Annotated Bibliography


The authors explore how the behavior of participants in cooperative learning is affected by emotions caused by controllable and non-controllable causes for nonparticipation. The authors are from community colleges in the states of Illinois and Arizona. The study was done at a community college using six classes that were taught by the same teacher. All classes were communication classes that used cooperative learning approaches. Data was gathered by 2 surveys each one made of three parts 1) demographical information, 2) simulated situations and 3) actual class experience. It was found that for the simulated situations, participants had more negative emotions towards those that had controlled causes leading them to not want to assist those group members. It was also discovered that members who had experienced both causes were much more willing to help a member when the cause of nonparticipation was uncontrollable.


The author uses information from authorities on cooperative learning, best practices in engineering education, and interactive engagement to measure the effect that cooperative learning has on students in their final engineering course. This article was written for anyone interested in cooperative learning and effective teaching strategies for engineering. The study was done at the Universiti Teknologi, Malaysia where the disparate levels of readiness skills varied. Many students forgot programming as they had not had it since their sophomore year. The instructor taught them the basics of writing a simple program, and to use arrays, arithmetic tests and subroutines for a period of four weeks. The best way for the students to grasp a concept was to apply it. So for the rest of the course students were assigned to give presentations to teach
their peers. As Awang (2006) stated, cooperative learning in the form of projects and peer teaching was designed to address the disparate skills from entry skills, and at the same time the method used should also keeping the student’s interest in class, improving communication skills and improving self learning. It also enhanced team building, retention of the content, and improved self learning. The result was the passing of more than 95% of those tested.


The author, who is an Assistant Professor of English Education at Colorado State University, discusses the hypocrisy in our educational system that touts the benefits of cooperative learning for students yet elementary school teachers and secondary school teachers do not work cooperatively together. This has led to a completely different school culture from elementary school to secondary school and creates problems in our education system. The author knows this first hand since she has taught in both elementary and secondary schools. Cooperative learning can be a very positive and effective teaching strategy however in order to truly succeed, the elementary and secondary teachers and administrators must practice what they preach and work cooperatively with each other. Suggestions for adopting cooperative learning among elementary and secondary educators include the exchange of information, regularly scheduled meeting, sharing experiences and joint work, and providing teacher training and education, all between the 2 levels. The paper neglects to point out other factors that impact the school culture such as racism, bullying, socio-economic issues, puberty and so on. The recommendations have yet to be tested.


Dr. Jeremy C.E. Genovese, professor at the Department of Curriculum and Foundations at Cleveland State University, discusses the lack of attention to individual difference variables in advocating for particular teaching methods. He discusses two major methods: operant instruction and cooperative learning. He states that “serious questions must be raised about all research into
the relative effectiveness of different instructional techniques that does not adequately control for individual differences.” He admonishes advocates to “recommit to a program of vigorous research” and ends with a prediction that cooperative learning, being the latest innovation, will fall by the wayside because large numbers of students will be disadvantaged and this potentially valuable teaching technique will join the list of failed panaceas.


The author uses information from a variety of scholarly articles in the subject area to answer the question of whether the goals of cooperative learning are consistent with the needs of gifted students. The author finds that gifted students benefit cognitively and affectively by working with other gifted students, and that their participation in the cooperative learning environment mostly is of benefit to the average and below average students in class. When the gifted students are spending time teaching other students, they are not using their allocated time for high-end pursuits of their own. In contrast, an earlier study by Johnson, Johnson, and Smith concluded that cooperative learning resulted in more higher-level reasoning, frequent generation of new ideas and solutions, and a greater transfer of what is learning in one setting to another.


Kopp, Ertl and Mandl, all with the Institute for Educational Psychology in Munich, Germany, designed this study to test the assumption that learners get activated through self-directed cooperative work to construct and acquire knowledge, and that this can be accomplished using videoconferencing of the participants. The research subjects were undergraduate college students in Pedagogy and Psychology. The criteria being tested was the importance of having a cooperation script and/or a content scheme in the generation of a cooperative solution, and how well the group members applied their learning to similar criteria when working individually. While all participants improved during the cooperation phase, and groups with only 1 tool fairness
better than the group with neither tool, the group with both the content scheme and the cooperation script were best in almost all measurements, most importantly on individual learning and transference to individual ability in a like situation.


The authors and researchers from the Department of Information and Computed Education used data gleaned through their experiment by the use of student questionnaires, classroom observation journals, audio-recorded group discussions, students’ completed concept maps, and interviews with the students and instructors. The purpose of the research study was to compare the quantitative and qualitative treatment and control groups when conducting learning activities. The treatment and control groups were those student groups that did, and did not use a PDA. The study found that the handheld units did in fact enhance student attitudes and learning performance, but this would not be possible without the full support of a technology specialist. In contrast, an earlier study by Van’T Hooft et al, found that there was little proof from research that the use of handhelds for learning actually increased student achievement.


