

Group Position Paper 1

Condition of the World

Technology, Society and Education What kind of mental image is created when we combine these words together? What impact is technology and society having upon education? Is "integrating technology into the curriculum," a relative unfamiliar phrase for you? In the book, *Constructionism in Practice*, Kafai and Resnick state, "One of the main tenets of constructionism is that learners actively construct and reconstruct knowledge out of their experiences in the world. It places special emphasis on the knowledge construction that takes place when learners are engaged in building objects. Constructionism differs from other learning theories along several dimensions. Whereas most theories describe knowledge acquisition in purely cognitive terms, constructionism sees an important role for affect. It argues that learners are most likely to become intellectually engaged when they are working on personally meaningful activities and projects ... Constructionism also emphasizes diversity: It recognizes that learners can make connections with knowledge in many different ways." (p. 2)

Discussion Question

Based upon your combined experiences and what is being said by Jonassen and Land and Kafai and Resnick, what then should a technology integrated curriculum look like?

Working Process

Expectations

Members of your Discussion Group will work through asynchronous and synchronous communication to produce the group position paper. The Group Position Paper needs to be at least two pages and it will be evaluated by [this rubric](#).

The Discussion Group has specific design with each member having a specific role. The roles will rotate each assignment so that each person complete each role by the end of the semester. Your group is allowed to post messages only in your group discussion BB. Each member of groups must log on a minimum of two to three times per week and are expected to post substantive contributions to the group discussion. Simply saying "hello" or "I agree" is not considered as a substantive contribution.

Group Roles

For the first Group Position Paper, group roles have been randomly assigned by the instructor. According to alphabetic order, the first name in your Discussion Group member list is the Presenter, the second is the Team Leader, the third is the Commentator, and the fourth is the Observer. After completing the first Group Position Paper, The Team Leader will be responsible to assign roles for the next cooperative work. Please click [here](#) to review Roles of Treatise Group .

Note: The Presenter needs to create a Threaded Discussion and all other members need to response to each topic with the thread.

Technology in a Constructionist Classroom

Kari Milton, Daniel Stoffel, Melody Buckner, Melinda Schrambling

ETC 567 NAU

(An exemplary title page in APS format)

Abstract

The following paper will discuss how various forms of technology can be used to enhance learning in a student based learning environment using constructionist as the main theory of learning. Using the web as a tool for communication is explored. Web quests are examined as a tool of technology. The use of technology to publish students work is described. The ideas of negotiation and interpretation involving multiple perspectives are also explained. Finally, the ideas of distributed learning and the limits of technology are discussed.

(Very concise but information-rich abstract!)

Technology in a Constructionist Classroom

Integrating technology effectively in the classroom has been the basis of discussion of educators around the world. Today with the rising availability of computers and programs the question lies in what a technologically advanced classroom should look like. The use of technology should enhance the learning process in the schools. The use of technology combined with constructionist theories should enable students to build on each other's experiences and to create meaningful artifacts which will engage students in the learning process.

Kafai and Resnick (1996) based their strategies on constructivism and the roles that technology plays in learning. These theories take root from Jean Piaget, who asserts that knowledge is not simply transmitted from teacher to student, but actively constructed by the mind of the learner. Students don't simply receive ideas, instead they make them.

Technology as a Tool for Communication

Integration of technology in the classroom curriculum should be seamless. Technology should not overshadow the learning objective. Instead it should enhance the student's ability to learn. One way to use technology in the classroom is as a form of communication. Though the use of e-mail is one form of communication, it has its limitations. Because e-mail is sent to a specified group of people, it is limited to a select group and it does not allow for other people to view the discussion and decide to join (Evard, 1996).

Bulletin boards or broadcast environments offer communication without the limitations of e-mail. By being able to post information for anyone to see, bulletin boards allow students to locate and communicate with people who share similar interests. Anyone with Internet access and the ability to run searches is able to read all the different statements, questions and answers which can be posted on a bulletin board (Evard, 1996). A bulletin board is advantageous

because it allows students to participate at a level with which they feel comfortable (Lave & Wenger, 1991).

In the classroom environment, bulletin boards can be an invaluable tool. Use of this technology in the classroom gives the students an opportunity to share their expertise in particular areas, and gain a measure of appreciation in the community (Evard, 1996). Time restraints in a typical classroom do not always allow fostering of students' ideas. However, a bulletin board aids classrooms in which students have ample time to share and express ideas. Students also can gain insight by reading others' ideas and points of view (A very good point demonstrating how student learn with technology as a communication tool).

Web Quests

Another example of how the use of technology can help engage students is by using web quests in the classroom. A web quest is an activity on the Internet. Students are sent on a scavenger hunt of sorts to various websites to find information to answer a broader question posed by the teacher. For example in order for a student to learn about forensics, students will go to a central website that has various links to forensics related sites. By visiting these sites, students may be trying to answer the question of which area of forensics is the most interesting to them and why. These web quests can be introduced to students in elementary classrooms and can also be used in college classrooms for students to gain a deeper and greater understanding of various information and points of view.

The use of technology helps students construct their own knowledge. It takes the focus off of the teacher and puts it onto the student. In this way a student-centered learning environment is fostered. Instead of an omnipotent teacher (Do you think this kind of teacher exist?) who has all the information and imparts it to the students, students are forced to do

research to come to an understanding on a topic for themselves. (Very good ideas of integrating technology into the curriculum. The ideas and your argument will be more convincing if you could cite some references or use some research results.)

