Digital Media Curriculum Development Project

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Goal: To develop a digital media curriculum that integrates science behind the digital media creation for various disciplines.

Methods and Strategies

- Map out the common ground of the science of digital media of various perspectives into a primer module, from which branches out into discipline-specific ones.
- Connect between concept and application.
  - Use daily life experience to explain abstract scientific concepts.
  - Connect between concept and application.
  - Use materials that students have found most helpful:
    - Primer (Common Ground)
    - Computer Science Module
    - Art Module
- Emphasize task-oriented over procedural-oriented learning of application tools.
- Mesh in the visual aids with practice exercises or associate them with worksheets to allow practice of retrieval of knowledge.
- Using Conceptual Frameworks in Understanding by identifying

Findings

- Materials that students have found most helpful:
  - Interactive tutorials
    - Use of tangible and concrete examples
    - End-of-chapter review questions
    - Worksheets associated with the interactive tutorials
  - Methods of Assessment
    - Pre- and post-tests are of limited usefulness.
    - Recording of on-screen activities and video-taping of students working in groups are found to give most useful information on how students apply the materials to solve problems
  - Pre-Test as a useful learning tool by pre-exposing the students to the key terms and concepts

Pilot-Testing Sites included 4-year universities, community colleges, high schools, digital art classes, computer science classes, digital media programs. In general, the pre- and post-test results indicated that the students who used the materials were successful in learning that content.

Example quotes of student feedbacks that support some of the findings and guided the revision of the materials:

- "I really enjoyed reading the chapter, because I have always felt somewhat clueless as to the vocabulary used in talking about computers, and now I feel a little more comfortable.  I felt this was a good introduction and now the course can continue to expand on that.  I do not think that the text was clear in its presentation of information that I had difficulty with in my previous course on computer applications.  The tutorials also helped for understanding a lot better...I enjoyed the interactive lesson because it gave me the ability to use the subject matter and practical exercise, a very helpful tool for memory retention...Especially when it came to the bit/byte/binary stuff. I didn't see how knowing the binary system has much to do with making graphics. But other than that the examples that were given were very helpful for me to understand the concepts more...I felt that the chapter example was very helpful for understanding the concepts more...I enjoyed the interactive lesson because it gave me the ability to use..."