

CHAPTER 11

DO WHAT I DO, NOT WHAT I THINK... A DISTANCE TEACHING AND LEARNING PROCESS

Breaking barriers with a distance teaching-learning process

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11.1 The Project – The First Training at a Distance for Project Managers at Dataprev

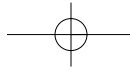
11.1.1 History and context

The project was developed as one of the six final projects in the blended training on Project Management (PM) by the end of 2003. It was aimed to offer to the agency's managers and project leaders – distributed in twenty-six offices around Brazil - a more flexible way to learn about PM. In view of the opportunity to advance in the direction of distance education, a group of four employees from different areas, with a common interest in distance education, engaged in the design and development of a teaching-learning process to be delivered exclusively at a distance, which resulted in a prototype to be tested.

In spite of the fact that technology was the agency's business, there were several cultural barriers that hindered the implementation of distance events in various organizational levels. When the group engaged in the project, its members were aware of the cultural barriers, and the main risks challenging the project were, thus, related to them.

As the final assignment in the blended training, the project should be a *capstone practicum*. The group included in the project the new knowledge acquired, and one of the main aspects was the issue of sharing responsibilities, according to individual skills and interests. Considering the instructional nature of the project, it was coordinated by a member with expertise in instructional design and distance education.

The project "Mini-Curso sobre Gerência de Projetos e o uso do SGP" – "Minicourse on Project Management and SGP utilization – started in November 2003 and finished by the end of 2004.



11.1.2 Cultural barriers to distance education

Face-to-face events were traditional in the agency, along decades. Being well succeeded, the events offered many opportunities for the development of a consistent know-how regarding evaluative practices.

The T&D area used to evaluate the process (formative evaluation) and the results (summative evaluation), mostly through the use of questionnaires. This well-working system eventually became responsible for some of the assumptions against the implementation of distance education.

Researching on barriers to distance education in North America, Muilenburg and Berge (2001) found that sixty-four factors emerge as impediments. They organized the factors in ten categories, which could respond for 52% of the total variance: administrative structure; organizational changes; technical expertise, technological support and infrastructure; social interaction and program quality; instructor time issues; fear of technology; legal issues; and efficacy and evaluation.

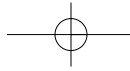
By the project's beginning, the team had already identified four main obstacles to be overcome:

1. *The efficacy of distance education was in question:* Instructional events delivered at a distance were, in general, perceived as being less effective;
2. *The delivery of instruction at a distance was found problematic:* Events delivered at a distance were perceived as having many technological and communication problems, which caused lack of motivation and dropouts;
3. *Students usually feel abandoned in distance education:* The agency's employees were used to f2f classes, and the general idea was that in this format they could easily interact with instructors and colleagues;
4. *Assessment/evaluation was a concern in distance education:* There were general perceptions that assessments and the certainty on the assignments authorship in events at a distance were problematic issues.

The team understood, then, that the project should be carefully planned, in order to prevent the actual fears hidden beneath the cultural barriers. In spite of the fact that technology was the agency's business, a teaching-learning process mediated by technology represented the non-traditional in the context and, thus, generated a lack of confidence in its effectiveness and efficacy.

The project team decided, then, to implement a plan to – if not eliminate – at least reduce the identified cultural barriers. They considered applying a strategy consisting of the following aspects:

- a. The project should result in a product with high standards of (overall) quality, to be exhaustively tested, by all stakeholders;
- b. A consistent theoretical basis should guide the project; and
- c. A comprehensive evaluation process should be designed, developed and implemented, with the participation of the whole group of stakeholders.



These three issues working together could reduce/eliminate the existing barriers to the use of technology for training.

11.1.3 Project main goals

The project was aimed at advancing toward the implementation of distance training solutions in the agency. The idea was to create an event to be delivered exclusively at a distance, which could not only offer the opportunity for flexible learning of the basics in PM, but also could reduce or eliminate fears hidden in the cultural barriers to distance education.

The team also intended to offer opportunities for the HR T&D area to develop skills in teaching/managing events at a distance. Considering that the project was the first “full” distance event in the agency, the team planned to design a rich teaching-learning environment. Therefore the development of a real product to be tested in the real world was the big challenge to be faced.

Similarly, the evaluation process – representing a strategic aspect of high relevance – should be carefully designed. The evaluation forms implemented in the agency were, then, analyzed, aiming at incorporating advances for a more comprehensive evaluative process.