In this study Dr. William Riley, Associate Professor at the Division of Health Services Research and Policy, University of Minnesota, explores the effectiveness of cooperative learning on cognitive outcomes in a public health, graduate level, Web based course. The three cognitive domains studied were declarative knowledge, procedural knowledge and higher cognition. The researchers test three hypotheses based on the three domains of knowledge. The group studied was an eight week public health management course taught using WebCT, a course management program. All 47 students enrolled in the course agreed to be part of the study and were divided into two groups: the control group of 25 students and the treatment group of 22 students. The control group did all their course work independently and could not interact with any of the other students in the course (only the instructor). The treatment group were subdivided into six
cooperative work groups. All coursework except the final project assessment was completed within the work groups. The results showed that the treatment group (the cooperative group) scored less than 1% better when tested on declarative knowledge, 5% better on both procedural knowledge and higher cognition. Though the results seem negligible, the researchers state that “this research shows that cooperative learning experiences can be incorporated into distance education and results in advanced knowledge acquisition in the areas of public health inquiry, critical thinking, and problem solving when compared to self–study approaches.” The conclusion based on such negligible results with such a small research sample is indicative of the admonishment Dr. Genovese gives in his article to “recommit to a program of vigorous research.”


The author uses information from at least forty-five resources in the area of cooperative learning in general, and information specific to Jigsaw II, a strategy of cooperative learning. This article was written for an audience interested in the effects of cooperative learning on reading comprehension, vocabulary acquisition, and the motivation to read. This article reviews a study done on forty-four English as foreign language students. The study group spent 8 weeks with ten 60 minute sessions per week for a total of 4,800 hours on instruction led by a teacher knowledgeable in reading skills. The control group brainstormed ideas using visuals, charts to make predictions, creating titles and captions based on main idea, randomly formed teams of collaboration participating in expert discussions, and gave feedback to teammates. They were awarded certificates based on the improvement of test scores using their base line test score as ground zero. The findings did not confirm the hypothesis that cooperative learning through Jigsaw II activities would be more effective than whole class instruction in improving reading skills and vocabulary acquisition. Furthermore Jigsaw II was not found to be more superior to competitive and individualistic instruction. The researchers reported that “most of the studies that favored the Jigsaw method were reported by the developers of this method themselves and that the “studies that are usually included in the meta-analysis reports may not be representative of the research based on the method(s) under review” (Ghaith & Abd El-Matak, 2004, p.108). These are very strong accusations against the cooperative learning Jigsaw II method in particular. This article is unique in that it was one article that did not support cooperative learning through the Jigsaw II activities. Most articles that I read are in support of cooperative learning.

In this article, Implementing a Research-based Model of Cooperative Learning, the author looks on the subject of how the users own definition of cooperative learning affects the way that he/she uses it in the classroom. The author of this article did the study with the assistance of faculty, graduate students and others of Georgia State University. It was theorized by the author that cooperative learning taught by a researcher would be different when a classroom teacher used it in his/her classroom. The study was done with an 8th grade math teacher through surveys, interviews, and observation. It included both general and accelerated classes. There were 18 class periods looked at but only 13 had cooperative learning going on at that time. It was seen that the accelerated classes did cooperative learning about 60% of the time while the general classes did cooperative learning 40% of the time. It was found that the general classes were more likely to ask for assistance from the teacher while the accelerated classes rarely if ever asked for assistance. It was concluded that a teachers prior of teaching and the context of which he/she is teaching. This was explained by how the student ability and the actual content of the lessons shaped the instructors lesson plans.


Robert Slavin, noted educational researcher and current Director of the Center for Data-Driven Reform in Education at Johns Hopkins University, has shown that consensus far outweighed controversy in his comparison study based on 60 research studies lasting 4+ weeks and using identical assessments for both experimental and control groups. Wide-spread consensus in 3 major areas: 1-Student acceleration in achievement (grades K-9), if the learning structure included group goals and group success dependant additionally on individual accountability. Working together without differentiated tasks showed no achievement benefits. 2-Improvement was shown in liking/respect for others of different racial, ethnic, and academic backgrounds or abilities. 3-The acquisition positive personal indicators: raised self-esteem, approval of school/subject studied, increased time-on-task, improved attendance. Minor controversies included: 1-Effectiveness at all ages, since most studies have been on grades 2-9, with few relating to grades 10-12 and college. 2-Appropriateness for learning higher-order concepts with
some data showing this may be possible although most studies focused on basic skills. 3-
Successful college level cooperative learning may not require inclusion of group goals or
individual accountability.

database.

The author, a public health educator, Professor at the University of Hawaii at Manoa, and
former trial lawyer, explores the success of the non-profit Violence Prevention Through
Cooperative Learning project located on Oahu, Hawaii. This is a program that trains at-risk
teenagers reading, training and facilitating skills so that they are able to train other at-risk teens,
who then read select books to elementary school children followed by facilitated discussions
relevant to violence prevention. The qualitative study found that the at-risk teens who
participated in the program felt empowered as role models and felt they had made positive
contributions to their communities even some considering careers as teachers. A benefit of the
program is that it simultaneously offers peer-tutoring and cross-age tutoring which has been
found to reduce disciplinary referrals and increase confidence among at-risk teenagers. The
author found that the project is simple, inexpensive and has positive results. An in-depth
evaluation of the 4-year program has yet to be conducted. This study was based on 17 teenage
participants in the program.