# AN EXPERIENCE REPORT ABOUT THE USE OF DOTPROJECT - PROJECT MANAGEMENT SOFTWARE - IN THE PRODUCTION OF MULTIMEDIA MATERIALS FOR DISTANCE EDUCATION (DE)

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### **SUMMARY**

The increase of DE created new roles and media diversification for the teaching and learning process. This article presents an experience of project management, used in the production of multimedia materials for distance education. It was necessary to structure the processes, human resources, defining the offered products and than use the best practice of project management in the web open source dotProject system, with some adaptations for the context. There are presented as results, the difficulties and successes obtained based in the trio: people, processes and technologies.

Key-words: dotProject; Project Management; Distance Education; Production of Multimedia Material;

# 1. INTRODUCTION

The Distance Education modality - DE - made the Teaching Institutions adept themselves to new processes that are necessary to establish distance courses. Among them, we can name: physical and technological infrastructure, staff development, creation of institutional materials and new procedures.

Several institutional materials may be used in the distance modality. We can name: the pressed material, the Virtual Learning Environment - VLE - and the available material

in CD/DVD. All of them require the development of projects for the planning and elaboration.

A project can thus be defined in terms of its distinctive characteristics - a project is a temporary endeavor undertaken to create a unique product or service [1].

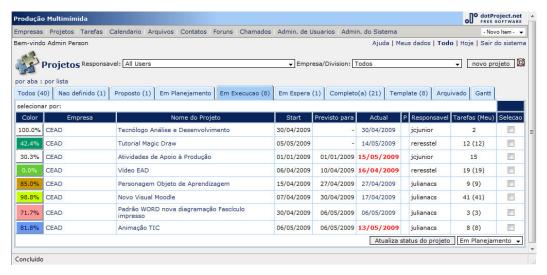
Due to the characteristics above, all the production of multimedia material demand, that involves the production of audio and video, illustration, layout and animation are considered a project.

The results of a project are unsure by nature, considering that they refer to a product or a new service. So, a critic aspect for the project success is its effective management.

Project Management is the application of knowledge, skills, tools and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project [1].

Looking for a free software that attends the demands related to project management, it was discovered the dotProject.

The dotProject (Picture 1) is a web system that has several resources that allow the project management. It is shared under the GNU-GPL license and has its development maintained, mostly, by the Australian company Saki Computers (http://www.saki.com.au) that works keeping extra servicers related to it, as customization, tech support among others.



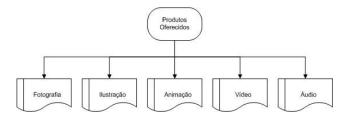
Picture 1 – dotProject - www.dotproject.net

# 2. MULTIMEDIA PRODUCTION TEAM

The development of multimedia materials to help the teaching-learning process is responsibility of multimedia production team, beginning by instructional designer and teachers planning.

### 2.1. OFFERED PRODUCTS

To standardize the processes, it was defined a group of products related to distance education. They are: photograph, illustration, video, audio, animation and layout (Picture 1).



Picture 1 – Multimedia production products

The definition of products that the multimedia production team offers, allowed the development of requirement forms and specific procedures. Besides, it contributed to the improvement of the communication between requester and team.

## 2.2.HUMAN RESOURCES

Based on the products specificities, it was performed a division of the human resources in two teams: the Design and the Audio and Video Production. The division of responsibilities was performed according to Board 1.

|                                 | Illustration |
|---------------------------------|--------------|
| Design Team                     | Layout       |
|                                 | Animation    |
| Audio and Video Production Team | Audio        |
| Table and Table and Touri       | Video        |

Board 1 – Products division by team.

By this division, it was possible to qualify the team in a more specific way, therefore increasing the productivity.

## 2.3. INFORMATION FLOW

Based on the PMBOK (Guide of the group of Knowledges in Project Management developed by Project Management Institute - PMI) practices, it was developed an adaptation that resulted in 6 (six) processes (Board 2) that will compose a macro view of the production of multimedia materials.

| Process                | Responsible            |
|------------------------|------------------------|
| Initiation             | Instructional Designer |
| Planning               | Multimedia Producer    |
| Execution              | Team Leader            |
| Monitoring and Control | Multimedia Producer    |
|                        | CEAD Team              |
| Evaluation             | Instructional Designer |
|                        | Multimedia Producer    |
| Closure                | Multimedia Producer    |

Board 2 – Responsibility by process.

## 2.3.1. INITIATION PROCESS

From the Activities Map (Picture 2), where it defines the disciplines purposes, the instructional designer and the teacher, discuss about the type of media that may be used to make the teaching and learning process easier.

| S   | Tema principal | Subtemas | Objetivos<br>específicos | Atividades | T | Р | Recurso do<br>Moodle | Grau de<br>Dificuldade* | Nota | % | Observações |
|-----|----------------|----------|--------------------------|------------|---|---|----------------------|-------------------------|------|---|-------------|
|     |                |          |                          |            |   |   |                      |                         |      |   |             |
| 0.4 |                |          |                          |            |   |   |                      |                         |      |   |             |
| 01  |                |          |                          |            |   |   |                      |                         |      |   |             |
|     |                |          |                          |            |   |   |                      |                         |      |   |             |
|     |                |          |                          |            |   |   |                      |                         |      |   |             |

Picture 2 – Activities Map

All the requirement of products to the multimedia production are made by the instructional designer, that makes the requirement to the multimedia producer by standard forms. In project management, this phase is known as process initiation where is developed the Project Charter and the scope baseline.

