

GENERAL:

If Technology is the Hammer, Where's the Nail?

Revak, Marie

Journal of Cooperation and Collaboration in College Teaching (winter 2000)

Volume 10, number 1, pp. 21-23

Abstract:

Suggests ways of using technology for the "Seven Principles for Good Practice in Undergraduate Education" published by the American Association of Higher Education (encourage contacts between students and faculty; develop reciprocity and cooperation among students; use active learning techniques; give prompt feedback; emphasize time on task; communicate high expectations; and respect diverse talents and ways of learning.)

Seven Principles for Good Practice in Undergraduate Education Implementation Ideas

Panitz, Theodore

<http://home.capecod.net/~tpanitz/7ideas.htm>

Seven Principles of Effective Teaching: A Practical Lens for Evaluating Online Courses

Graham, Charles; Cagiltay, Kursat; Lim, Byung-Ro; Craner, Joni; Duffy, Thomas M.

The Technology Source (March/April 2001)

http://technologysource.org/article/seven_principles_of_effective_teaching/

COMMUNICATION

Adapting Asynchronous Communication to Meet the Seven Principles of Effective Teaching

DeBard, Robert; Guidera, Stan

Journal of Educational Technology Systems (1999-2000)

Volume 28, number 3, pp. 219-230

Abstract:

Proposes that asynchronous communication via email, course Web pages, and the Internet can be adapted to meet the seven principles of effective teaching as well as enhance student outcomes. Considers problems associated with asynchronous learning, including access to computers; and presents strategies for overcoming problems through course design and accountability.

Distance Education as Communication Process: Transmission vs. Dialogue in Higher Education

Richter, Christopher; et. al.

Paper presented at the annual meeting of the International Communication Association (45th, Albuquerque, NM)

May 1995

Abstract:

This paper presents a communication perspective on the areas of definition, philosophy, pedagogy, and evaluation in distance education. Much of the debate in these areas centers around concern with autonomy and control, the purpose of education, and especially transmissional vs. dialogical conceptualizations of the educational process. These issues are not unique to distance education. Rather, they form the basis of debate in modern western society for educational and social philosophy generally. Based on a critical review of the research literature, the paper concludes that distance education is most productively conceived of in terms of a further development of and complement to traditional educational approaches, rather than in terms of a radical break. Finally, the paper notes that the philosophical debates are concerned with what are fundamentally communication theory issues. Thus the paper suggests that distance education offers a fruitful area of research not only in communication technology, but also in communication theory, and one in which scholars may make useful contributions.

http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/21/ec/78.pdf

Tools of Communication

University of Oregon

Academic Learning Services

<http://tep.uoregon.edu/technology/communication/communication.html>

RECIPROCITY AND COOPERATION

Benefits of Cooperative Learning in Weblog Networks

Wang, Jenny; Fang, Yuechiu

Online Submission

Abstract:

The purpose of this study was to explore the benefits of cooperative learning in weblog networks, focusing particularly on learning outcomes in college writing curriculum integrated with computer-mediated learning tool-weblog. The first section addressed the advantages of using weblogs in cooperative learning structure on teaching and learning. Attention then turned to issues of opportunities to participate in writing class. For the purpose of this study, the number and content of text contributions made by group members in the blogs including the online responses or asynchronous communication were analyzed. Results indicated that two thirds of learners agreed that using asynchronous communication improved the students' academic development. The benefits of cooperative learning within weblog networks in terms of learner autonomy, cooperative learning, and time management were then illustrated. Educator should stress on the emergence of the insights regarding how technology meets and supports the needs of students.

http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/31/b9/2d.pdf

Small Group Learning in an Online Asynchronous Environment

Brewer, Susan A.; Klein, James D.

Association for Educational Communications and Technology

27th, Chicago, IL, Oct. 19-23, 2004

Abstract:

This article reports the results of a study conducted to examine the use of small group learning strategies in an online college course. The study examined the effect of four types of positive interdependence and the affiliation motive on learning and attitude in an asynchronous, collaborative learning environment. Results indicated no significant differences in achievement by type of interdependence, or by affiliation motive.

Correlation analysis revealed a significant positive correlation, indicating that participants with higher numbers of interactions attained higher posttest scores. Participants in reward groups had significantly higher agreement with several attitude statements that reflected benefit from working with others and being able to generate better ideas in groups.

Furthermore, participants in all three types of structured interdependence, compared to groups with no interdependence, had significantly higher agreement with being able to learn more because team members knew it was their job to contribute to the group work.

