Evaluation of HP Grant Initiative

Design of Evaluation of Hewlett Packard Technology for Teaching Grant
Brent A. Eldridge
The Hewlett Packard Technology for Teaching Grant Initiative is the first model in which mobile technology is provided for significant use as a teaching tool in a “general education” class at Bluegrass Community and Technical College. This Teaching Grant demonstrates that mobile technology can have widespread use outside of computer-related classes. The use of this HP funded equipment will allow BCTC to demonstrate the effectiveness of mobile technology in enhancing both student achievement and the instructor’s ability to effectively deliver course content in chemistry.
Program Description

Specific Goals

- Redesign chemistry lab experiments using mobile technology
- Demonstrate student proficiency in using mobile technology by collecting data in real-time, analyzing data using software, and communicating results
- Illustrate a relationship between science and technology
- Determine changes in students attitudes toward technology
- Promote use of mobile technology by presenting program at local and state meetings
Program Description

The Grant Initiative is expected to benefit:

- Hewlett Packard in demonstrating and promoting novel educational ideas on the uses of mobile technology
- Bluegrass Community and Technical College for enhancing student learning through cutting-edge technology
- Principle Investigator and Cohorts in having access to and developing new teaching strategies based on mobile technology
- Students will benefit by using mobile technology to collect real-time data, communicate results and develop a relationship between science and technology
Evaluation

- Record the number of lab experiments converted to using mobile technology each semester for the next 12 months in all laboratory courses offered at BCTC
- Document the specific applications of the mobile technology both in the lab and the classroom
- Record the increased use of mobile technology in the lab and classroom each semester
- Place questions on midterm and final exams in courses using mobile technology to determine student’s understanding of mobile technology and its applications
Evaluation

- Determine student’s attitudes in using mobile technology through pre and post testing
- Collect student’s and instructor’s opinions of the added value of mobile technology through pre and post testing
- Record suggestions for alternative applications of mobile technology to enhance learning by students and instructors
- Record secondary and unintended effects from the use of mobile technology – positive and negative group interaction and student satisfaction with the laboratory facilities
Evaluation

- Collect data on presentations for the use of mobile technology-number of people impacted, where presentations were made, audience, and questions and suggestions posed by audience

- Create accessibility to use mobile technology by other disciplines at BCTC and collect data on usage

- Record costs of presenting and promoting the use of mobile technology in academia
Questionnaire

- Do you own a computer? _______________
- If yes: Is it a laptop, tablet or desktop? If No, skip to #
- What are your three most used programs?
  - How many hours do you spend on your computer?
  - Break down the amount of time spent on each program
- #Have you ever used a tablet personal computer?
- What would be the greatest advantages for tablet computer use?
- What are the advantages of a tablet pc over a laptop? Over a desktop?
- Is there a need for tablet personal computers in science?
- Give examples of how one might use a tablet pc in science courses?
- What would be the advantages of tablet pcs in the science courses?
- Do you believe students need table pcs in the classroom or lab?
- How much would you pay for a tablet pc?
- If a tablet pc’s cost was part of your tuition would you be willing to pay a wholesale price for a tablet pc?
Summary

Ultimately, this program is evaluating the merit and worth of implementation of mobile technology in academia. This evaluation hopefully will shed light on the impact of implementing this technology initially in a laboratory environment. With refinement of this implementation and reflection on the impact to the students, instructors, and institutions, it is hoped this technology will gain acceptance and prove its usefulness beyond the laboratory. From a consumer point of view, it is hoped that consumers will agree that this technology has a high benefit to cost ratio.