Chapter 7: Evaluating Educational Technology and Integration Strategies

Chapter Objectives (slide 1 of 2)

- Identify sources of information for evaluating educational technology and digital media
- Outline the considerations and tools used to evaluate software applications
- Describe and explain the key criteria used to evaluate Web resources
- Describe the tools for evaluating the effectiveness of technology
- Compare and analyze the methods used to evaluate student projects

Chapter Objectives (slide 2 of 2)

- Identify different technology integration strategies by classroom layout and design
- Define and describe the value of a curriculum page
- Describe ways to integrate technology into specific curriculum subject areas
- Describe authentic assessment tools for student projects
- Identify and compare possible sources of funding for classroom technology

Evaluating Educational Technology

- Determining if the technology is appropriate and enhances the teaching and learning process
- Evaluate before, during, and after instruction

Evaluating Educational Technology

- Numerous resources and technologies to choose from
- School districts and state Departments of Education have
- Lists of recommended software

Evaluating Educational Technology

- Professional educational organizations
  - Local, state, regional, national, and international educational organizations
  - Web sites for organizations
Evaluating Educational Technology

- **Catalogs**
  - Provide information about how to use products
  - Free by request

- **Colleague Recommendations**
  - Discuss issues with other educators
  - Unbiased, first-hand experience

- **Published evaluations**
  - See company’s Web site
  - Educational journals

**Chapter 7: Evaluating Educational Technology and Integration Strategies**

Evaluating Educational Technology

- **Conferences**
  - National and state organizations
  - Presentations
  - Exhibitors: Meet representative from hardware and software companies

**The Web**

- Mailing lists
  - EDTECH
- Forums
- Newsgroups
- Discussion groups
- Listservs
- Wikis
- Blogs
- Webinars

**Evaluating Software Applications**

- Free trial versions
- Software evaluation rubrics
  - Detailed assessment tool

- See rubric next slide

**Content**

- Is the software valid?
- Relate content to school’s and state’s specific curriculum standards and related benchmarks
Evaluating Educational Technology

Evaluating Software Applications

- **Documentation and technical support**
  - **Documentation**: Printed or online information
  - **Technical support**: Telephone or Web support

- **Ability levels and assessment**
  - Can software be used with various ability and academic levels?
  - Can software adjust the academic level and students move through the skills

Evaluating Educational Technology

Evaluating Web Resources

- **Authority**
  - Is the author clearly identified?
  - Examine the credentials of the author or organization of the Web site
  - Has the author or organization listed experience, position, education, or other credentials?

- **Purpose and Objectivity**
  - Is the content provided as a service?
  - Is the content unbiased?
  - Typically avoid religious/political affiliated sites.
Evaluating Educational Technology

Evaluating Web Resources

- **Content and Learning Process**
  - Is the content valid and appropriate?
  - Does the information relate to your needs?
  - What topics are covered?
  - For what level is the information written?
  - Do the links within the site add value?

- **Audience and currency**
  - Is the content suitable for your students?
  - Is the content up to date and timely?

Evaluating Educational Technology

Evaluating Web Resources

- **Design**
  - Web effectiveness
  - Web Evaluation Rubric
  - Student Web Site Evaluation Form
    - sample forms on next slide

Evaluating the Effectiveness of Technology Integration

Assessment Tools for Evaluating the Effectiveness of Technology Integration

- Measure student performance
- Reliable assessment

- **Traditional assessment**
  - Testing

- **Alternative assessment**
  - Authentic assessment (performance based assessment)
  - Project-based assessment
  - Portfolio assessment
  - Checklist
  - Rating scale
  - Rubric
Evaluating the Effectiveness of Technology Integration

Tools for Evaluating the Effectiveness of Technology Integration

- **Teacher observation**
  - Observe motivation
  - Observe how long students work on an objective

Evaluating Technology-Based Student Projects

- **Integrated learning systems (ILS)**
  - Automatically track student progress

- **Assessment rubric**

Evaluating the Effectiveness of Technology Integration

Evaluating Technology-Based Student Projects

- **Evaluating content**
  - Based on your standards and benchmarks
  - Review punctuation, grammar, spelling, coverage of material, presentation of the material in a logical order, and specific information about the author

- **Evaluating planning**
  - How do you want your students to plan?
  - What tools will the students use?
  - Software tools (Inspiration)
  - Visual learning techniques

