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Technology in the Classroom: The Teacher's Perspective

Adam Tollison
atollison@hotmail.com

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The Annotated Bibliography

Research in Progress for English 1301: Composition 1

Faculty Mentor: Lisa Roy-Davis Ph.D.

The following papers represent research work begun by students in English 1301, the first course in the two-semester composition sequence at Collin College. Students in 1301 are introduced to the concept of academic research by learning to ask research-focused questions and then use the library resources to find sources that provide answers.

In what follows, students have chosen research questions based on their areas of interest and expertise and then assembled a group of five sources that begin to answer those questions. Being able to write this work involves close reading of textual sources, notetaking, and working on summary and analysis skills so that the arguments and focus of each work can be adequately represented in each annotation. Proper citation format must also be followed. Students are also encouraged to see the connections between the sources by including sentences that indicate how the authors might engage each other's ideas in conversation.

The annotated bibliography assignment is separate from a research paper in that it works to focus students on finding and understanding sources before the research paper writing process begins. In this way, students are encouraged to understand the research process as a first step taken separately from the research paper composition process. Students are also encouraged to connect the work done on this project to other research projects in the disciplines they aim to major in.

Adam Tollison

Professor Lisa Davis

English 1301

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Technology in the Classroom: The Teacher's Perspective

In elementary-school classrooms around the world, technology is still limited as

to how much students use it and how much technology there is to go around. So one

would ask, why is not technology present in more classrooms? To understand the

problems of availability and adaptability of technology into learning, I have collected and

reviewed the following resources. Together, these articles demonstrate that, if the

teachers are confused with the new technology brought into their classrooms, either

they will not use the equipment or the tools will slow both the teachers and the students.

The articles written by Filiz Varol, by Angie Garner and Jennifer Bonds-Raacke, and by

Jonathan Paver, David Walker, and Wei-Chen Hung focus on how teachers approach

the use of technology in the classroom, whereas "The Evolving Classroom: A Study of

Traditional and Technology-Based Instruction in a STEM classroom" (by Timothy

Devlin, Charles Feldhaus, and Kristin Bentrem) includes research about how students

are instructed with non-traditional methods. Lastly, Begum Cubukcuoglu's article

"Factors Enabling the Use of Technology in Subject Teaching" focuses on interviews

with teachers and on their opinions about technology. This question of how technology

may be adapted for classroom use remains important because learning continues to

move forward, so, as a result, teachers must keep up with the curriculum. With

technology in the classroom, theoretically, the teachers' workloads could be reduced and they would have time to work individually with students. Each of these sources relates to how the teachers cope with technology, but they differ in how the researchers focus on teachers. Together, these sources argue that, for technology to have any benefit, the teachers must adapt to having these tools in the classroom.

Cubukcuoglu, Begum. "Factors Enabling the Use of Technology in Subject Teaching."

International Journal of Education and Development Using Information and

Communication Technology 9.3 (2013): 50–60. *Education Full Text (H.W.*

Wilson). Web. 27 Oct. 2014.

Cubukcuoglu conducted semi-structured interviews with teachers and provides information about how they can integrate or adapt to Information and Communication Technology (ICT) in the classroom. Cubukcuoglu outlines how teachers may be persuaded to use ICT; several points include factors such as this observation: that "… to be able to use new technologies appropriately in teaching, we need to have good in-service training" (55). In other words, when teachers request a form of education for the ICT that they will use, they need adequate training. This article answers the research question in that, to integrate technology in the classroom, the teachers must be able to teach while using the ICT for both their and the students' benefit. In making this claim and observation about teacher training, Cubukcuoglu would agree with Devlin, Feldhaus, and Bentrem that the integration of technology, or rather the rate that it is put

into the classroom, depends mostly on teachers; however the authors' opinions would

split there, as Devlin, Feldhaus, and Bentrem would express that the adaptability of

students to the new technology is also a big variable.

Devlin, Timothy J., Charles R. Feldhaus, and Kristin M. Bentrem. "The Evolving

      Classroom: A Study of Traditional and Technology-Based Instruction in a STEM

      Classroom." *Journal of Technology Education* 25.1 (2013): 34–54. *ERIC.* Web.