To find a client and a supporter for the project were the first goals to be reached. The T&D manager accepted to act as a supporter and the planning manager, considering the possibilities offered by distance education, accepted to act as a client, but only if the product could include a topic about a tool designed by agency’s developers to be used by the agency’s managers.

11.1.4 Stakeholders

Stakeholders to the project were the project team, the client, the supporter, the online environment staff and the target population. The later, identified by the client, were the agency’s project leaders (managers and advisors), who worked in offices distributed around the country. Beside particular roles, the whole group should act as evaluators for the process and for the product.

11.1.5 Theoretical foundations

Many theories and perspectives were identified as adequate to support the project goals, and their principles were applied in many instances, in order to allow consistency. These were: Piaget’s cognitive-development; Vygotsky’s cultural-historical theory; Gagné’s conditions of learning; Bandura’s social cognitive learning; Weiner’s attribution/motivation; Lévy’s collective intelligence, Perrenoud’s competencies and Roger’s diffusion theory.

11.1.6 Integration of Teaching-Learning and Evaluation

The knowledge (K), the skills (S) and the attitudes (A), identified by the client and the project team, to be reached through the event were the basis for the project. A model (Rodríguez, 2003) was created to interrelate teaching, learning and evaluation in the training solution to be delivered at a distance, as seen in Figure 11.1:

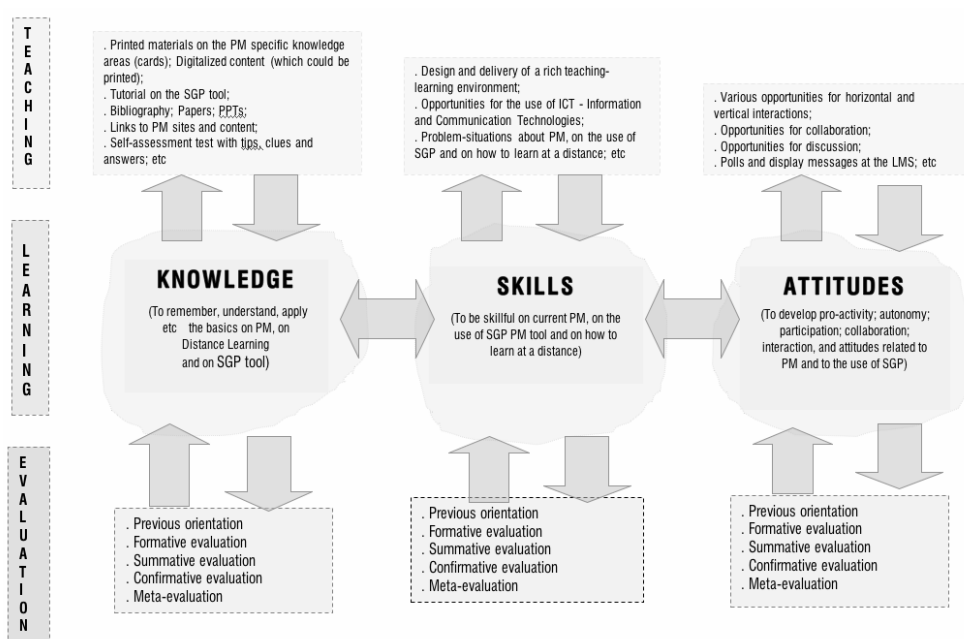


Figure 11.1 Model for the Teaching-Learning-Evaluation interrelation

The model has at its center the knowledge (K), the skills (S) and the attitudes (A) to be reached by the learning community throughout the training.

11.1.7 The teaching-learning environment

The training should be delivered exclusively at a distance, mediated by different technologies, in two modules: the first focusing on PM and the second, on SGP – Sistema de Gestão de Projetos, or Project Management System. A relevant part of the content should be based at the Internet and at the Intranet of the agency. Digitalized content, auto-instructional exercises, polls, papers, evaluation forms etc., were prepared to be delivered at the event, together with a list of relevant sites on the main topics.

To accommodate diversity, the training should be offered in different formats, including printed materials, to be used after the event by the project leaders.

The team sought an online environment and found different products adequate to accommodate the pedagogic strategies. Among them, a LMS (Learning Management System) called Learning Studio – created at PUC-Rio – was borrowed to the project team.

