

# THE INSTRUCTIONAL DESIGN AS A LAPIDARY: FROM STONING CONTENT TO GROSS TRANSFORMATION IN A PRECIOUS COURSE

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## Category (C)

Methods and technologies

## Educational Sector (5)

Continued Education in General

## Nature of the Work (B)

Description of project in ongoing

## Class (2)

Innovative Experience

## Abstract

*Just as the lapidary, the Instructional Designer (ID) has in their hands a raw material, unfinished: the content that needs to be worked in order to bring out all the brightness that a material teaching must have to attend the conditions of teaching and learning of a going the distance.*

*Like the craftsman has the skill to see beautiful hidden gems in the rough stone, the ID should have a skilled eye to identify in the subject all the pedagogical and technological, in order to transform it into a valuable course.*

*This article aims to demonstrate the process by which the ID converts the information delivered by the teacher in a course tailored to the audience to be reached. This will be reported to the travel experience of teaching "Change of Habit: behaviors that must be unlearned by the teacher," developed by the Center for Distance Education of SENAI-ES (Institute of Industrial Learning of State of Espírito Santo, Brazil).*

**Key-words:** distance education, didacticism, instructional designer, teaching and learning.

## **1. The raw content and impurities that hides the precious stone - difficulties of ID to attend the demands of a course**

### **1.1 The client**

*A lapidary is the craftsman who hone the rough stones and gives the brightness that makes them precious, he exposes the gem, that is shown by the full splendor of the stones. (GONÇALVES, 1926).*

The stonecutters produce jewelry at the request of customers. So they adapt many types of changes in the cutting, whether in the shape or the number of facets, for the satisfaction of those who search them for a polished and shiny precious stone.

Instructional Designer must also attend the needs of his clients, designing programs that fit the profile of the target audience.

This custom work mainly requires the ability to know deeply the segment and understand their difficulties and limitations and propose educational solutions able to provide students a rich and important learning experience.

The staff of Instructional Designers at the Center for Distance Education of SENAI Espírito Santo received a request from the Management of Technology and Education of the institution on a course to be offered to all teachers of the SENAI. By studying this demand, they identified some difficulties related to teachers who were trained, such as:

- Resistance to the content, since they had already done several didacticism courses that did not have the effect expected by the institution in everyday practice in the classroom;
- Teachers don't have a "reading habit" because they are technical professionals, who even had difficulty in leaving the field of exact science to receive a training more "humanized";
- Lack of pedagogical preparation;
- Little habit of using and / or diversify the use of teaching resources in the classroom;

- Few knowledge about new web tools for use in the classroom, moving away from the reality of the students;
- Many students were SENAI students and reproduce the old way technicality that they were taught;
- Lack of time. There was no time to study because the teacher's jobs makes them so busy. So they would study at home, in his spare time.

The challenge, then, were many: to develop a course for adults who instigate the desire to hold a further qualification in teaching, using so many types of media, specially audiovisual, to resolve the difficult to read long texts, transforming the content into an attractive product, with high levels of reflective and innovative way to present the new features and technologies for students could use in their daily practice. And the main: teaching didacticism being didactical.

In this article will be present the resolutions found by the team to overcome these barriers.

## **1.2 The cleavage**

Before to begin the process of cutting is done the cleavage, that is to remove the crust that covers the stone, eliminating in this way, any impurity or defect.

One of the first actions of the Instructional Designer when faced with the delivery of gross content is to clean the excess. He becomes responsible for proposing changes, make suggestions of focus, ultimately conduct the work of responsible for the contents, selecting in the content featured what is or is not in line with the goal that the customer wants the audience reach of the course.

The ID performs this function of "content divide" to analyses in detail the characteristics of people who will make the course, investigates difficulties and limitations and studying proposals to develop the material with a focus on those characteristics and needs. In other words, he knows the target and how to achieve it.

## **2. Digging new features - extracting the wealth of educational theories**

To find the target, the Instructional Designer must explore the pedagogical, social and cultural concepts related to student's cognition, specially related to learning and their styles and forms of assessment.

Discovered the guidelines that will be followed, the second step is to extract the best of these theories, making the implementation of these for practice.

For the course of didacticism, the staff of Senai-ES appealed to the theory of meaningful learning, which permeated all stages of the project. According Ausubel (1980), so the learning is meaningful in a given social situation it is necessary that new knowledge relate significantly with the ideas and information already existing in the cognitive structure of students. Therefore, the course proposes to develop activities that bring meaning to the learner. Thus, we can say that there's no learning, but person who learn with all their uniqueness and in their specific environment.