In addition, participants with high affiliation motive had significantly higher agreement with several attitude statements. Groups with no structured interdependence had the most cognitive interactions, role groups had the most group processing, and reward groups were most off task. Implications for integrating small groups in computer-mediated learning environments are discussed.

http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/2b/c6/c0.pdf

Collaborative Learning in Community Colleges

Foote, Elizabeth

ERIC Digest (June 1997)

Abstract:

Collaborative learning refers to small-group instruction that incorporates five elements: clear, positive interdependence among students; group self-evaluation; interpersonal behaviors that promote each member's learning; individual accountability; and frequent use of small-group social skills. These elements have been implemented in colleges across the country. "As Worlds Collide," a culture and community course at Central Arizona College, has combined history, social psychology, and communications studies. Learning outcomes have included improved writing and social skills and awareness of others' values and beliefs. In a science literacy course at Indiana's Ivy Tech State College, active, problem-based learning and critical thinking skills were taught. Responses to student surveys indicated enthusiasm for the teaching method. New Jersey's Brookdale Community College enhanced a public speaking course with group activities related to research and presenting speeches. While post-course surveys found that teachers felt that

none of the anticipated benefits had accrued, students felt that the course helped reduce performance anxiety. Kansas Community College also undertook a study of collaborative sociology and psychology courses, finding no significant differences between grades among 50 students in collaborative courses and 100 in traditional classes. Finally, the "History of Western Civilization" course at Alabama's Calhoun Community College used collaborative learning and learning contracts. Students responded positively but many failed to meet their own set goals. While collaborative learning may be an effective teaching method, meeting teacher and student expectations depends upon program structure and student participation.

http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/2a/29/58.pdf

ACTIVE LEARNING

Faculty Do Matter: The Role of College Faculty in Student Learning and Engagement
Umbach, Paul D.; Wawrzynski, Matthew R.

Paper presented at the Annual Forum of the Association for Institutional Research (AIR) 44th, Boston, MA, May 28-June 2, 2004)

Abstract:

This study uses two national data sets to explore the relationship between faculty practices and student engagement. Our findings suggest that students report higher levels of engagement and learning at institutions where faculty members use active and collaborative learning techniques, engage students in experiences, emphasize higher-order cognitive activities in the classroom, interact with students, challenge students academically, and value enriching educational experiences. In general, faculty at liberal arts colleges are the most likely to engage their students.

http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/31/cb/5e.pdf

Experiential Learning in Higher Education: Linking Classroom and Community

Cantor, Jeffrey A.

ERIC Digest

Abstract:

Based on a longer report with the same title, this digest summarizes research on the use of experiential learning in higher education, focusing on classroom-community linkages. While the literature suggests that experiential learning is a necessary and vital component of formal instruction in colleges and universities, controversy exists among scholars and educators about its place and use. Faculty are concerned with optimizing the chances for their students to more easily enter their chosen professions or meet their desired goals upon graduation due to increasing competition among college graduates across most fields of study. Experiential learning programs exist across the range of subject areas and disciplines, and include cooperative education placements, practicum experiences, and classroom-based hands-on activities. Professional and technical disciplines, including education, health careers, and social work, are using experiential instructional techniques

to provide students with the competencies necessary to pursue successful careers upon graduation. The literature also reveals some not-so-obvious benefits of experiential learning, including school-community linkages, proactive economic development outcomes, and technology transfers.

http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/2a/27/f4.pdf

Student Experiences with Information Technology and their Relationship to Other Aspects of Student Engagement

Laird, Thomas T. Nelson; Kuh, George D.

Paper presented at the Annual Forum of the Association for Institutional Research 44th, Boston, MA, May 28-June 2, 2004

Abstract:

Considerable efforts have been made to get students to use information technology for educational purposes. This study uses data from the 2003 administration of the National Survey of Student Engagement (NSSE) to investigate the relationships between student uses of information technology and other forms of student engagement. The results suggest that there is a strong positive relationship between using information technology for educational purposes and other effective educational practices such as active and collaborative learning and student-faculty interaction. The results also raise questions about whether engagement with information technology should be viewed as a form of engagement in and of itself. Perhaps when students use information technology it increases the opportunities for other types of engagement.

http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/31/be/a0.pdf

PROMPT FEEDBACK

Effects of Types of Feedback on Achievement and Attitudes during Computer-Based Cooperative Condition

Eric Digest

Huang, James Chin-yun

Abstract:

While research concerning feedback and cooperative learning is prevalent in educational literature, there has been little systematic research to support whether various types of feedback in cooperative learning situations can affect student performance. This study examines possible interactions among different types of computer-delivered feedback on cognitive learning outcomes and attitudes during computer-based cooperative condition. The achievement of high and low-prior knowledge students was compared among different feedback treatments; the subjects were 120 university students enrolled in six sections of beginning weight training at the University of Minnesota. The computer-based instructional module was designed to help the beginners build their basic cognitive foundation in weight training; a retention test and an attitude questionnaire were administered to the students. Results indicated significant interaction between types of

feedback and prior knowledge level; results on attitude measure revealed that low-prior knowledge students had more positive attitudes than high-prior knowledge students.
http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/26/9d/a9.pdf

