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Design of a Group Oriented, Decentralised Learning Environment

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Abstract: The paper presents the design of a group oriented virtual learning setting where learning takes place in three levels: individual learning, group learning and inter-group communication processes. This communication takes place via standard internet services.

Description

The objective of the didactical design presented in this paper is to support group learning processes in a virtual learning envirnoment. Learning should take place in group processes and be based on social interaction. Therefore the students work in face-to-face groups at each location of a decentralised seminar where they get support by a local coordinators. They enter into a communication process with other groups at other universities or locations via synchronous and asynchrounous internet services such as chat, email, and newsgroup. The technical requirements are based on standard internet services in order to keep the access reqiurements as low as possible and locally independent. While interactions in the local student groups support team competence, the communication process among the groups via internet provides the students with a decentralised, cooperative working experience. On an individual level the didactical concept supports more an exploring way of learning.

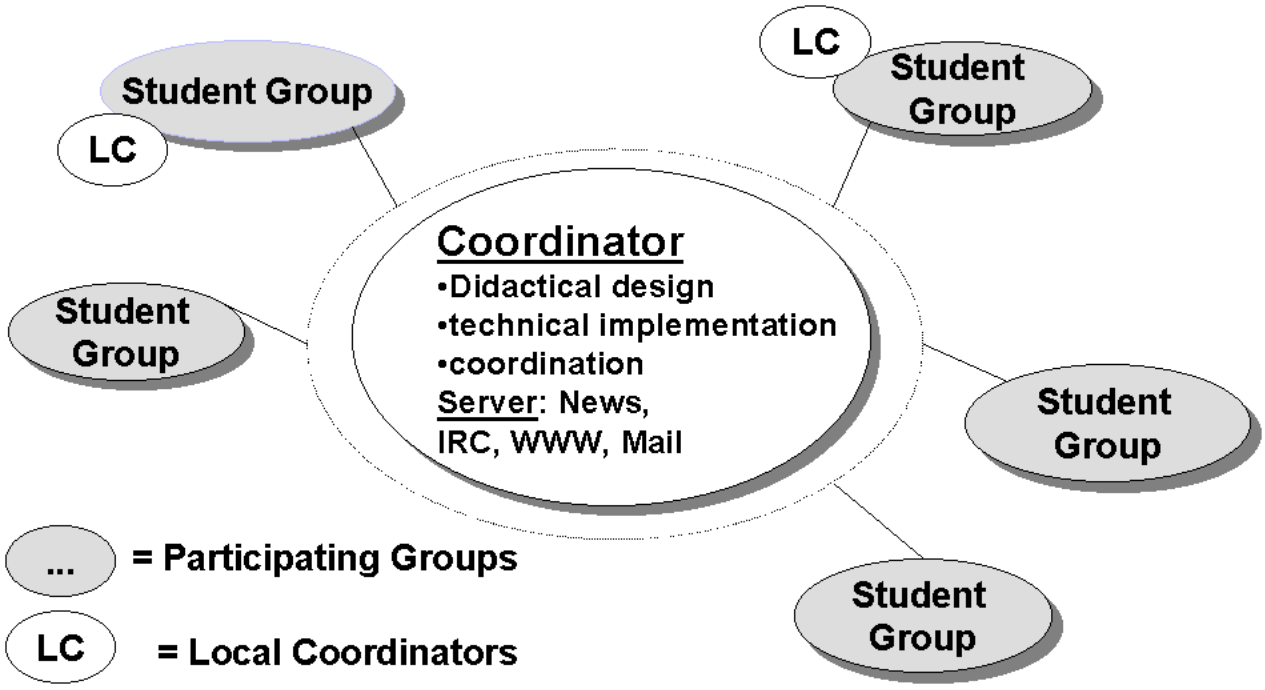

Figure 1: Geographical distribution of groups and coordinators and role of central coordinator

Learning on three levels

The special characteristics of this didactical design is the structured combination of synchronous and asynchronous communication based on a mixture of internet services and an appropriate combination of individual, group and inter-group learning.