The second part of the training, on the SGP tool, was to be offered as a multimedia tutorial, in which the learner could simulate the use of the tool.

11.1.8 The qualitative evaluation process implemented

Romiszwski (2003) points out that new educational paradigms require new evaluation paradigms, which calls for innovation. With this idea in mind, the project team

designed the evaluation process, heuristically, based on current and traditional evaluation practices. In Figure 11.2, a scheme of the evaluation process.

The evaluation was conceived according to the instructional main objectives (K-S-A to be learned). Process and product should:

- Allow/facilitate the construction of basic competencies on Project Management and on the use of SGP management tool;
- Allow/facilitate the construction of competencies in distance learning, mediated by information and communication technologies; and
- Allow/facilitate the construction of competencies in the conduction and management of teaching-learning events delivered at a distance.

For a better understanding of the scheme presented in Figure 11.2:

1. The **learning** “side” is represented basically by project leaders;
2. The **teaching** “side” is represented by test coordination, Subject Matter Experts, client, supporter, and support team. It includes the product (the short course), its strategies and components, and the online environment.

The evaluation process lasted around ten months and was implemented in four stages (Formative, Summative, On the Job, and Meta-evaluation).

11.1.9 Test of the prototype

The prototype was tested along thirty days (05/20 to 06/20), by the totality of the stakeholders. One week before, the project coordinator systematically began to communicate with the stakeholders – mainly with the main public – to provide information about the test and the planned strategies.

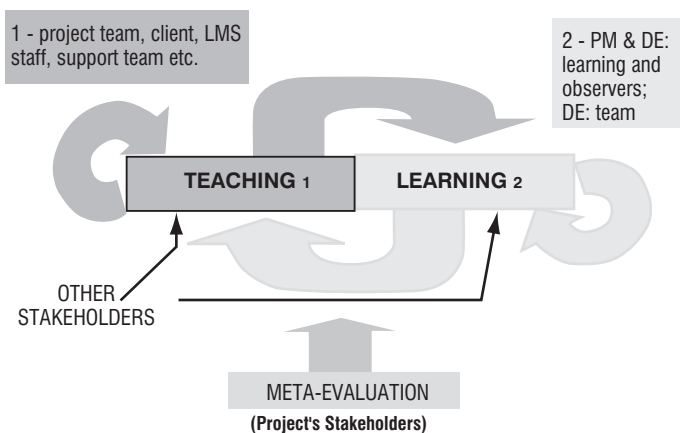


Figure 11.2 Scheme of the evaluation process

11.1.10 Synthesis of the test outcomes

Along the process, the evaluation’s instruments were analyzed and synthesized in reports of the different phases of the evaluation process to be delivered to the different stakeholders, with suggestions for improvements, preparing the future implementation of similar events in the agency.

11.2 The Product

The product was developed in different formats entirely by the project team, at Dataprev, and the digitalized content was inserted at the LMS – Learning Studio. Figure 11.3 shows the training homepage.

Sixty objects offered in two modules composed the digitalized content. Figure 11.4 presents the expanded index.



Figure 11.3 Mini-Curso Home Page, in Learning Studio

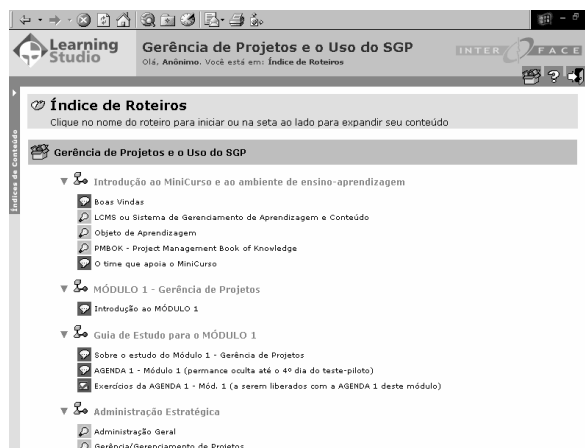


Figure 11.4 Expanded Index of the Online Content

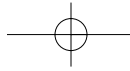


Figure 11.5 shows an object of the first module (on Project Management).

Module 2 focused on SGP – Sistema de Gestão de Projetos –, a project management tool. A multimedia tutorial was created to simulate the tool's resources. In figures 11.6 and 11.7, the screen of the tutorial, based in the agency's Intranet.