According to Luckesi (1995), the current practice of school evaluation has been undemocratic, discouraging students to stay in school. Aiming to minimize this mishap, the course has been designed with a view to improving the practice of evaluation, thus including the different ways to evaluate. Among them, the diagnostic evaluation, to diagnose the level of knowledge of student, the training, which is to understand whether the proposed objectives are being achieved, and summative, to assign a score based on the knowledge acquired over course.

However, the study focuses on different ways of learning. People learn differently and they see the world as their perception, explains Filatro (2008). In the beginning, we see the world through the sensations to hear, feel, see, smell and taste. The second moment, through perception, we give meaning to sensations, and finally, in the cognitive level, we memorize, compare, associate, classify, interpret, judge, understand the phenomena.

As schools treat everyone equally, we forget those who, unlike others, they learn in other rhythms.

[...] Once we recognize that children at different ages or stages have different needs, respond to different forms of cultural information and

assimilate content with different motivational and cognitive structures, the types of educational systems designed by us must take these factors into account." (GARDNER, 1994, page 58).

We can realize that models of education massify the teaching-learning process, and that more research in cognitive advance, the lessons, the content, the methodologies are always tight, even so that everyone learns the same way and at the same intensity.

When planning the course, the ID who knows the dimensions of learning and teaching style, makes the relationship between them, as if the course is not in tune with the style of learning, it can cause great disinterest.

Regarding the importance of including teaching resources in education, we resort to Gasparini (2005), who believes that conventional teaching techniques associated with new technologies influence the process of teaching and learning in distance mode.

Both can be developed using techniques conventional education, which are those that exist for a long time and are of great importance to the teaching learning process in person, as if using new technologies, represented by the recent use of computer, informatics, telematics, distance education. Both conventional techniques as new technologies can be worked with a view to pedagogical mediation, since both are active processes that allow contact between the content and pupils in achieving learning (GASPARIN, 2005 p. 110).

Finally, as this is a course aimed at adults, the team planned specific methods, which are more efficient ways to teach the public. Starting with some insights into adulthood, it was believed to take into account the practical demonstration of and enthusiasm for learning, letting that knowledge will make a difference in day-to-day classroom, it is crucial to the process teaching and learning.

### **3. Stoning: the process of processing the content to emphasize its pedagogic qualities**

The cutting process consists of the processing of gems from its raw state, in order to "raise all the optical qualities that constitute its essential charm, a higher degree of perfection." (METTA, 1960)

After the process of 'content divide' and the mining of educational theories, comes the moment of processing, in which the instructional designer will adjust the raw crude delivered the teacher, and worked for both, the format of the target audience, sewing up the whole theoretical basis for this purpose.

To accomplish this adjustment, ID staff of Center for Distance Education of SENAI-ES opted to use a metaphor inspired by social network “Twitter”, a microblog where people communicate by messages of up to 140 characters.

Using the metaphor of social network in the background of the course enabled the creation of a dynamic and playful, with objectivity in the exchange of information, which perfectly fits the profile of the target audience: teachers who do not have time to immerse in a more complex plot and did not have much reading habit.

From metaphor, the lack of knowledge about new Internet tools for student-teachers was also resolved because the social network served as a channel to present the full range of resources that the web can offer. The links that are used on Twitter to share knowledge and information, were used as part of the course in which students learn by contacting media like websites, blogs, youtube, flickr, issu.

To make lessons more interesting it employed some teaching resources known by most teachers as videos, sounds, illustrations, comics, cartoons, fairy tales, graphics, and many others included in this variety of media.

The tools of the Internet were used for the student to realize in practice it is possible to diversify the possibilities of teaching a particular content to include all different learning styles.

In fact, the course was designed as a great laboratory for the student to experiment the didacticism and could transfer this experience to their practice in the classroom.

Because of the resistance to the content and the desire to provide students a learning taking as reference meaningful learning theory, was created a character that represents a teacher at SENAI which participates in the course of teaching with the class.

This fictional student who participates in the same activities of the class and also understands from schools, reports through posts (sentences of 140 characters in the social network) their experiences in relation to his profession, always alluding to the theme worked in class.

Use this character was aimed at instigating students and discuss some questions that might cross the minds of students, teachers, getting them to identify with the situations worked on the course and relate them with their day-to-day at school.

