience of your project ensures a quality learning.

Both the Ministry of Labour, through the CBO (Brazilian Classification of Occupations), called in March 2008 the occupation of Educational Designer and their families, along with other education professionals.

Family Code	Title
2394	Developers, evaluators and supervisors of education
2394-05 –Pedagogical Coordinator	
2394-10 –Guidance Counselor	
2394-15 – Pedagogue	
2394-20 –Professor of technical and audiovisual resources	
2394-25 –Psychoeducator	

A brief description of this profession includes aspects such as implementation, evaluation, coordination and planning of educational projects / instructional methods in the classroom teaching and / or distance, applying methodologies and techniques to facilitate the process of teaching and learning.

Given this list of activities, weight and amount of activity that go beyond the teaching area is quite noticeable. But the importance of this focus is really on the practice of developing a distance learning course and how your project is engineered to encompass the entire multidisciplinary necessary to achieve the larger goal, which is student learning.

One of which has no such training or educational foundations will have difficulties in writing a script, for example, and not look to the goal that he should reach multimedia capability for building student knowledge. You can not check if the approach is consistent with the age group of students if the content passes through the pedagogical issues raised in course design and is in line with customer requests. In addition to not notice if the model and the methodologies chosen dialogue with the content and format of the course.

It is a project that should be accompanied with an educational look, aiming at improving technical and aesthetic.

For this reason, the owner must have multiple training, and the support of a team of several fields of knowledge that gives you support, complement the design ideas and run educational course.

> For example, if the material is being built by a team from the computer, probably the technique will take a higher priority than the discussions about the pedagogical practices to be implemented and integrated into the design to the material. "(BEHAR , 2009)

Thus, the designer must go through the whole educational process, from the extraction of the theories and pedagogical approaches, to the process of stoning, which is working the raw content and enrich it with visual and technical resources in order to transform it into a jewel, a valuable course.

According to the experience gained from this process on course, the Center for Integrated Distance Education SESI SENAI IEL of Espírito Santo, points out some cutting tools and mining pedagogical foundations he thinks is extremely important for the formation of a DE

3.The mining and cutting tools - essential educational foundation for a designer education

3.1 Learning Styles

Before begin to mine the diamond cutter go to prepare himself. Study the terrain as a whole to choose the tools that will help him make, the better, the preciousness of a rough stone. In the case of DE the mining will be THE best approaches best suited to assist and enrich the teaching-learning process of a particular course.

As the DE is "stepping" in the field of education and its variables, to understand how this process occurs is what should guide all the next steps in developing a distance learning course, According to Moura,

> Analyzing the etymological point of view teaching and learning are two categories with their own characteristics: education can be regarded as a movement led and coordinated by a professional subject - teaching being - able to intervene, mediate the situation in order to socialize competently 'knowledge' produced historically by society. Learning is the result of that mediation, resulting in the appropriation by learners subject of 'knowledge', knowledge, skills, attitudes that once internalized will be socialized. "(Moura, 2001).

Knowing that there are different ways of teaching and learning is the kick off the project to build the course. It is from this point that the educational solutions will be weighed. Freire (1997) explains this correlation by showing that the man only began teaching when he discovered that he could learn. Has developed the ability to learn that he found himself able to teach.

Known terrain, it is time for the designer to choose the educational tools best suited for the extraction of pedagogical approaches that will enhance this process.

One important tool that should always be at hand, it is the remark about learning styles. This instrument is intended to break the hermetic crust of the content, pulling him different ways to learn the same thing.

This means that the DE should understand that people have different learning styles. No one person like another. The preferences of each learner in order to receive and / or process information are not exactly the same, but this does not mean they are better or worse.

Felder & Soloman (2006) apud DAYS (2006, p.19) state that:

> "Learning styles can be defined as the internal characteristics or preferences of individual learners in order to receive and / or process information. These styles are not always aware, also exert significant influence on the strategies used to learning. "(Dias, 2006

In a classroom presence, usually, the teacher clearly identifies that there are students who learn at different times, and to find that what is taught is not learned by a student, then changes the strategy, creates a new way of presenting the information to meet that particular learner.

In distance education, instructional designers do not "know" their students personally, but that's why this new way of teaching should not be taken into account. On the contrary, the DE must anticipate difficulties that may occur and try to hit all styles when designing education solutions for a particular course.

