SignLab: Innovation & Technology in Sign Language Teaching

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Overview

- SignLab background
- Panda software demo
- SignLab effects on and implications for teaching
- Wrap up

Sign language teaching

- Language teaching: Language lab for practice and review, also reading and writing
- Sign languages like British Sign Language (BSL): Visual languages, no writing system
- Language lab? Heavy dependence on video
CDS: previous setup

- TV/VCRs, Video cameras (some VHS, some DV)
- Problems: Time, trouble & cost of copying VHS tapes, broken equipment

How to change?

- Had technical team already working on other projects, skilled in use of video technologies
- Decision to set up digital sign language lab
- Bristol University Learning & Teaching Award 2003/4 (£15,000)

Introducing: SignLab

- Computer lab used for teaching sign language and interpreting
- Students watch digital video on computers
- Students use webcams to record themselves signing
Overview of process

Student records with Panda onto eMac

Student’s home directory

Tutor’s home directory

Deep Box

Student copies file to their home, and copies to tutor’s drop box

SignLab setup

Server+clients

Cameras+headsets

Software: Panda

Development from software used in WIDSOM project (use of video on mobile phones)

Need features: simple record, audio dubbing, video dubbing

Panda

Easy to use

Automatic MPEG4 compression

Audio dubbing & video dubbing

Insertion of recorded clips into prerecorded clips

Insertion of tutor’s feedback (marking)

Consecutive interpreting

Digital drop box for turning in work
Panda Demo

Advantages of digital

- Ease of use
- Saves time & space
  - Computer system is reliable
  - Greater precision for analysis
  - Facilitates autonomous learning

Ease of use

- Manipulation of video with QuickTime Player (slow motion etc), easier than VHS
- Feedback (preview) in Panda allows for easy setup of recording
- Dubbing for voiceover is easy
- Re-recording is easy
-Submitting work to tutors is easier (use of drop box)
Efficient - saves time
• No time wasted rewinding
• Fast editing and ease of adding titles, etc
• Great for capturing one's work and review instantaneously
• Use of several QuickTime windows simultaneously
• Use of QuickTime and glossing (written translations into English)

Saves space
• Database of BSL clips in one place (instead of shelves of VHS tapes)
• Saves on cost and storage space of videotapes

Greater precision
• Instantaneous point of reference in a clip
• Can show on all workstations at exact point
• Inserting lecturer's feedback at exact point: More accurate and efficient means of assessment (less time in tutorials)
Reliability & stability

- Longer life of digital video compared to VHS
- Better in examination conditions – no mechanical breakdown or tape breakages to worry about

Autonomous learning

- Students can practice their BSL on their own
- Particularly helpful when working on receptive skills
- Also can record their homework (productive skills) by themselves, no need for second person to run camera

Disadvantages (1)

- Level of detail can be too precise, can result in misunderstanding of content
  - Use of QuickTime Player: students may use slow motion feature inappropriately - e.g. transition movements are understood as part of a sign
Disadvantages (2)

• Facilitates autonomous learning, BUT...
• Language teaching MUST have human component
• Use of machine cannot replace human interface in all sign language scenarios
  • “Performance” factor, esp with teaching sign language interpreting

BSL lecturers comments

• Transforms teaching ‘life’
• Less stress (if acquire basic IT skills)
• Greater incentive to develop a good database and cross-referencing
• Could not do without now!

Pete’s slides here

• Maybe just one??
• May need to delete/condense some others
Thank you

• Visit our website:
  • http://www.sign-lab.org