Use of ICT in the classroom

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Assistive technology

Describes devices and services that help remove barriers faced by students with special educational needs, in the areas of

- Communication
- Body support, protection and positioning
- Travel and mobility
- Education and transition
- Sports, fitness and recreation etc
ICT

The term stands for Information and Communications Technology. Examples:

- Office applications
- Computer Aided Design
- Data Bases
- Specialized software
- E-mail, forums, blogs, chat rooms
- Learning Management Systems etc
ICT in education 1/2

Why ICT in education?

- Opens the door to lifelong learning
- Enables simulation, role-playing and decision making exercises
- Facilitates Virtual Communities and Communities of Practice
- Gives access to huge amount of information
- Trains skills in new literacies, that are of paramount importance in today’s society
• Transformation of educational process

ICT by itself will not guarantee this. But the new technologies can have a very positive effect (if used correctly) in moving

➤ From frontal, teacher-centered model of education, to student-centered learning, differentiated for each student

➤ From a passive process, based on presentation of information, to active learning based on exploration

➤ From behavioral to constructivist and social models of learning

➤ From traditional forms of communication (usually verbal) to communication that involves symbols, multiple representations, hypertext etc

➤ From emphasis on memorization to learning how to learn
Apart from the general advantages, ICT enables students with hearing problems to

- Translate speech into text (or sign language) and vice versa
- Use communication aids along with specialized software for classroom activities
- Get easy access to information and communication (e-mail, web, blogs, wikis etc)
Apart from the general advantages, ICT enables students with hearing problems to

• Practice skills in a different context (e.g. by allowing repetitions)
• Work with activities that are clear, focused and attractive to them

In short, it facilitates communication and accessibility (with high speed and interaction) and provides equal opportunities to learning in inclusive schools.
Specific ICT elements, applicable to hearing impaired students

- Voice to text (also text to sign) technology
- PC and data projector
- Digital camera
- Various electronic teaching materials
- Various communication services (e-mail, web, blogs etc)
- Educational software / sw with educational uses (after careful evaluation)
- Interactive white boards / smartboards
Educational software

It is software designed and developed with the aim of teaching something to someone.

But even general purpose software can have educational uses (examples: spreadsheets, text editors, internet tools, powerpoint, google earth, data bases etc).

3 big categories:
1. Computer-aided guided teaching (drill and practice, tutorials, multimedia books etc)
2. Discovery and exploratory learning environments (virtual reality, concept mapping, simulation, model editors, microworlds, Logo-like, Lego-like, educational games etc)
3. Environments for expression, information searching, communication and collaboration (chat, forums, educational portals, Office, search engines, multimedia/ website editors etc)
Didactic scenario

Method and strategy regarding the educational activities, the role of each participant, the structure of their collaboration. It is essential in order to effectively use the educational software, and all ICT elements in general.

Some important elements: connection with school curriculum, technical and knowledge requirements, didactic targets, description of the steps, advantages of using ICT in the particular situation, student work form, bibliography etc.

Also essential for effective use of ICT: a properly designed school curriculum.
Interactive Whiteboards for deaf and hard of hearing students

Presented by
Krystallo Tziallila
Agenda

• My favorite interactive whiteboard: SMARTboard
• Examples of use
• Useful links
My favorite interactive whiteboard: SMARTboard

- Front Projection
- Model: 660i2
- 64" (162.6 cm)
Examples of Use

• Big books can be replaced with PowerPoint presentations on a smartboard
• Students’ presentations
• Videos in sign language
• Online math textbooks
Useful Links

• SMARTboard Interactive Whiteboards:
  – http://www2.smarttech.com/st/en-US/Products/SMART+Boards/

• Educational Enhancement for the field of Deaf Education:
  – www.deafed.net

• Interactive Whiteboards in the classroom
  – http://www/fsdb.k12.fl.us/rmc/tutorials/whiteboards.html
Electronic courses (e-learning) 1/2

Some strengths

• High teaching efficiency (organization, reusability of units)
• Availability of study material (“anywhere, anytime”)
• Individual approach to learners
• Interactive teaching mode, multimedia features
Some weaknesses

- Low motivation for self-study, insufficient learner involvement
- Lack of teachers with the special skills needed for e-learning courses
- Insufficient ICT literacy among general public
- Lack of personal communication
E-learning for hearing impaired – some considerations

• Minimize dependence on audio; combine sounds with moving images on the screen
• Follow relevant accessibility guidelines
• Take into account the specifics of reception of written texts by persons with hearing disability (regarding complicated syntax, metaphors, direct speech etc)

In any case, electronic text is considered by many philologists as a new kind of language form, separate from both oral and traditional written
TICTC course - the platform

Moodle

The educational material

- SCORM Learning Objects
  - Higher degree of re-usability
  - Platform independence
  - Accessibility for trainers and trainees
The method

Course Structure

- General view of the course, basic english version + participants’ languages
- Introduction about Moodle
- Course structure as agreed by partners
- SCORM learning units + activities + additional material
- Forum and Chat
The tools used 1/4

- **The eXe authoring tool**
  - Open Source eLearning XHTML Editor
  - No need for knowledge of html or XML
  - Exports content as SCORM Packages
The tools used 2/4

- The eXe iDevices used
  - Objectives,
  - Free Text,
  - Image with Text,
  - Image Gallery
  - Wikipedia article,
  - Flash movie with text,
  - External website
  - Activity,
  - Reflection,
  - Attachment
  - Multiple Choice Question,
  - SCORM quiz
The tools used 3/4

• Hot potatoes
  – free of charge for those working for publicly-funded non-profit-making educational institutions, who make their pages available on the web
  – The Hot Potatoes suite includes six applications: multiple-choice, short-answer, jumbled-sentence, crossword, matching/ordering and gap-fill exercises for the World Wide Web
The tools used 4/4

- Hot potatoes into Moodle
  - Flexibility
  - Adaptation
  - Scoring
  - Student tracking
Thank you