

Design Idea

Researchable Question:

- How well will the use of Web 2.0 Technologies be to provide relevant staff development in a timely manner for classroom teachers regarding the use of technology?

Importance of the Study

- Need for study
 - There is an increase in new technologies available for classroom use.
 - School administrations have greater expectations for teachers to use new technology.
 - There is an increase in technology use of students.
 - Students are more engaged through the use of technology
 - Teachers are dissatisfied with the current practices of professional development.
- Feedback
 - Current staff development procedures seem an ineffective when teaching technology.
 - Teachers need to have proficiency with new technology as well as be able to apply it in their instruction.
- Impact following study
 - Effective staff development will:
 - Improve teacher's view of technology.
 - Increase the use of technology
 - Improve engagement during instruction.

Context of the Study

- Staff development offerings at a k-12 public school
- Staff development is offered to k-12 classroom teachers
- Teachers are required to use new a new technology
- The staff development is the teacher training associated with this new technology.

Methodology of the Study

- Quantitative Research
 - Provide a comparison between those participating in Web 2.0 staff development and regular staff development.
 - Indicate levels of use, ease of implementation, and attitude toward process
- Quasi-Experimental Study
 - No random assignment of the two groups, but attempt to make similar groups
 - The method of staff development will be the independent variable
 - Traditional Training vs. Web 2.0 Training

Data Collection

- Techniques
 - Survey
 - Subject will participate in an initial survey
 - Self Assessment of implementation of technology
 - Each subject will be required to implement the new technology into their instruction and submit 3 lessons that use the technology.
 - Post Survey
 - Following the staff development and implementation process, the subjects will self assess the overall learning process of the new technology.

- Sources
 - Survey Results
 - The data will give some initial attitudes, proficiencies, and other characteristics that will be helpful in identifying similar groups to conduct the study.
 - Rubric results from implementation
 - The effectiveness of the teachers' implementation of the new technology will be assessed to give a sense of their proficiency with the technology.
 - Post Survey Results
 - This data will include final attitudes, and proficiency with technology. This will also provide an overall reflection of the staff development method that was used.

Instruments

- Initial Survey
 - This survey will assess the subjects:
 - Prior knowledge of the technology
 - Attitude toward implementing the technology
 - Level of technology use
 - Experience
 - Grade level

- Assessment of Implementation Rubric
 - This rubric will assess the subjects implementation of the technology in the following areas:
 - Mastery of technology tool.
 - Ease of use
 - Level of use of the technology tool in instruction.
 - Application of the tool within content of the lesson
 - Student use of the tool during instruction.

- Self Assessment/Post Survey
 - The self assessment will assess the subjects view of their:
 - Attitude toward the technology
 - Overall effectiveness of staff development method in learning the new technology.

Participants

- Subjects
 - Brookwood High School
 - High school classroom teachers
 - Mathematics Department
 - Total: 28 teachers divided into two groups of 14.
- Characteristics
 - Varying amounts of prior knowledge in using technology
 - Varying amounts of technology implementation into instruction
 - Various attitudes toward technology
 - Varying amounts of technology usage
- Selection Process
 - All math teachers will be divided into two groups based on their initial surveys
 - There will be an attempt to create two similar groups using the following criteria:
 - Prior Knowledge
 - Level of experience
 - Grade level
 - Attitude toward technology