E-Feedback's Impact on ESL Writers' Revisions

Tuzi, Frank

Eric Digest

Abstract:

This paper describes a method of investigating the role and impact of electronic peer/teacher feedback on the revision process of English-as-a-Second-Language (ESL) writers. Participants are classes of intermediate or advanced college bound ESL writers who meet in Internet-accessible classrooms. They perform their writing and peer responses online during class. Students and instructors receive coaching on effective response concepts at the beginning of the semester. They also receive training in technology use. Writers produce three different essays during the semester with at least two revisions per essay. After the writer drafts and posts each essay online, teachers and peers read the drafts and write and post their responses directly in the browser, and the writers revise their papers. All data are analyzed as they are received. Drafts are analyzed using a rubric adapted from Hall's research analysis (1990). The rubric includes three categories (level, type, and purpose of revision). Peer and teacher responses to using electronic collaborative software are evaluated. Interviews are conducted throughout the semester. ESL writers who receive feedback indicate that they see the benefits of electronic feedback, which impacts revisions, provides detailed written comments, and alters writing pressure.

http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/0d/da/aa.pdf

TIME ON TASK

The Effects of Relevance on Mental Effort

Cennamo, Katherine; Braunlich, Elizabeth

Eric Digest

Abstract:

According to Keller's Model of Motivation, one technique for increasing learners' motivation, and thus their mental effort, involves increasing the personal relevance of the material. When instruction is perceived as relevant, learners perceive that important personal needs are being met by the learning situation. The purpose of this study was to manipulate the degree of relevance present in both a videotaped and print version of a lesson to determine whether increasing the relevance of a lesson increases the amount of material effort invested. Students enrolled in a sophomore level education course at a large Midwestern university were invited to participate in a two-hour lesson on desktop publishing. Instructional materials consisted of four lessons: (1) a "standard" video on desktop publishing; (2) a motivationally enhanced videotape; (3) a text version of the

standard lesson; and (4) a text version of the motivationally enhanced lesson. Assessment measures consisted of a self-report questionnaire, a computer program that measured response rates, and a posttest. Findings were consistent with the results of previous studies conducted with elementary and middle school students. Participants reported in the questionnaire that they invested more mental effort in learning from print versions of the lessons than in video-based versions. The students who received the video-based lesson had significantly longer reaction times to the secondary task measure.

http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/27/1b/3e.pdf

The Effects of Design Strategies for Promoting Students' Self-Regulated Learning Skills on Students' Self-Regulation and Achievements in Online Learning Environments

Eric Digest

Cho, Moon-Heum

Abstract:

The purpose of this study was to investigate the effects of design strategies for promoting students' self-regulated learning skills on students' self-regulation and achievements.

Seven strategies for promoting students' SRL are identified through the literature review and applied into the experimental group: goal setting, self-evaluation, self-monitoring, cognitive strategies, resource management, self-efficacy and volition. Students were assigned into the control and experimental group. Independent samples T-test and semi-structured interview were conducted to analyze the effects of the design strategies.

Implications to promote SRL in online learning environment were discussed. Recently, self-regulated learning (SRL) has emerged as an important issue in educational circles (Boekaerts, 1999; Schunk, 2000; Schunk & Zimmerman, 1998). Self-regulated learning is students' active learning processes in meta-cognition, motivation, and behavior (Zimmerman & Martinez-Pons, 1986). Self-regulated learning skills are critical for students to succeed in learning not only in traditional learning environments, but also in web-based learning environments. This is particularly true in online learning environments, where students basically learn by themselves without face-to-face instruction and immediate help from teachers. In addition, from the perspective of lifelong learning, the needs for E-learning have been increasing. This relatively unfamiliar learning environment can be challenging to students. Therefore, promoting students' SRL skills is something that instructional designers should consider when they design online learning courses. Zimmerman, Bonner, and Kovach (1996) argued that students' self-regulation can be taught and improved through the students' own efforts. However, promoting students' self-regulation is not an easy task because it requires them to spend a lot of time and energy. In addition, promoting self-regulation is only possible when students experience the benefits of self-regulation (Zimmerman, Bonner &

Kovach, 1996). Many researchers argued that the effective way to improve students' SRL skill is to embed SRL strategies into the context. This is because students do not apply the learned SRL skills into their learning context after they learned self-regulated learning skills. Also, it is important to have students experience (Zimmerman, Bonner & Kovach, 1996) and use the designed SRL skills into their learning. It is true that many students even don't click a designed content or button and ignore many important learning events designed for them (Lim, 2002). Many researchers (Ley & Young, 2001;

Zimmerman, Bonner & Kovach, 1996) suggested the following four design principles to promote students' self-regulated learning skills: (1) The SRL activities need to be explicitly delivered to students. (2) Students should have opportunities to utilize learned SRL strategies in real learning situations. (3) Intervention to promote students' SRL skills should be mandatory or strongly structured. (4) Having students successfully experience SRL skills is needed for regular application of SRL skills in their actual learning.