The teacher is a surly guy who does not believe in didacticism teaching and thinks that does not need to change his professional attitude. He will gradually changing his position at the moment he realizes the transformation that the theory learned in the training gives to his teaching practice. And this is the posture that SENAI expects of its employees.

In the pilot class, the main character has caused many students to identify with the messages of the messages and feel included as subjects in this process, were able to reflect and even change some behaviors they practiced in the profession.

These behaviors, in fact, in this case, is a technicality inheritance left by his former teachers, since many of the students studied in SENAI when the goal of the educational institution was directed only to the training of manpower. Today, some of them continue playing habits in the classroom the same way they were taught. For this reason, the course name was chosen *Change of habit*: behaviors that must be unlearned by the teacher. Therefore, we expect students to revise their positions as teachers.



#### **4. Finished jewelry: results obtained by the designer, lapidary in transforming raw content into a valuable course**

With the improvement of content, the course was finished precious. And this jewel is in the delivery to the customer that the Instructional Designer will see if it is so bright in the hands of those who entrusted him the job, in other words, if it attended completely all the needs identified in the first case of stoning. To verify the effectiveness of current produced, tests were performed with a pilot class.

In fact, it was noticed that there was a good reception given the activities developed by the ID, for example the presentation of the theory of different learning styles. Like most of the audience is adult men, was inserted into the blog an example of a goal in a soccer game narrated by a radio announcer, a newspaper report which described the goal, a video and tactical schemes to demonstrate many ways to attend many forms of learning.

Another feature that had great acceptance was a comic book. The Instructional Designer turned a long text, five pages in an activity that transmitted through play the proposed content.

This diversity of types of media and the variety of genres and text types such as videos, music, illustrations were also well accepted.

The form of surf the web for links on many sites made the presentation of content more enjoyable, leaving the act of studying the activities that students do in their leisure time, like browsing the Internet.

A new way of using the forum tool, delivering small group collaborative activities that need discussion, but that should not remain only within the exhibition of ideas, in other words, they were content with that produced, became a form of assessment successful.

#### **5. Closing Remarks**

The analogy of the instructional designer as a stonecutter didactically was used to demonstrate the steps that professional must obey to develop a valuable distance learning course.

The experience of the course of didacticism "Change of habit: behaviors that must be unlearned by the teacher", prepared by staff ID of the Center for Distance Education of SENAI Espirito Santo, served as background for

presenting a case in which the role of the Instructional Designer was decisive for the success in fulfill the request.

The process of cutting performed by the team attended customer expectations by combining the educational theories panned the real needs of the target audience, providing teachers who underwent training in didactic significant moments of learning by transforming it into a leisure activity, a real jewelry.

## 6. References

AUSUBEL, D. P. **Psicologia educacional**. Rio de Janeiro: Interamericana, 1980.

CAVALCANTI, Roberto de Albuquerque. **Andragogia: a aprendizagem nos adultos**. Revista de Clínica Cirúrgica da Paraíba Nº 6, Ano 4, Jul.1999. Disponível em <http://www.ccs.ufpb.br/depcir/andrag.html>. Acesso em: 11 abr. 2010.

FILATRO, Andrea. **As teorias pedagógicas fundamentais em EAD**. In: LITTO, Fredric M.; FORMIGA, Marcos (Orgs.). Educação a distância: o Estado da Arte. São Paulo: Pearson Education do Brasil, 2008.

GARDNER, Howard. **A criança pré-escolar: como pensa e como a escola pode ensiná-la**. Porto Alegre: Artes Médicas, 1994.

GASPARIN, J. L. **Uma Didática para a Pedagogia Histórico-Crítica**. 3 ed. Rev. Campinas, SP: Autores Associados, 2005.

GONÇALVES, J. Cardoso. **O Lapidario del Rei D. Alfonso X el Sabio: estudo deste manuscrito iluminado do século XIII**. S. l: s.n,1926.

LUCKESI, Cipriano Carlos. **Avaliação da aprendizagem escolar**. São Paulo: Cortez, 1995.

MOL, Adriana Aguiar; DIAS, Johanna Odebrecht. **Estudo da valorização das gemas através do design de lapidação**. In: 8º Congresso Brasileiro de Pesquisa e Desenvolvimento em Design, 2008, São Paulo. Anais do congresso. São Paulo: Aend Brasil. Disponível em: <http://www.modavestuario.com/296designdelapidacao.pdf>. Acesso em: 5 abr. 2010.