Publishing Students' Work

Another way technology can be used to enhance learning is to use it as a tool to publish students' work. For work to be meaningful to a student, the student needs to be aware that the project or artifact that he is creating will be shared with others. Educators can share students' papers and projects on the Internet for others to see. In this way, students are getting their work published. Instructors can take pictures of projects and post them on the net. Students can also create PowerPoint presentations or web pages of their own. Teachers can also post essays written by students. When students realize that their work will be published, it leads to professional artifacts which enhance learning. (The same comments here. Find some supporting references or research.)

Distributed Learning

As classrooms become more and more technology based there is a push towards distributed learning (Why? How does technology in classrooms relate to distributed learning?) This is quite common in colleges and has even become a way in which high schools have organized some of their classes. This educational technology program at NAU is a prime example of how education can be taught through distributed learning. However, caution needs to be approached by those who use this method. Many students, faculty and staff try to use the technology before they are prepared. Students enroll in online classes with virtually no computer or Internet experience. This is like taking a course which is taught in French without having learned the French language-- no one would expect you to succeed (Good metaphor). By the

same token, students often get frustrated and even seem surprised when they are asked to navigate the Web or do online research. They often experience problems simply because they have never learned how to use those functions. Sadly, the same types of frustrations occur with many instructors: some faculty teach online without the requisite knowledge required to do so.

There should be a technology proficiency requirement for both students who plan to enroll in online or web-enhanced courses and faculty who plan to teach them (I agree!). While this might seem like yet another burden to place on a student, it would be a disservice to allow a student to “jump in” to an online course without being sure he or she is prepared for it. The institution should be responsible for ensuring that students know what they are getting into. By the same token, faculty should be required to receive adequate training before teaching an online course as well.

Negotiation and Interpretation Involving Multiple Perspectives

The use of Knowledge Integration Environment (KIE) (Bell & Davis, 1996) uses web technology to support sharing of learner-constructed evidence to evaluate scientific phenomena. Students are initially provided open-ended questions such as “how far does light travel?” Rather than define and present the information needed to answer the question, KIE requires that learners induce personal, everyday experiences as a foundation for interpretation and explanation. Once learners generate explanations and examples, they can browse databases of evidence constructed by themselves, other students, and teachers. Learners review the varied and often conflicting evidence to determine whether it supports or contradicts their position. As divergent views are deliberated, learners inquire further to reconcile differences and refine explanations. KIE scaffolds the learning process by providing guidance, prompts, and opportunities to integrate and share personal experiences with formal concepts. Varied methods and perspectives are viewed

as critical to developing deeper, divergent, and more flexible thinking processes (Land & Hannafin, 2000).

(Delete spaces between the two paragraphs))

Limits of Technology

Though technology may be transforming and enhancing education in many parts of the country, it still lags behind in other parts. In the Los Angeles Unified School District there is a great disparity between schools located in Beverly Hills and schools located in Gardena (Where does this information come from?). In this school there is only one computer lab available for a student population of over 2,400. This lab can only be used for math classes. Teachers do not have Internet hookups in their classroom and most of the students do not have access to computers at home. Because of these limitations, students are not given easy access to computers. This is not fair and a slap in the face of the idea of equal education. There needs to be more funding to ensure all schools are given equal access to technology. (Do you think the digital inequality can be solved once schools are equipped with computers? How to interpret the paradox of high access and low use of technology?)

Conclusion

Technology holds many promises and much potential for use in the classroom, whether it be through the use of discussion groups and web quests or through the creation of web- or computer-based artifacts to support the constructionist environment. Still, technology integration should be tempered with careful thought to its use to support rather than hinder the curriculum (Good point!). Finally, both proper training and equitable distribution (Good point!) of technology should be considered when introducing technology into the classroom.

References

- Evard, M. (1996). A community of designers: Learning through exchanging questions and answers. In Y. Kafai & M. Resnick (Eds.), *Constructionism in practice: Designing, thinking, and learning in a digital world* (pp. 125-160). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kafai, Y. (Add a comma) & Resnick, M. (1996). *Constructionism in practice: Designing, thinking, and learning in a digital world*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Land, S. M. & Hannafin, M. J. (2000). Student-centered learning environments. In D. H. Jonassen & S. M. Land (Eds.), *Theoretical foundations of learning environments*. (pp. 1-23). Mahwah, NJ: Lawrence Erlbaum Associates.
- Lave, J. & Wenger, E. (1999). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.

Hello, Melody, Kari, Melinda, and Daniel,

Congratulations on the success of the first cooperative paper! Please see my specific comments in each of the grading categories below. Thanks for the commitment and great contributions from all of you. I am looking forward to your next group paper.

The grade for the individual accountability will be sent to you separately through emails.

Content and Ideas (9/10)	Shows professional understanding of topic; interrelationships of learning theories and technology integration are well demonstrated; supports generalizations with scholarly information, but more related references are expected. Although the paper shows your group ideas about the technology-integrated curriculum, your group position would be much clearer if it was stated more explicitly.
Organization (5/5)	Smooth flow of ideas; paper is cohesive; includes introduction, conclusion, transitions, and headings.
Mechanics (3/3)	Close to the exemplary use of the APA format. Only few minor flaws existed. I made corrections for you so please be more careful about them next time
Timely submission (2/2)	Submitted on time