- **Evaluating creativity**
  - Evaluate originality, imaginative and innovative approach, and artistic abilities
  - Color, clip art, and artwork should strengthen content
Evaluating the Effectiveness of Technology Integration

Putting it All Together - Evaluating Technology Integration

- Ms. Vicki Osborne’s classroom
  - One computer and 26 students
  - Block schedule

Ms. Vicki Osborne’s goals for the lesson

- Students work in groups
- Use reference materials and Web resources
- Identify three major campaign issues
- Provide personal facts about the candidate
- Create a group digital media presentation
- Use correct grammar, spelling, and punctuation

Ms. Vicki Osborne’s lesson

- Brainstorm to develop a concept map

Evaluation rubric

- Flowchart or storyboard
- Each group presents their project in the media center

Integration Strategies

- Teachers must become facilitators of learning
- Use technology to enhance learning environment
- Put technology at point of instruction
- Many mixtures of technology

One-Computer Classroom

- Use the computer for classroom presentations and demonstrations
- Introduce new concepts
- Students use to present assignments, projects, and research activities to the entire class
- Maintain class records, create presentations and projects, do research, and communicate with other teachers
Integration Strategies

One-Computer Classroom
- Internet access
- Educational application software
- Enhance lectures and presentations
- Use the computer as a teaching assistant
- Foster group and cooperative learning
- Write an ongoing story
- Create a class blog
- Start a class newsletter
- Maintain a student database
- Teacher productivity tool
- Optimize computer lab time
- New emerging technologies

Integration Strategies

Multicomputer Classroom
- Multiple learning centers
- Integrate other technologies
- Miss Julie Davis’ classroom
  - Digital camera
  - Web research centers
  - Develop presentations
  - Microsoft Publisher

Integration Strategies

Computer Labs
- All students have hands-on experience
- Often used to teach technology skills or subject-specific skills
- Integrate computer-related skills into subject-directed curriculum areas
- Example: Web scavenger hunt

Integration Strategies

Curriculum Pages
- Strategy for implementing the Internet into the classroom
- Teacher created document that contains hyperlinks to teacher-selected-and-evaluated sites that are content and age appropriate

Curriculum Integration Activities

Creating Lesson and Project Plans
- Must integrate technology into lesson plans and activities
- Educator’s Reference Desk
- Lesson plans and activities can be found on the Web

Curriculum Integration Activities

Creating Lesson Plans
- **Language arts integration**
  - Reading, writing, listening, viewing, speaking, and literature
    - *Extra! Extra! Know All About It.*
- **Social studies integration**
  - History, geography, civics, and economics
    - *What Wonderful Webs We Weave*
Curriculum Integration Activities

Creating Lesson Plans

- Mathematics integration
  - Basic number concepts, measurements, geometry, algebra, calculus, and data analysis
  - *The Business of Professional Sports*

- Science integration
  - Physical sciences, earth and space sciences, and life sciences
  - *Let’s Think as a Scientist*

- Business integration
  - Eating Healthy!

- Arts integration
  - Visual and performing arts including drawing, painting, dance, music, and theater
  - *The Theory of Color*

- Physical education and health integration
  - Basic health and physical education literacy
  - *Eating Healthy!*

- Exceptional education integration
  - All curriculum areas with adaptations made for students with special characteristics or special needs
  - *Rain Forests Are in Trouble*

- Interdisciplinary Integration
  - Includes two or more academic disciplines or curriculum areas to form a cross-discipline or subject-integrated lesson
  - *Natural Disasters Occur Everywhere*

Finding Funds to Support Classroom Technology Integration

- Fund-raising Drives and Contests
  - Partner with local businesses
  - Small amounts of money can go a long way
  - Enter contests to win equipment
  - Involve parents and community
    - Showcase students' use of technology
  - Volunteers - to donate computer repair services

- Grants
  - Funds provided by a funding source that transfers money, equipment, or services to the grantee
  - Grantee is the teacher, school, or organization

- Sources:
  - Department of Education
  - Federal Sources
  - Foundations
  - Corporations
Finding Funds to Support Classroom Technology Integration

Grants
- Request for proposal (RFP)
- Grant proposal
- Look for opportunities on the Web

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Chapter 7 Complete
Evaluating Educational Technology and Integration Strategies

Remember to Read and Outline the Chapter AND the Special Feature Article and Include Page Numbers