Chapter IV

All About Constraints

The more constraints one imposes, the more one frees one's self. And the arbitrariness of the constraint serves only to obtain precision of execution. (Igor Stravinsky, quoted in Simpson, 1988)

Introduction

This chapter considers the role of constraints in determining the nature of an educational transaction and examines a range of potential sources of constraint. Garrison and Baynton (1987) begin to explore this issue when addressing the concept of “power,” loosely speaking, the ability to exert control over a learning transaction. Although they give some interesting examples and relate it to the other important issues of support and independence, they leave it as a fairly fuzzily defined concept. It is easy to underestimate the importance of constraints when examining control in a learning transaction, but impossible to understand control without them. A central outcome of this chapter will be to better understand the nature of constraints that are intrinsic to a system (that arise from the nature of the interactions within it) and those that are extrinsic.

The word “constraint” tends to suggest something negative, but this is not the intended usage here. Constraints often encourage people to seek innovative and creative solutions to problems and, as such, may be positive contributors to effective learning.
What is significant from the point of view of transaction control is that there are constraints and that they do help to shape the nature of the learning activities that learners engage in. The result may be liberating as much as it may be limiting.

The Limits of Choice and the Role of Constraint

There is no such thing as unconstrained choice. Choices are always made within a context. In fact, with no constraints at all, they would not really be choices: the concept of choice implies that there is a finite range of options to choose from, hence from a constrained set of possibilities. We choose between things.

In an educational transaction, there may be constraints imposed by a vast range of things, such as the subject matter, available space and/or time, degree of initial knowledge, personal preference, the weather or even the laws of grammar. For example, the choices that may be made when writing this sentence are not only constrained by the possible range of English words, but also by the laws of grammar and syntax that apply to them. The choice about which word to type next is considerably more constrained than the choice of subject matter or even which sentence will come next. Semantic constraints also mean that it would be highly unlikely that a sentence would be written that is completely unconnected with the subject matter that occurs in the rest of the paragraph. This trivial example is an instance of a more general rule: earlier choices will usually affect later choices. Some choices may constrain further options, while others may open up new avenues of opportunity that were not there before.

In almost all circumstances, the history of choices already made influences the choices that may be made in the present and those that might be made in the future. At the start of this book, the author could have chosen to write about anything of which he had some knowledge. Having decided to write about Moore’s theory of transactional distance and its implications for the design of e-learning systems, the range of potential choices were reduced by an exponential factor. Choices may be made from many paths. Once one path is chosen it will usually reduce, but seldom eliminate, the likelihood of jumping across to a different path. Few constraints are absolute.

Choice is often a matter of degree. The fact that this paragraph began on the topic of choices does not prevent it from ending on the subject of cat breeding. The fact that you have read the words up until this point does not imply that you will continue to do so (there, you did!). However, it is far more likely that you will (having got so far) than that you will skip to the next paragraph or put the book down altogether, although it is almost certain that you will do at least one of those things at some
The Use of Virtual Museums, Simulations, and Recreations as Educational Tools
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