With regard to cognition, there are people who are visual learn by seeing step-by-step, calmly reading, analyzing the facts. Learn individually.. Another group learns of a comprehensive, contextualized, exchanging experiences and interaction with others, for example. Some need to hear, read others, and still have people that need doing (kinesthetic). For this reason the tool learning styles must be known and applied in the preparation of distance learning courses.

The designers of the educational Nead SESI SENAI IEL Espírito Santo use this instrument, breaking content and fracturing it into equal parts in essence but different in its exterior. That is, in many ways has the course content to meet the variety of learning styles. Provides content in 'animated handouts', with which the student interacts, clicks, pages passes. This kind of material on target kinesthetic. that needs to go. They are also available in pdf format with illustrations and diagrams to be printed and analyzed, with all the audio content of lectures and collaborative activities such as group work.

3.2 Andragogy

Another tool that assists the teaching-learning is andragogy (adult education), which serves to "dig", making a more profound for adult audiences, by creating teaching methods specific to this age group, they can easily disperse.

Kelvin Miller apud Cavalcanti (1999) states that:

> adult learners retain only 10% of what they hear after 72 hours. However will be able to remember 85% of what they hear, see and do, after the same period. He noted that the information most memorable are those received in the first 15 minutes of a class or lecture (Cavalcanti 1999).

The courses designed for Nead Sesi Senai IEL-ES have videos, animations and text, and small duration, and constant care to keep the motivated adult learner.

It is a common presentation at the start of classes, a feature to draw the attention of students. One example is the case with the Administrative Writing course, produced in 2011. In class on office, the first action of the student is reading an interactive photo-novel with an intriguing plot, depicting the use of this document. And that strategy is essential to arouse student interest.

3.3 Evaluation

An instrument to verify that the stoning of the content was well done is the evaluation. And, to assess, it is important that the educational designer has in mind:

> In making an assessment, an assessor must always bear in mind some questions such as: what will be the focus or what the focus of the evaluation, what the goals and functions of assessment, that assessment methodology will be used, should be provided for those who the results. (DEPRESBITERIS, 2004)

Hoffmann (1998) gives the action evaluative mediation function to be used to encourage students to reorganize their knowledge.

Given this statement, DE, to suggest the evaluation activities, should know their different functions: DIAGNOSIS, formative and summative [2.]

This knowledge will support development, suggestions and analysis of assessment tools, to become a tool in the service of teaching and learning.

The course must meet the criteria for which will be evaluated, and at the end of the evaluation should receive feedback, and the difficulty demonstrating how to overcome them.

4. Final Thoughts

Anyone who enjoys a beautiful jewel, admire its luster, its proportions, the symmetry of its facets and forget that it comes originally from a rough stone and polished carefully panned hard.

Likewise, many DE produce a course with aesthetic look, wondering how the visuals will be used and do not take into account the hard work of mining and polishing techniques and teaching tools / andragogical that the course becomes precious.

The DE, in essence, is a professional education and, as such, needs to master pedagogical knowledge and aliyah it to knowledge in the field of computer science, design, fine arts, and all his cultural background and experience, for the design of the course is a success.

The focus should be on education. Pedagogical approaches and theories are tools that we need to use at all stages of construction design of the course, so that the raw content is cut correctly.

Without it, the designer of education may even develop a beautiful and brilliant way, but it would be like producing an inferior material to copy a quality as using an imitation rather than a diamond.

Thus, pedagogical knowledge will give the conditions for meaningful learning to use the interdisciplinarity, contextualization of the content to give meaning to learning activities that encourage problem solving and evaluation which is not only the result but the manner in which the student has developed reasoning, enhancing their knowledge.

 A quality course is one that achieves its goals, especially the teaching. The aesthetic part adds value and helps give the brightness that the course needs to

be meaningful to make a precious student learning, but it should stimulate creativity, initiative, autonomy, responsibility and critical sense with different expression capabilities student.

FREITAS [1,] Dayan et al. The **instructional designer as a lapidary: the stoning of the raw content for processing into a valuable course.** CIAED [the] In16, 2010 Foz do Iguacu, ABED.

[2] DESPREBITERIS, Leah; TAVARES, Marialva Rossi. **Diversify need: Tools and Techniques of Evaluation of Learning**. São Paulo: Senac, 2009.

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