Chapter 9
Interactions and Distance Learning

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OBJECTIVES OF THE CHAPTER

This chapter will try to answer the following questions:

• How can the various types of interactions between the five poles of the model be envisaged?
• What new issues emerge from this review?
• How can this apply to distance learning contexts?

In the second part of this book, we discussed the nature of the five poles on which our didactic ergonomics model rests, as well as the nature of the language learning process around which the system revolves. While, in some cases, we could identify sets of theories on which to construct acceptable representations, we were faced with a number of areas where uncertainty proves to be unavoidable. This in no way invalidates the model but points to the complexity inherent in any attempt to describe human behaviors and actions.

INTERACTIONS WITHIN THE MODEL

Studies on interactions in distance learning are numerous, and can be mainly characterized as (a) centered on the learner and (b) of analytical type. An example of the first type could be Thurmond’s definition of interaction as:

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...the learner’s engagement with the course content, other learners, the instructor, and the technological medium used in the course. True interactions with other learners, the instructor, and the technology result in a reciprocal exchange of information. The exchange of information is intended to enhance knowledge development in the learning environment. Depending on the nature of the course content, the reciprocal exchange may be absent – such as in the case of paper printed content. Ultimately, the goal of interaction is to increase understanding of the course content or mastery of the defined goals. (Thurmond, 2003, p. 4)

Analytical studies would tend to agree on the existence of four types of interactions: learner-content (language, in our case), learner-peers, learner-teacher and learner-technology, also referred to as learner-interface (Chen, 2002, Ehrlich, 2002, Navarro & Shoemaker, 2000, Rovai, 2002, Swan, 2001). Thurmond & Wambach (2004) note that while the first three forms of interaction are shared between face-to-face and distance learning situations, only the fourth type of interaction (learner-interface) may be totally absent from traditional classroom situations.

In a Web-based course, the learner-interface interaction can have a tremendous bearing on students learning the content (Hillman et al., 1994); consequently, instructors need to consider the impact that Web-based technology will have on learning when designing Web-based courses. (Thurmond & Wambach, 2004)

By focusing on this specific interaction, it seems to us that such analytical approaches fail to take into account the diversity of the impact of technological and distance mediations. In our ergonomic perspective, a comprehensive view of the system requires considering how this impact takes place in the variety of interactions outlined in the model, and how the existence of the modified interactions induces retroactive changes in the initial nature of the poles. This description, however, can only be partial and tentative, as little research has yet been conducted on these specific issues. Furthermore, as most of these interactions entail cognitive and mental processes, they are not directly accessible to the researcher who can only observe their external effects and the actors’ behavior. This chapter will therefore envisage only the main issues raised by the systemic and ergonomic approach to distance language learning. Our aim will be to identify the main interfaces in the system, i.e. the ‘places’ where significant interactions take place, so that the various actors in the language learning environments (designers, teachers, tutors especially) can construct these interfaces in such a way that the expected interactions will coincide as much as possible with the initial didactic intention.

The flow of information from one element of the system to the other determines a number of interacting sub-systems presented in chapter 1. From an ergonomic point of view, any of these can be considered on its own, but it is their global articulation which gives the environment its global coherence and provides a measure of its potential pedagogic quality. Each of these articulations constitutes an interface whose form should be thought in relation to its users as well as to its interactions with the other sub-systems.

Any description of the sort remains limited in its scope, as the three levels of mediation we have outlined, the necessity for the actors to reconstruct the enriched reality generated by technology and distance, as well as the multiplicity of forms and uses of technology (chapter 7) add to the complexity of the situation. Furthermore, the learners’ various uses of materials and learning spaces are characterized by their evolution in time: indeed their perceptions and expectations change as they interact with the instrument, which gives the system a dynamic dimension, independent from the one introduced by the evolution of technology. The convergence of these diverse forces in the