      27 Oct. 2014.

Instead of explaining how the technology will be integrated into the classroom, Devlin,

Feldhaus, and Bentrem describe an experiment that compares a situation in which

students are given video instruction versus verbal instruction. The experiment provides

some evidence to prove that the students who received instruction by the video asked

fewer questions and performed the experiment better. The article thus points out some

benefits that result when students use technology in the classroom. However, Devlin,

Feldhaus, and Bentrem also offer an explanation of why the classrooms of today should

require technology when they write, "Yet, many teacher-training programs are centered

on industrial models that existed during the mid-twentieth century" (Devlin, Feldhaus,

and Bentrem). Noting this difference in approach is important when considering

technology implementation. Like Garner, Devlin, Feldhaus, and Bentrem would argue

that teachers should limit technology in the classroom; however, Garner would counter

at that point and say that it is mostly older teachers who limit technology, in that they do

not know how to use the technology. The arrival of a new generation requires the school—not the students—to change.

Garner, Angie M., and Jennifer M. Bonds-Raacke. "Influence of University Level Direct Instruction on Educators' Use of Technology in the Classroom." *Reading Improvement* 50.4 (2013): 145–157. *Education Full Text (H.W. Wilson)*. Web. 27 Oct. 2014.

Garner and Bonds-Raacke focus on how teachers measure up per statistics, when the focus is on integrating technology into their classrooms. They present one example of a study by an organization that explains, "According to the National Center for Educational Statistics (NCES) (2000), only one third of teachers surveyed indicated they felt well prepared to integrate technology into their classrooms" (146). In other words, without immersive training with the technology, teachers tend to feel underprepared to utilize the available technology. Garner and Bonds-Raachke are concerned with the question of whether teachers themselves can actively bring in technology and if they will be able to utilize the technology to the full potential that the technology was originally intended to bring. They state, "The purpose of the current study was to investigate the effect that receiving formal education at the university level has on teacher utilization and implementation of technology in the classroom" (153). In Garner and Bonds-Raacke's view, Paver, Walker, and Hung's attempt to argue that teachers slow the process is somewhat misguided because no other variables are considered. Garner and

Bonds-Raacke would counter that the whole classroom changes with time, so more variables must be considered in any study of the issue of adaptation.

Paver, Jonathan, David A. Walker, and Wei-Chen Hung. "Adjunct Faculty

Characteristics that May Predict Intention to Integrate Technology into

Instruction." *Community College Journal of Research and Practice* 38.10 (2014):

859–872. *Education Full Text (H.W. Wilson)*. Web. 27 Oct. 2014.

Paver, Walker, and Hung undertook a study focused on the question, "Which demographic characteristics predict community college adjunct faculty intention to integrate technology into instruction?" (865). Their results show many determining factors, including teachers' years of teaching experience, gender, and age. The study also found that few of those factors have an effect on whether computer-assisted instruction is integrated into the classroom. However, the results varied considerably, with one group finding that age was a significant influence on if teachers used the Internet while teaching, while another group found no major significance on age (862). Because the results sometimes contradict, the authors point out, "more research is required" (863). The factor of technology implementation, according to this article, depends mainly on the confidence level of the teachers. In other words, if teachers feel that the technology makes a difference, they tend to more frequently prefer to use computers and materials like PowerPoint presentations. Like Paver, Walker, and Hung, Varol suggests that hard evidence through research is necessary to understand the

potential of technology. However, Paver, Walker, and Hung's understanding ends at that point because they report that teachers are the only variable in successful implementation of technology in the classroom.

Varol, Filiz. "Elementary School Teachers and Teaching with Technology." *Turkish*

   Online Journal of Educational Technology 12.3 (2013): 85–90. *ERIC*. Web. 27

   Oct. 2014.

Varol's study was to "investigate teachers' general attitudes towards technology and the relationship between teachers' ICT engagement and their beliefs" (88). The information collected answers questions about how much do teachers use computers in an average day or if they have taken computer courses. According to Varol's study, most teachers "who hold more traditional beliefs are expected to implement low-level of ICT in their classroom practices, and teachers with more constructivist beliefs enrich their instruction with ICT at high level" (86). (The term "constructivist" means building on previously acquired knowledge.) Varol emphasizes that teachers control how much and how quickly technology is put into the classroom, but she also hastens to add that teachers must adapt to the changing times because new students come in every year, while the teachers remain.