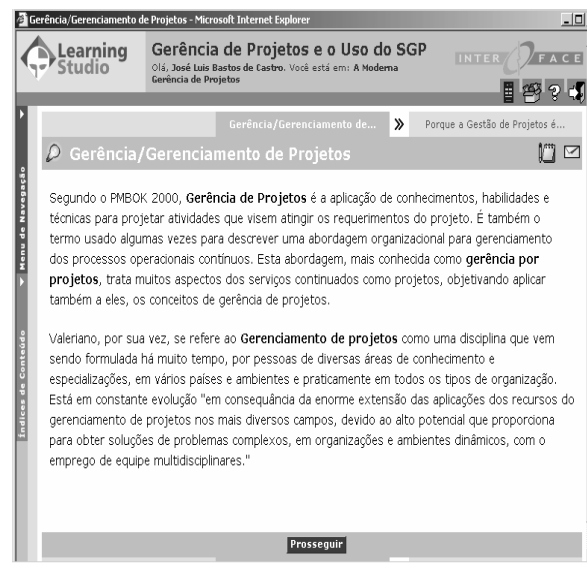


Figure 11.5 Object on Project Management

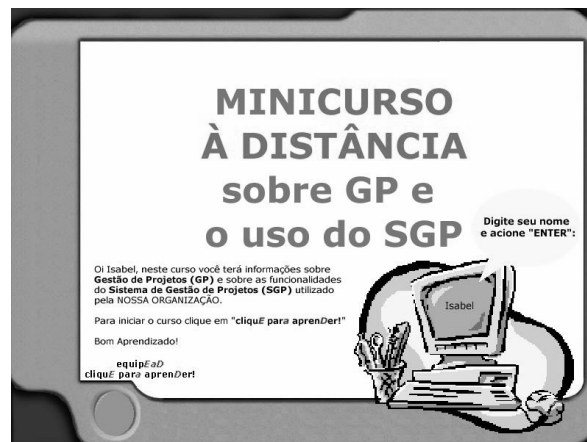


Figure 11.6 Tutorial Multimedia SGP First Screen

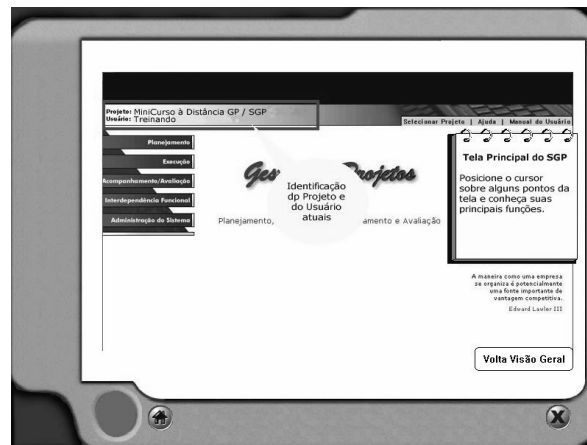


Figure 11.7 Simulation of the Use of SGP

11.3 Final Considerations

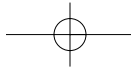
Even with the careful planning, many aspects required improvisations and adaptations in the implementation stage for the first module to be delivered exclusively at a distance at Dataprev. Similarly, the intensively planned process of evaluation had to face many problems and obstacles to be implemented. Due to the fact that the project was perceived as a novelty in the context, the project team had to be extremely careful by implementing it, keeping in mind the idea of simplicity in evaluation: the right questions lead to the “right” answers (Scriven, 1991).

Several lessons were learned by the stakeholders, the most important being related to the process of diffusion of the innovations, in which every problem allowed exchange of information, collaboration, and learning.

The cultural barriers to distance education appeared all the time along the project, as expected, being at the same time problems and opportunities for reflection and learning, thus supporting the construction of various competencies for future use in the implementation of the format in the agency.

The team noted that the clear identification of the cultural barriers is essential to the success of any effort to eliminate them, but the best strategies do not guarantee their elimination. New barriers and risks appear every day, mainly in public organizations, demanding continuous effort to overcome them.

The great merits of the project – besides pushing the organization to advancing toward the implementation of distance training solutions – were the opportunities for experts of different areas to collaborate, aiming at extending the benefits of the corporate HR development efforts to the majority of the employees. Collaboration and learning on how to manage knowledge are essential skills nowadays (Formiga, 2003).



11.4 References

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