

GED 500

Article Critique #2 Faculty use and integration of technology in higher education

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Citation

Kyei-Blankson, L., Keengwe, J., & Blankson, J. (2009). Faculty use and integration of technology in higher education. *AACE Journal*, 17(3), 199-213. (ERIC Journal No. EJ863117)

Abstract

This study was based on research that examined students skills on technology use, expectations, and also the evaluation of faculty use of technology to support the education and instruction in the classroom at higher educational institution. The study also provides some additional information on the technology integration in the courses to enhance student learning outcomes with instruction. This study was performed at a large public university in mid-west. State-of-the-art technology resources and support services provided by the institution to both students and faculty. Survey methodology data collected and analyzed by the researchers. A total of 539 students responded to the survey - 73% women and 27% men. The research purpose was intended to help faculty identify effective strategies that could support, improve and also help academic programs. Net Generation students were selected for this research study. This research study was conducted in a technology based educational setting. It has led to improvements in learning and teaching with technology. Most of the information from this research study gathered has been mainly from faculty and not from the student's perspectives. Both quantitative and the qualitative data was collected in this research study. At the end of this study, findings and evidences of the results suggested that students' skills in technology use are significantly different from their instructors.

Research Question(s)

- 1) Is there a significant difference in students perception between their own technology skills and faculty's technology skills ?
- 2) Is there a significant difference in students' technology use and skill between those of their instructors ?
- 3) Does faculty's use of technology match students' expectations ?
- 4) Does faculty integration of technology into instruction impact students' learning experiences ?
- 5) Do students have higher expectations in technology use than the faculty's perceived actual use of technology ?
- 6) To what extent do students use technology ? (One of the research question from the

study)

7) How do students perceive their own technology skills in comparison with faculty's technology skills ? (One of the research question from the study)

Summary of the Research Design

This type of research study is a **quantitative and qualitative, non-experimental research design study with a relationship/difference representation (comparing two groups; student's and faculty technology use and skills)**. This study has at least a couple of research questions. They do a little comparing, but not statistically. It's more of a qualitative study with some non-experimental descriptive thrown in.

Non-probability and purposive sampling method more likely convenience – they didn't really say how they chose the sample has been used in this research study because not everyone in the population of the school has a chance of being chosen. This type of sampling is often used in education, because researchers may not have access to all the information needed to do a probability sample. Purposive sampling is used when the researcher is purposely choosing a particular group of people (in this study students from Net Generation were chosen). Purposive sampling is most popular in qualitative research, where it is vital to find more cooperative participants (539 Net Generation student users were participated in this research study). The goal of purposive sampling is usually to find people who are willing to participate. A total of 539 Net Generation technology use students were willing to participate to this research study.

There is only **one independent variable**; which is technology skills. The independent variable in this study has only one value which is a "web survey" that distributed to students through campus email. Because of the qualitative and descriptive nature of this study, you don't really have to say much about variables.

There are **two different dependent variables**; one of them is expected use of technology and the other one is observed use of technology.

This type of research study called **quantitative research** because data is in the form of numbers pertaining to data analysis of technology use and skills and Likert scale scores. Data was coded and prepared for analysis precisely using the statistical package for research software program SPSS.

This type of research study also called **qualitative research** because data was examined for themes. Another data was collected from observations in this study as a qualitative research.

Critique of the Research

This article was clearly written and the audience for this article would not have a problem understanding the article. This research paper was mostly written using jargon and research study results were easier to understand.

This study seems to be important in enhancing the use of technology for students

and faculty. I have not learned much from this study since it was too generalized in my opinion. The results of this study suggests that students' technology use and skill are different from those of their instructors.

The research questions is clearly stated in this study and as well as their objective, which is to find out if there is any significant difference in students' technology use and skill between those of their instructors.

The literature review is related to the research questions and the problem and closely matches this research study, makes good points, offers effective suggestions and supports the review for this study.

Sampling methods for this study was carefully was chosen for the purpose of this study. Specifically, Net Generation students who are already using technology were chosen.

Since this study is a non-experimental research design-study, I did not find very significant threats to internal validity identified in this study, but some did take my attention and are worth mentioning:

Net Generation students were randomly selected by the researchers. Selection was an internal validity because the wide range of ages of participants creates an inherent difference between groups from the beginning. Skills, prior knowledge and experience created a sample bias in this study in my opinion. Students were willingly allowed to participate to this web survey, who had the highest interest or experience. But we do not see any students participate in this web survey or were chosen that had less experience and or who had has less skills in technology. If they were participated too, I think, this factor may have affected the outcome of increased the expectations levels of the technology use. There is enough information given to "replicate" the study.

Validity of the content obtained and reviewed carefully by the faculty members in the field of educational technology. Restructured survey format, and revised survey items used in order to improve the clarity of this web survey is a good decision in order to get a better clarification. Over half of the variability was internally consistent or reliable. It is also important to see that faculty and student names were not disclosed anywhere on the survey for confidentiality purposes.

Data charts helped to see the quantitative side of the research and some significant students comments at the last part of the paper provides some qualitative research part of this study while comparing the positive and negative effects of technology use by the faculty members and instructors at their institution.

Evidence from this study is very clearly stated at the end of the paper in the discussion part. Also, researchers clearly stated that the faculty is using technology at a lesser rate than expected by their students and technology use in instruction may have either a positive or negative effect on students' learning. They clearly further states that there is need for faculty to gain primary technology skills in their instructional practices

by taking technology related courses provided by the IT department or educational technology department. Researchers found that not only will technology be more helpful and useful when teaching or learning but it will also help instructors be more effective when creating their instructional practices and also enhance student learning outcomes.

Last but not least, although the researchers did not mention and noted in the research paper what was exactly included in the web survey. We, as readers and students who are analyzing this research paper wouldn't know the questions that have been asked to those students in the web survey. What type of questions, how many questions etc. They could have added the web survey sheet at the end of this study so we could have an idea of the type of questions answered by the students. If I had to conduct the study over again I would make sure that I am not limiting myself to only one university. Although the study focused on one topic and subject, if the study is not applied to a broader range in population, the study is a threat because it is limited in my opinion.