<http://eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED485062>

TLT Seven Principles Library

http://www.tltgroup.org/Seven/5_Time_Task.htm

HIGH EXPECTATIONS

The Virtual Classroom: What Works?

Eric Digest

Seagren, Al; Watwood, Britt

Abstract:

As technological changes in the delivery of instruction overtake colleges, thought needs to be given to maintaining the fundamental principles of adult education, especially regarding the role of the learner in the educational process. The trend toward electronically distributed education will make college a network of resources, rather than a place, while the widespread use of new technologies can be expected to improve the quality of instruction and alter the roles and responsibilities of faculty. As part of a doctorate in Educational Leadership and Higher Education, the University of Nebraska-Lincoln offers doctoral courses via distributed education, which as opposed to distance education is designed to improve the teaching-learning process rather than enhance existing systems. Using computer groupware and a programmed set of questions for discussion, students engage in virtual interaction and collaboration, while the teacher's role is to lead the group through a search for shared meaning. Major features of this form of distributed education include: (1) learning is based on dialogue in virtual interactive groups; (2) participants can access the group at their own convenience; (3) responses, comments, and arguments are written without the pressure of instant response; (4) collaboration is greatly improved over classroom-based instruction, since all students must participate; (5) problems of the classroom approach, such as gender dominance issues, minority barriers, and physical disadvantages, are also eliminated; and (6) poor student performance cannot be disguised.

<http://eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED407029>

TLT Seven Principles Library

http://www.tltgroup.org/Seven/6_Expectations.htm

Ohio Learning Network

http://www.olin.org/teaching_and_learning/communicating.php

DIVERSE TALENTS AND WAYS OF LEARNING

Adapting multimedia for diverse student learning styles.

Eric Digest

Glenn D. Blank; Soma Roy; Shreeram Sahasrabudhe; William M. Pottenger; G. Drew Kessler

Abstract:

Multimedia can accommodate diverse learning styles. By giving students different ways to learn material, we hope to attract more novices, especially women and minorities, to computer science. We designed a user interface that is independent of both book metaphors and familiar web browsers. It supplies sound and animation for sensory learners, while letting verbal learners disable sound or switch altogether to a JUST THE FACTS mode. Interactive materials include learner-controlled simulations of algorithms, links to programs that students can try immediately after learning related concepts and before exercises that make sure the learner has studied the programs, constructive exercises in which students build programs or models by dragging pieces into place, and inquiry-based exercises in which students learn by doing research, using the web.

http://portal.acm.org/ft_gateway.cfm?id=771721&type=pdf&coll=GUIDE&dl=GUIDE&CFID=77115489&CFTOKEN=31347421

Using bulletin boards for learning: What do staff and students need to know in order to use boards effectively?

Online Submission

Bunker, Alison; Ellis, Rod

Abstract:

Going online offers distance learners two new experiences: connections to other people and connections to world wide resources. Bulletin boards are one medium for connecting with other people. They are particularly useful for student-to-student interaction at the group level. They are often regarded as the electronic equivalent of an on campus tutorial or seminar.

In this discussion session, we will start by locating the rationale for the use of bulletin boards in current learning theory and outline a developmental model proposed by Salmon (2000a) for categorising bulletin board experiences and activities. Then we will describe the staff development program and invite comments. If one of the things staff need to be able to do is design good bulletin board activities, what advice can we give them? And finally, from our own perspectives, which bulletin board activities have worked and which haven't?

One outcome of the discussion session will be a useful list of bulletin board activities - both tried and tested as well as activities designed in the session.

<http://lsn.curtin.edu.au/tlf/tlf2001/bunker.html>

Technology for All: Successful Strategies for Meeting the Needs of Diverse Learners.
T.H.E. Journal (T.H.E. J) v. 32 no10 (May 2005) p. 20, 22, 24 ISSN: 0192-592X

Bowerman, Margaret

Abstract:

Strategies for meeting the needs of diverse learners through technology use are provided. The strategies relate to developing effective lessons, assembling work groups, and assessing diverse learners.

<http://firstsearch.oclc.org/WebZ/FSFETCH?fetchtype=fullrecord:sessionid=fsapp6-44828-enuj6ay8-m99dqc:entitypagenum=7:0:recno=3:resultset=3:format=FI:next=html/record.html:bad=error/badfetch.html:entitytoprecno=3:entitycurrecno=3:numrecs=1>