JISC

Innovative Practice with e-Learning

Case Studies

Any time, any place learning

Multimedia learning with mobile phones
City College Southampton

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Background

City College Southampton, located in the centre of the city, serves an ethnically diverse population. The college is one of the largest providers of English for speakers of other languages (ESOL) in the region and has pioneered the use of mobile learning with funding and support from the ICT Effective Practice Study led by the National Research and Development Centre for Adult Literacy and Numeracy (NRDC).

The challenge

The wide ethnic mix in ESOL classes in Southampton means an equally wide variation in educational experience and achievement. As a result, the use of ICT for learning and teaching is made more challenging by the limited previous experience of many learners.

Equally important is the motivation required to overcome difficulties inherent in learning a new language. To progress, learners need to be able integrate quickly into the wider community of the college and the city, so that they can learn linguistic skills more effectively and move on to take an active role in society.

Innovative solutions

Tutors at City College Southampton found that the use of camera phones in conjunction with web publishing provides an effective and novel way of extending learners' awareness of their locality at the same time as providing opportunities to develop their linguistic skills in real and meaningful ways. Combined with the mediaBoard concept, developed by Cambridge Training and Development Ltd (CTAD), the use of camera and audio recording facilities in mobile phones has enabled ESOL learners to research, record and publish their own project work based on their own locality.

mediaBoard is a web based multimedia message board which can receive SMS or MMS messages from mobile phones. Tutors upload an image, such as a map of the college campus, onto the board in advance of the activity and create zones within it. Learners working in pairs send information from each zone in the form of pictures, text messages or audio files via a dedicated email address. mediaBoard allocates the messages to the appropriate zone on the image. In this way, a composite picture can be built up of the college campus at the start of the course for newly enrolled learners.

Tutors have also developed wider investigations for more advanced groups, for example researching into past migrations of populations in and out of Southampton, and into jobs in the local area. All the while, learners are practising grammar, idiom and pronunciation while building up their knowledge of the local area. This seamless way of extending learners' understanding of English grammar has had the additional benefit of improving self-esteem and of bringing isolated groups of learners into contact with the wider community.

Learners also gained from multi-sensory learning opportunities and from being able to take up a range of roles within activities. For example, a learner with limited mobility could participate in the project by asking questions of those out on location using the ability of the mediaBoard to support two-way communication. Results from the activity could then be shared with others outside of the course; anyone with internet access can view the finished web page if provided with the URL, including mediaBoard enthusiasts in other countries. Crucially, learners can also take charge of the content of their classes by making the resources themselves.

"Questions we set to be answered on locations, for example in local museums, introduced [learners] subtly to more complex grammatical constructs. Even when the technology went wrong, it still generated opportunities to practise new vocabulary!"

Jo Dixon-Trifonov, ESOL tutor, City College Southampton.

The technology

O2 XDA 2s (camera phones with PDA functionality) were used in the project with joint funding from Southampton College and the NRDC. However, any camera phone could be used for this purpose. Desktop computers were used to view the results back in college.

The tariff for use of MMS messaging on mobile camera phones will vary and costs should be researched with the institution's preferred phone and network provider.

mediaBoard is a product under development as part of the m-learning project. It was used by negotiation with CTAD for the purposes of this project but will become available for wider use during 2005.

Making it happen

Creating a mediaBoard is not difficult, but as with all new technologies, users need to be prepared for some occasional breakdowns in service. MMS messages are occasionally delayed and operators may reconfigure their picture messaging format, preventing the server from picking up messages. Any camera phone or network can be used but it is advisable to check the strength of signal in the area from which messages will be sent. Involving technical support teams from the outset of the project is recommended.

Visit mediaBoard (www.mboard.org.uk) to find out how to register. Log on, upload the background image or template, and decide who has entry and editing rights, then plan your activity. You can also select options such as password protection and editing of text on the message board when setting up a mediaBoard.

Key points for successful innovation

- Guidelines on acceptable use and on personal safety while working with mobile phones will be necessary. However, experiences in City College Southampton so far have shown little evidence of misuse or theft by learners.
- Use of mobile phones by visually impaired learners is possible if they are paired with sighted learners, or provided with enlarged illustrations of keyboards, but care should be taken that no learner is excluded from the activity.
- For practitioners or learners with very limited experience of texting or use of web pages, some initial training will be needed. In addition, it is advisable to set up support networks to identify and develop sound pedagogies around the use of innovative technologies.

Final word

Staff at City College Southampton are now exploring wider uses of mediaBoards, for example in vocational training. Other applications across the curriculum include icebreaking activities to encourage group integration, collation and sharing of data from field trips, virtual tours linking students working in the same discipline in other countries, and research assignments.

A more innovative use on the horizon is a personal diary or record of achievement built up against a 'mind-map' at the commencement of a course or module. mediaBoard also has potential uses in formative and summative assessment, particularly as an element in an NVQ portfolio.

For further research

Details of mediaBoard and learning materials produced by Cambridge Training and Development Ltd (CTAD) – **www.mboard.org.uk and www.ctad.co.uk**

The m-learning project – **www.m-learning.org**

The ICT in Adult Literacy and Numeracy Effective Practice Study at the National Research and Development Centre for adult literacy and numeracy (NRDC) – **www.ioe.ac.uk/hgm/research/SkillsforLife/index.htm**

"Mobile learning helps learners to improve their literacy and numeracy skills and to recognise their existing abilities."

Jill Attewell, Mobile Technologies and Learning, LSDA (2005)

Focus on the technology – Mobile phone

Learning and teaching potential

Can widen participation by hard-to-reach groups.

Can enable interactive and collaborative learning.

Risks

Loss of or misuse of items.

Support implications

Equipment booking and battery charging system.

Pedagogical and IT support for practitioners.

Accessibility

Benefits: Mobile phones are beneficial to many disabled learners, for example mobility-impaired learners can take part in group activities in locations that are inaccessible to them by using mobile phones to communicate with their peers.

Constraints: Learners with visual impairment will not be able to engage easily with a small screen and learners with low dexterity will find it difficult to operate mobile phones.

Motor	Mobility	Hearing	Vision	Cognitive
✘	✓	✓	Possible Challenge	✓

Costs

Low per item; bulk purchase of messages will need to be arranged with a preferred phone and network provider.

Added value

High in engaging hard-to-reach learners and in off-campus learning.

Additional uses

- Dissemination of learning objects such as quizzes.
- Institutional and personal development information delivered direct to learners.
- Fieldwork evidence gathering.

Key to the accessibility section: Ticks and crosses indicate where use of the device as described in this case study will support or disadvantage a learner with a disability. 'Possible challenge' is used where it is advisable for practitioners to check the degree of accessibility for individual learners. Definitions of the categories of disability are given below.

Motor	Difficulties in moving, controlling or coordinating movement of the body.
Mobility	Restriction in movement from place to place.
Hearing	Hearing impairment or deafness.
Vision	Visual impairment or blindness.
Cognitive	Difficulties in processing information as a result of a range of conditions, including dyslexia.