# 2.3.2. PLANNING PROCESS

The multimedia producer receives a demand of products from the instructional designer and begins the planning process, which consists in the definition of the following items: scope, sequence and duration of activities, human resources and schedule.

The result of the planning process is a project with all the definitions mentioned above. It is inserted in the dotProject and the software undertakes of informing the instructional designer the delivery date. It also informs the human resources the complete schedule. The dotProject shares the information with the involved staff by e-mail.

# 2.3.3. EXECUTION PROCESS

Inside of each team, it begins the execution of the phases described in the project. The leader task is to share the information, guide, manage the execution and ensure the quality guarantee.

## 2.3.4. MONITORING AND CONTROL PROCESS

The multimedia producer is responsible for the monitoring activities and controlling the projects in execution performed by the teams: Design and Audio and Video Production. Among the activities, there are: checking and controlling the scope, monitoring and controlling the work, schedule and reporting performance.

## 2.3.5. EVALUATION PROCESS

There are two aspects to be evaluated: technical and functional. The technical aspect is related, mostly, to the mean of communication for which the product will be developed. The functional aspect will depend on the reach level of the requested product towards to the distance teaching. Therefore, the evaluation process may happen in different levels inside the CEAD organogram.

# 2.3.6. CLOSURE PROCESS

The closure process consists in the delivery of the product and the homologation made by the requester when the product arrives in its destination.

# 3. DOTPROJECT APPLIED TO THE PROCESS

After the processes definition, information flow, division of human resources, the dotproject was used as a tool for the project management. For each product request, in the planning phase, it is created a project, with specific activities and schedules and allocation of human resource in a strategic way. Based on the trio - Processes, people and technology, it was developed the Board 3 and the Board 4 with reports of difficulties and successes obtained towards the use of dotProject as a project management tool of the multimedia production team.

# **Difficulties**

| Processes  | For each product, it was developed a template project in the              |
|------------|---|
|            | dotProject, but some activities weren't dimensioned properly              |
|            | towards the products. It happened, mostly, in the video                   |
|            | production team.  |
|            | The closure process needs to be more specific, related to the             |
|            | technical specifications of the products towards the mean of              |
|            | communication. It is also necessary the improvement of the                |
|            | final product delivery process to the requester.                          |
| People     | The lack of habit and commitment of writing reports about the             |
|            | developed activities.   |
|            | <ul> <li>Lack of updating of the activities already performed.</li> </ul> |
|            | Some projects need the person responsible for the execution to            |
|            | make a written purpose of the product about to be developed.              |
|            | However, the team resists in doing this task.                             |
| Technology | The fact of the dotProject system doesn't fix a different work            |
|            | time for each system user, harms the accuracy of the project              |
|            | activities schedule. So all the users have the same weekly                |
|            | working hours and the same time for the beginning and end of              |
|            | work, which is not a reality in most cases.                               |
|            | The system surfing is a little complicated for beginner users,            |
|            | which makes the join process of the team more difficult.                  |

Board 3 – Difficulties in the use of dotProject

### Successes

| Processes  | The processes definition contributed to avoid the rework and to |
|------------|---|
|            | obtain a more accurate estimation towards the necessary time to |
|            | execute the tasks.  |
|            | The development of a written purpose made by the team towards   |
|            | a demand, allowed that the main changes were made still on      |
|            | paper. Increasing the productivity and fulfilling the schedule. |
| People     | The improvement of communication among the human                |
|            | resources involved in the project.                              |
| Technology | The O dotProject provided an efficient management of the        |
|            | projects.   |
|            | The dotProject became an environment of collaboration for the   |
|            | team, by the use of the following resources: calendar, events,  |
|            | forum and file sharing among others.                            |
|            | Optimized the planning process using the pre-existent reports.  |

Board 4 – Successes in the use of dotProject

# 4. FINAL CONSIDERATIONS

This article had purpose of presenting an use of the best project management practice [1]. It discussed about the structure of the team of multimedia material for distance education production, using the dotProject free software as a technological tool.

It was made a reflection about the difficulties and successes, divided by the trio: people, processes and technology. As everything new, in the beginning there was a certain resistance to the use of dotProject as a tool, mostly because of the necessity of developing a daily report of the activities. However, the join of the team allowed a closer follow up and a better adequacy in the project planning.

The conclusion is that the necessity of new products for the offer of distance courses is something new and challenger for many institutions. The option by developing these products inside the institution requires qualified work force, processes definition,

information flow and a project manager with a technological tool to follow and to monitor the development of the products.

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