

## project motivation and aim

The target audience for m-learning is those young adults, aged 16 to 24, who have not succeeded in the education system, cannot read and write adequately and have problems with simple calculations. They are not currently involved in any education or training and may be unemployed, under employed, or even homeless.

What do many of these young people have in common? – A mobile phone! The m-learning project is investigating how mobile phones, and other mobile devices, might be used to engage these young people in learning activities, start changing their attitudes to learning and thereby contribute to improving their skills, opportunities and lives.

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# mobile communications technologies for young adult learning and skills development

## addressing the small screen challenge

The tiny screens on mobile devices present a significant challenge. Practical ways in which we seek to minimise the problem include:

- use of the familiar and popular SMS messaging;
- use of verbal/audio communications – including verbal command recognition, activating pre-recorded responses from an m-learning server and delivery of recorded material;
- voice-to-text and text-to-voice technologies – which have potential for literacy support as well as enabling people with eyesight or hearing difficulties to participate in m-learning activities;
- use of mobile phones in the normal way, but as part of a collaborative learning activity or game.

Use of standards aids integration of project elements and ensures future interoperability with other e-learning systems

## shocking statistics

Many countries, including the UK, have rates of functional illiteracy of 20% or more and the innumeracy rates are worse – *International Adult Literacy Study 1997*.

‘One in five adults has less literacy than is expected of an 11-year-old.’ – *A Fresh Start, Improving Literacy and Numeracy 1999*.

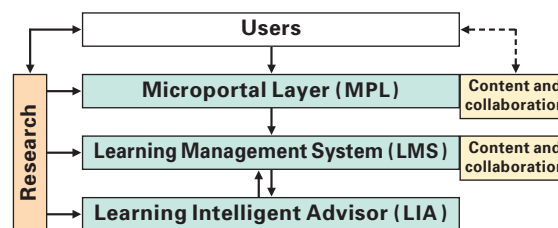
‘Of the 580,000 or so 16-year-olds who leave school each year, around 150,000 are below Level 1 in both Maths and English. 22% of these young people do not go on to training or work after they leave school’ – *Skills for Life, DfES 2001*

Development of m-learning materials and infrastructure is an iterative process involving groups of young people

‘It’s essential now, not a luxury’

## infrastructure overview

3 inter-related elements – MPL, LMS and LIA – provide access to m-learning materials and services, also some services are accessed directly from mobile devices.



The LMS has the functions of a Managed Learning Environment (MLE) and includes a Learning Content Management System. In some cases learners use the LIA, an intelligent tutor service accessed via the LMS, which compares learner information with details of learning modules available, to assist learning planning.



**RESEARCHING YOUNG ADULTS' USE OF MOBILE PHONES**  
*Findings Emerging from the Pilot Study*

How phones are currently used – interesting statistics

- 46% play games
- 33% had a WAP-enabled phone, but only 4% used it to access internet-based information
- 40% wished for music, with another 12% wanting radio
- 70% were not worried about their health and safety
- 63% considered a mobile phone had changed their life

Young adults' views about using their phones for basic skills learning in English and Maths

- 46% expressed an interest in a mobile phone game for literacy learning
- 50% expressed an interest in a mobile phone game for learning maths
- Most interest shown by:
  - Younger ages
  - Females
  - Those with lower qualification levels

## the learning materials

During phase 1, demonstrator learning materials are being developed within five learning themes – football refereeing, sex and sexual health advice, urban survival, making and reviewing videos and a virtual band – designed to be attractive to our target audience. In each theme a collection of learning objects, delivered via multiple technologies, addresses a single learning mission and assists learners with literacy and numeracy difficulties.

Development of m-learning materials and interfaces is informed by research including evaluating and monitoring emerging technologies

users and usage research  
 technology watch  
 health watch  
 evaluation

