Web-based Learning: An Action Research

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Web-based learning has been a hot topic in education. Student-centered instructional methods are highly recommended to implement web-based learning. It is claimed that web-based learning has the potential to facilitate cooperative learning, enhance group thinking, and cultivate group creativity. Therefore, the researcher will apply action research to explore the phenomena of student learning on the web.

The researcher will conduct an action research in the course “Introduction of Education.” The course is designed based on the thematic curriculum theory. The issue chosen is “Network Café.” Project-based learning, cooperative learning, role-play and discussion are instructional methods employed for this study. Students are divided into ten groups with 4-5 in each group. Each group must study one of the following fields: Educational Philosophy, Sociology of Education, Educational Psychology, Educational Technology, Curriculum and Instruction, School Administration, Teacher-Parents Cooperation, Parenting Education, Psychology of Adolescent, Teaching-Discipline-Guidance All-In-One [TDGAIO]. There is a roundtable meeting for are five weeks. Each group member has to be the representative attending the roundtable meeting at least once. In the meeting, each group has its own role related to its study field. They have to discuss the “Network Café.” issue based on the five topics: the purposes and functions of education, technology integration, adolescents and society development, parenting, school administration with [TDGAIO]. After five roundtable meetings, each group has to submit a paper based on their study, video-taping their oral presentation for the web show.

The web-based learning system for this study consists of 5 main sections: Course Content, Course Information, Class Interaction, Personal Tools, and System Tools. There are 5 subsections in Course Content Section: course introduction, course arrangement, table of content, on-line test, and assignment. Course Information Section includes 6 subsections: news, course announcement, FAQ, classmate information, ranking of courses, grade information. Students can check their grade and feedback from teacher for each assignment under the grade-information section. The system also provides the grade range for the whole class to students. Class Interaction Section has 6 sub-sections: course discussion, online discussion, group discussion, topic discussion, mailto teaching assistant, and survey-voting. Topic Discussion Section allows instructors to post topics for discussion and setup a deadline for each topic. Group Discussion is accessible for group-member-only and instructor. On-line discussion is a synchronous...
communication channel. Since the on-line discussion does not provide “save” function and file-sharing function, the researcher uses the software of netmeeting for roundtable meetings. Personal Tools Section includes personal information, my courses, calendar, calculating, and two games. System Tools Section: suggestions, ranking of students, school questionnaire, and on-line help.

The subjects are 46 freshmen majoring in Special Education and 3 first-year master students from Special Education program. The data will include on-line student journals, both synchronous and asynchronous discussion contents, e-mails, surveys, teacher journal, and documentation. Data will be analyzed with the following themes: student-teacher interaction, peer cooperation, student perception and attitude toward web-based learning, technology issue, and administrative support, and the function and design of web-based instructional management system.