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Enhancing Active Collaborative Classroom Learning with Tablet PC Technology

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Enhancing active collaborative classroom learning with Tablet PC technology

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Specific Aims

Aim 1: Describe graduate student and faculty perceptions of using tablet laptop technology to enhance active collaborative classroom learning.

Aim 2: Identify supporting structures and processes for using tablet laptop technology to enhance active collaborative classroom learning.

Research Design
Exploratory
Sample

- Ten (10) full time graduate students.
- 9 female; 1 male.
- Age range: 25-45 years.
- Cohort for 1.5 years.
- Experienced in collaborative learning.

Data sources

- Survey.
- Focus group.
- Student presentations.
- Instructor self-reflective diary.
Materials

- Four wireless tablet PCs.
- Wireless internet network.
- LCD projector wireless adaptor.
- Student guide to tablet PC.
- Authentic problems.
Classroom activities

- Tablet PC wireless internet and digital writing features used by instructor for lectures.
- Students used wireless tablet PCs.
  - Sixty minutes during selected classes.
  - Small collaborative groups.
  - Semi-structured real-world problems based on course outcomes. Each problem included a scenario, questions, and links to appropriate web sites.
  - Used tablet PC to create and present powerpoint presentations to entire class.
Results

- Students analyzed and synthesized content.
- Students enthusiastic of in-class collaborative problem-based learning using wireless tablet PC technology.
- Unreliable classroom wireless sub-network to link LCD and student laptops. IT staff recommended using hard wire when available.
- Instructor used tablet PC digital pen for powerpoint slide lectures.
- Students did not use the tablet PC digital pen technology during their presentations.
Conclusions

- **Students need time to learn new technology such as tablet PC digital writing features.**
- **Students prefer to use personal laptops rather than unfamiliar technology provided by the instructor.**
- **Instructors require time to gain skill in using new technology such as tablet PC digital writing features.**
- **Developing problem-based authentic learning activities is time-consuming, especially to obtain expert review and locate appropriate web sites.**
- **Instructor/IT staff collaboration is vital prior to and during course for equipment preparation and continued support.**
References

Study examined and exempted from review by the University Committee for the Protection of Human Subjects in Research.

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