The Quality of Social Interaction in Distance Education: an Experiment Based on User's Perspective

Bastien Sasseville
Université du Québec à Rimouski (Canada)
bastien_sasseville@uqar.qc.ca

Abstract

The main hypothesis of this research contended that modifications to the learning platform of an online distance education course and to the learner's support would influence in a positive way the learner's perception of the learning process. Even if those modifications had a positive effect on the learner's appreciation, we cannot attribute this only to the experiment's modifications. The results suggest that, in distance learning situations, the learner will adapt the processes and tools offered by an online DE course to suit his learning needs and goals. Furthermore, the quality of the social interaction between learner and tutor is at the core of the learning experience and is revealed to be, in fact, the main factor in the appreciation of the distance learning experience. Finally, some communication tools were deemed better suited in establishing a positive learning interaction.

1. The research theoretical basis

In the field of mediated distance education, learning is materialized in the institutional framework of a program, a course or a learning activity by the development of systems in which the learner is able to construct knowledge and develop skills. Previous research show that the learner can interact with the content and teaching materials, with peers, with the person in charge of mentoring (tutor), with the staff of the learning institution or the people in his immediate entourage [1].

In a cognitive-constructivist approach, the learning system combines the appropriate means to promote quality interactions to support the learner's commitment in the construction of knowledge. By interaction, we mean a process of reciprocal actions between two people, or between a person and a learning tool or system. This interaction is perceived of quality when it contributes positively to the satisfaction of needs or expectations [2]. During the learning process, learners can enter in interaction with elements not provided by the designers, or divert the use of some elements of the system for their own goals. Thus, mediated learning should be considered as a co-construction process, combining structured means developed by designers and the more or less structured reorganization of these means by the learners themselves during their learning process.

2. The mediated learning system

A mediated learning system can be conceived as a set of means in service of a strategy or an action, planned to obtain a result. Its operation is determined by the designer's intentions and relies on the structured organization of the material, technological, symbolic and relational resources [3]. The term "system" therefore covers a reality greater than materials or means of support for teaching and learning. In a cognitive-constructivist perspective, prescribed systems and modes of interaction are the best suited means to promote quality interactions to support the commitment of the learner in his construction of knowledge. However, a proposed system does not guarantee its actualization. Indeed, it is the effective use by the learner, contextualized socially and in space and time, which will permit its operationalization [4]. In mediated distance learning, interactions are usually instrumented and the modalities of interaction and the material are provided by the designers. Interaction's scenario is related to the conduct of interactions between the learner and the content in the learning environment [5]. The learning system will determine the definition and implementation of learning activities, rules and instructions, modalities of support and resources available to learners to achieve their goals [6]. The learning scenario may provide a coaching scenario where the actions required to support the learner are determined as well as their

moments and terms. If the learning scenario is usually fairly well detailed, it is not of the same of the coaching scenario which is often neglected or reduced to a generalization of the role of the person in charge of learner's support. Our previous research demonstrated how important the coaching scenario and the modes of support are considered by the learners, particularly in their relation with the tutor [7].

3. Research hypotheses

In this experiment, we focused our attention to the learning scenario as well as the coaching scenario. Our main hypothesis postulated that changes to the experimental system and terms and conditions of guidance would have a positive effect on the learner's perception of the quality of interactions in the learning process. We wanted to determine if an intentional change in the coaching scenario would have a positive effect in the qualitative assessment of distance learning.

That led us to formulate three underlying hypotheses:

Related hypothesis A: Additional tools available to the learner within the experimental system will have a positive effect on the perception of the quality of learning.

Related hypothesis B: An intervention to improve the quality of the tutor-learner relationship will have a positive effect on this perception.

Related hypothesis C: The communication mode used in the interaction can have an effect on the perception of quality of the said interaction between tutor and learner.

4. Brief description of the experimental system

To test these hypotheses, we have established an experimental protocol where a learning system was subjected to a control group and two modified systems were subjected to two experimental subgroups. While the first subgroup experienced a system where additional tools were put at the disposal of the learners, the second experienced a system where explicit instructions were given to the tutor to positively influence the learning relationship. The control system (0) and the two related experimental sub-systems (A and B) were developed from an already existing online course on writing skills in social sciences. The individualized support and coaching of the students was done by a tutor accessible by phone, e-mail and discussion forum.

In the sub-system A, the changes consisted in the addition of educational resources and tools and special instructions to the tutor to focus interventions and comments on the improvement of the performance of the learner by suggesting, among other things, the use of these resources. In the sub-system B, the changes were focused on the relationship. Telephone contacts were added to the original coaching scenario. The tutor also had instructions to introduce interventions of emotional nature, questions and comments that may contribute to the strengthening of confidence, self-esteem and the sense of efficacy of the learner.

