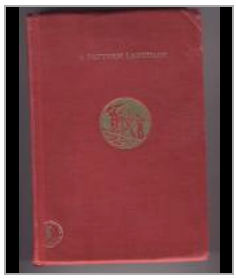

Patterns constituing a complete pattern language.

Example pattern

In this section we will step-by-step take a look at an e-learning design pattern. We will try to explain it's elements and content and how the process of making an e-learning design pattern could happen.

Download example pattern **here**(pdf).

Name:

Virtual assistant*

First, the name should in some way describe the characteristics of the solution and should be relatively short in order to make it easy to remember and communicate about.

Category:

CSCL

The category should point towards a more specific application area. Alexander ordered his patterns from larger (regions, towns) to smaller (interior design). This pattern is developed in the field of CSCL (Computer Supported Collaborative Learning), and is concerned an important issue in CSCL, how to facilitate for 'rich interactions'.

Abstract:

Collaborative telelearning emphasizes the collaborative interaction in online learning communities in-between students and facilitators. The nature of the distribution puts an heavy load on coordinating the interaction between learners (e.g working in teams), and between learners and facilitators (teachers etc). Mechanisms to support the coordination work on behalf on the students and mediate the interaction are needed to lessen this load. This can be done by designing personal assistant that keep an overview of what happens and report (and support) back to the student. Incorporated in the agent/assistant there also should be wisdom about how knowledge building communities best flourish thereby scaffolding the interaction creating richer interactions and opportunities for learning.

The abstract should in brief outline the problem, analysis and the solution the pattern has to offer. Here it start with some analysis of the nature of distributed collaborative learning, then points to problems associated/observed in CSCL. Last, the solution and it's content is presented briefly.

Problem:

Students have difficulties in following and structuring an cohesive joint effort and coordinating their interaction on learning tasks when working collaboratively in distributed teams. This often lead to little activity, scattered contributions, alienation, and students feeling they are wasting their online time.

This brings up an often reported problem in (distributed) CSCL, and some of it's consequenses. The prboelm should be elaborated in the analysis part.

Analysis:

Collaborative telelearning emphasizes the collaborative interaction in online learning communities in-between students and facilitators. By following Salomon's (1992) recommendations, collaborative learning environments should be designed to encourage mindful engagement (voluntary expenditure of task related mental effort) among the participants through genuine interdependence. Genuine interdependence is characterized by Salomon as the necessity to share information, a division of labor and the need for joint thinking. In such settings there is a need for monitoring and facilitating this kind of pedagogy (Wasson, 1999, p.5).

These guidelines are great but we often see that students have difficulties in following and structuring joint cohesive interaction on learning tasks when working collaboratively in distributed teams. This often leads, in it's most dramatic form, to alienation, and high dropouts rates in e-learning programs. Another major problem is scattered efforts and little persistent cohesive activity along with unwanted group effects like 'ganging upon the task' and the 'sucker effect' (Salomon Globerson, 1989).

The complexity in collaborative telelearning scenarios can roughly be seen from two different points of view. From the instructor's view, collaborative telelearning is hard to monitor and facilitate. It is difficult to notice when a point of genuine activity occurs (e.g. when the students are online working or not) and progression is often not streamlined due to different timetables, local culture, and the individual student's personal preferences. From a student's perspective, it is also difficult to coordinate and align joint collaborate activities due to much of the similar problems. The problems of coordinating the distributed learning activities often require a "tremendous" effort on the students and the facilitators. The challenge is to move some of this "burden" from humans to ICT based artifacts.

This analysis points towards research and theories of CSCL. It also hints at being a 'research' pattern.