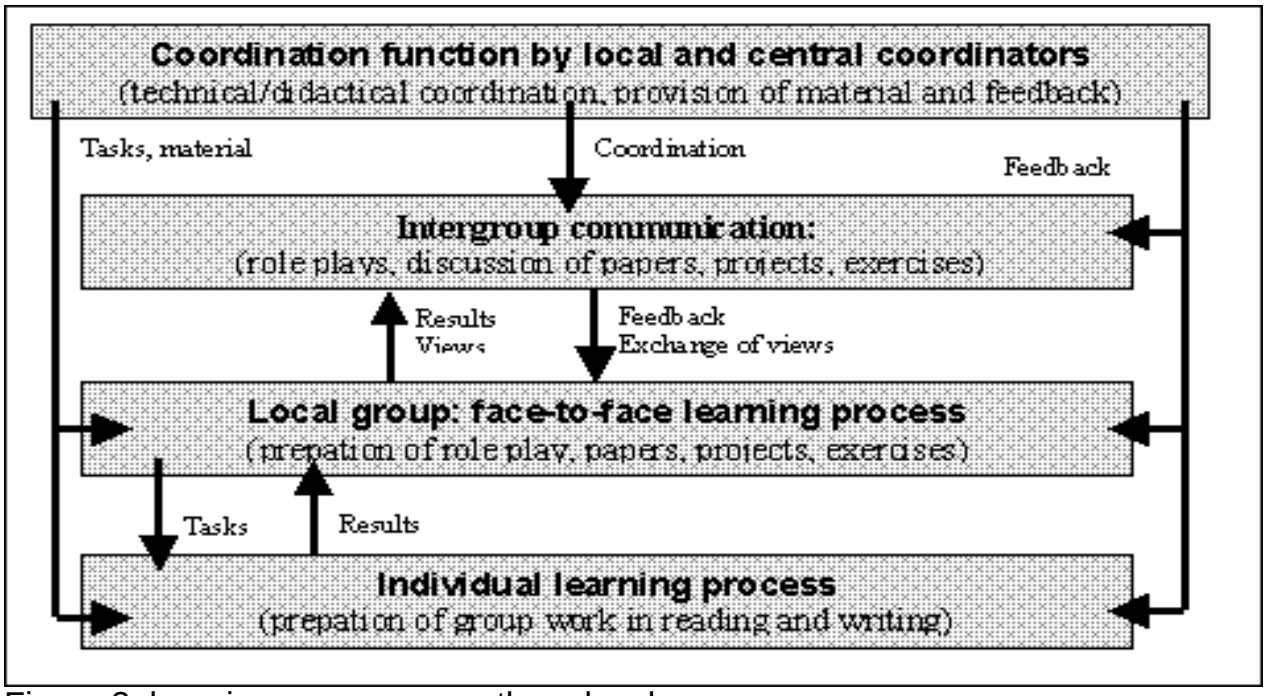

Figure 2: learning processes on three levels

As can be seen in picture 2 the main objective of this seminar design is to support learning processes within and across groups. Therefore the learning setting is designed in way to have local groups of 3 - 5 students who are supported by the local coordinator and who communicate with the other groups through the internet. On the individual level papers and readings are prepared. The local face-to-face groups discuss topics, exchange material, prepare papers and project work, and have role play discussions. The results of their learning process is exchanged with the other groups in order to compare results, points of views, cultural and disciplinary differences. Very useful for the learning process are role plays where each groups takes another point of view or role and discusses a common topic. In a second step roles can be swapped and a second discussion round is conducted.

Synchronous and asynchronous communication

One major advantange of a fixed virtual meeting per week is the connectivity which develops between the participants. The direct synchronous communication for the exchange of opinions in quick reactions supports the perception of a group feeling among the participants. Independently from the synchronous seminar session the communication with the coordinators and among the groups should take place via email, in newsgroups, and WWW-pages. The personalized

contacts should be supported by pictures of the participants and groups on WWW-pages including personal remarks.

In order to keep the technical restraint as low as possible it is helpful to meet on the lowest possible technical level. This is especially important if students participate from their home and are not equipped with for example a videoconferencing system. Therefore a minimum requirement should be defined - which is within this design: internet access, WWW-browser, email, and access to newsgroups and IRC. Each of these applications has special characteristics which makes it appropriate for one type of communications and not for another one. Therefore it should be looked for an optimal combination of the internet applications during the seminar sessions and for the surrounding provision of material and required communication.