Technology Integration

Why Use Technology

Why use Technology

- Motivation

- Enhanced instructional methods

- Increased productivity

- Required 21st Century skills

Why Use Technology?
To Enhance Instruction

- Supplying interaction and immediate feedback to support skill practice (drill and practice)

- Helping students visualize underlying concepts in unfamiliar or abstract topics (simulations)

- Illustrating connections between skills and real-life applications (problem based learning)

Why Use Technology?
To Enhance Instruction

- Letting students study systems in unique ways (spreadsheets and simulations to answer "what if" questions)

- Giving access to unique information sources an populations (internet research, data and expertise not available locally)

- Supplying self-pace learning for capable students (software tutorials)

Why Use Technology?
To Enhance Instruction

- Allowing access to learning opportunities (vision and hearing impaired and/or manual dexterity)

- Provide opportunities and support for cooperative learning (group work)

Why use technology? To make student and teacher work more productive

- Save time on production task
- Grading and tracking student work
- Providing faster access to information sources
- Saving money on consumable materials

Why use Technology? To help students learn and sharpen their 21ˢᵗ Century Skills

- Technological literacy –essential for all jobs

- Information literacy – (task definition, information seeking strategies, location and access, use of information, synthesis an evaluation)

- Visual literacy – interpret, understand, an appreciate the meaning of visual messages, communicate using visuals

Types of technology facilities and how can we use them

- Special purpose labs (EDPM, Computer Lab)

- General-use computer labs (open to all school groups)
  - Library/media centre labs

Types of technology facilities and how can we use them

- Mobile workstations
- Mobile labs

Types of technology facilities and how can we use them

- Classroom workstations (2-5 computers available in the classroom)
- Stand alone computer (one computer available in the classroom for use by teacher or students)

Barriers to Technology Integration

- **Time**
  - Time to prepare
  - Explore creative ideas
  - Develop skills

- Collaboration
- Release time for workshops/ conferences
- Regular in-house staff development
- Compensation time

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Barriers to Technology Integration

- **Expertise**
  - Lack of Teacher expertise
  - Tradition of inadequate and/or inappropriate technology training opportunities

- Skill Development opportunities
- Coaching and best practices
- Training for strategies to teach with technology in the classroom

Barriers to Technology Integration

- **Access**
  - Lack of uninterrupted, on demand access to hardware, software, networks and other technologies both in and outside of school

- Allow students and teachers to "borrow" technologies
- Staff and equip technology centers just for teachers open after school an weekends
- Business/community partnerships access after school hours

Barriers to Technology Integration

- **Resources**
  - Lack of personal an professional technology training
  - Access to necessary expertise for use an implementation of technology
  - Infrastructure maintenance an repair
  - Budgets for continuing costs of technology

- Enlist support from parents/community
- Build business/community partnerships
- Lobby educational ministries for funding for technology
- Negotiate with vendors
- Write private grant proposals

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Barriers to Technology Integration

- **Support**
  - Lack of technical an administrative support
  - Lack of value attributed to the effort required for efficient an effective implementation of technologies in the classroom
  - Lack of suitable environment for experimentation with technologies

- Collaborate with stakeholders to develop a vision
- Document technology short an long term plans (strategic planning)
- Identify non-monetary means of positive incentivizing
- Include technology awards

English Teachers
Make your Case

- The emergence of Word processing has had the effect of making handwritten schoolwork less important. Some educators feel that handwriting should be given less emphasis in earlier levels in favour of teaching keyboarding and computer use.

Foreign Language Teachers
Make your case

- Virtual trips to foreign countries and virtual conversations with citizens of those countries are as good as actually going there.

Mathematics Teachers
Make your case

- Mathematics is an abstract subject. Our understanding of mathematical ideas and concepts is closely tied to how we represent the abstractions of mathematics. Technology has greatly enriched the way the abstractions of mathematics can be represented.

Science Teachers
Make your case

- Many educators place increasing emphasis on hands-on science skills, technology can play a special role in improving classroom practice in teaching scientific inquiry, or the process of approaching problems scientifically.

Physical Education Teachers Make your Case

- "Support is greatly needed if physical activity is going to be increased in a society as technologically advanced as ours." Is instructional technology part of the problem, part of the solution or neutral?

Social Sciences Teachers
Make your case

- Technology has opened the history classroom door to a dizzying array of data, artifacts, and perspectives. Can teachers leverage the technology to help their students understand and evaluate volume of data that they are presented with.

- Does the intersection between technology and art education help make the case for including technology in art education?

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