Twenty-two students from the University du Quebec à Rimouski, recruited on a voluntary basis, had to meet the following requirements: no prior experience of distance education and a desire to improve the quality of their writing and editorial skills. The selection of volunteers was carried out to obtain an equal distribution between gender, field and level of study in all in the three experimental groups (0, A and B).

The research team has opted for the triangulation of the information gathering methods: a log completed by learners and tutors, transcripts of telephone and electronic exchanges, as well as post-experimental collective (students) and individual interviews (tutors).

We recreated each individual learning process in the form of a chronological table of events by combining data collected from log and transcripts. A content analysis was performed, enabling us to better understand the evolution of the learning process.

5. Results and discussion

It is difficult to say that our main hypothesis was validated. Although changes made to the system had a positive effect on the learner's perception, we cannot attribute this result only on the planned changes. Several other factors may have had an effect on this perception, particularly the personality of the tutor. According to the data, the latter sometimes broke the proposed scenario, transgressing the original

instructions. The A group's tutor was often shown to be encouraging and offered more emotional support while he was only to redirect participants to new resources or suggest the use of appropriate tools. This initiative leads us to caution.

The quality of the experimental system itself was poorly judged by the learners. The relatively stripped down platform did not contribute to foster the interest of the participants and didn't help change their perception of a somewhat not particularly innovative learning environment. It should be noted that the proposed pedagogical approach remained focused on the content and proposed no particularly innovative pedagogical methods. The learning scenario proposed readings and exercises, with a final drafting, as well as regular feedbacks on the learner's achievements, which remains a quite traditional approach. For learners who had no prior experience in distance education, this type of approach, a priori regarded by them as stimulating and innovative, was then perceived as disappointing. This has probably played much in the overall assessment of the system.

The related hypothesis A cannot be confirmed. Adding tools to the system did not clearly have any identifiable effects. As for the related hypothesis B, the effect of the added telephone calls, focused on exchanges of socio-affective nature, appear more clearly, especially in respect of the expressed satisfaction with the relationship between the tutor and learners. Concerning the related hypothesis C, it is difficult to affirm that the choice of communication mode had an effect on the relations between tutor and learner. But we can note that, there was an effort to reconstruct in a distance setting non-verbal clues during the exchanges.

In conclusion, it should be noted that the results obtained from this research tends to confirm the idea that, in the real context of learning, a learner appropriates and uses a system for his own purposes, which is a diversion from the intentions of the designers. The material elements of the system appear very adaptable in the learning process. Indeed, they are susceptible to manipulations for various purposes, depending on the immediate context of learning.

Secondly, it should be noted that the quality of the tutor-learner interaction is essential for the learner. This expectation seemed much focused on the tutor and the emotional relationship established during learning. As this relationship exists within a process of constant adaptation between the varying demands of the learner and, on the other hand, the responses of the tutor, the concept of quality remain diffuse and difficult to grasp. We might say that the quality of the interactions is found in the possibilities offered by a system rather than within what is actually proposed. And that the relationship with the tutor serves, among others, as a thread in the adaptation process initiated by the learner.

References

[1] Deschênes, A.-J. & Maltais, M. 2006. *Formation à distance et accessibilité.* Québec : Télé-Université.

[2] Paquette, D., Deschênes, A.J. & Paquette-Côté, K. 2007. *Les indicateurs de la qualité des interactions entre l'apprenant et le professeur/tuteur dans les dispositifs de formation à distance.* Communication au colloque GIREFAD, 75e Congrès de l'ACFAS, mai 2007, Université du Québec à Trois-Rivières.

[3] Peraya, D. 1999. Médiation et médiatisation : Le campus virtuel. In Jacquinot-Delaunay, G., Monnoyer, L., Le dispositif. Entre usage et concept. *Hermès*, 25, Édition du CNRS.

[4] Paquelin, D. 2004. Le tutorat : accompagnement de l'actualisation du dispositif. *Distances et savoirs*, 2, 3, 157-182.

[5] Tricot, A. & Rufino, A. 1999. Modalités et scenario d'interaction dans des environnements informatisés d'apprentissage. *Revue des Sciences de l'éducation*, XXV, 1, 105-129.

[6] Quintin, J.J. 2008. *Accompagnement tutoral d'une formation collective via Internet. Analyse des effets de cinq modalités d'intervention tutorale sur l'apprentissage en groupes restreints.* Thèse de doctorat. Université Stendhal, Grenoble.

[7] Sasseville, B. & Morel, M. 2008. L'encadrement en formation à distance : Le point de vue de l'apprenant. *Distances et Savoirs*, 6, 4, 519-546.