



Use of mobile phones for language testing.

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Pilot project

- Investigate the use of ICT in post-primary schools in Ireland for teaching and learning Irish
- April May 2007
- Technology used as a tool not "accessorising education"



Pilot group

- Ratoath College, Co. Meath
- 69 students
- 13-14 years of age
- 3 classes teachers Nuala, Áine and Amanda
- Three Parts:
 - SMS "Word-a-Day"
 - Text-based Instant Messenger Chat
 - Mobile phone based Oral e-Assessments

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Oral Gaeilge (Irish Language) Assessment in Ireland

- The Junior Certificate (15 year old students) Irish Exam is comprised of a written exam, an aural exam and an optional school-based oral exam.
- At present, only twelve schools partake in the optional oral exam.
- March 2007: change in the weighting of the Irish Exam sections for 2010.
 - 50% for written exam
 - 10% for the aural exam
 - $\,$ 40% for the optional oral exam
- This increased emphasis on the use and production of Irish is the foundation of one of the project aims – promotion of student oracy in Irish.



Government Objectives for Irish Language

 "One of the key Government objectives for Irish is to increase the use and knowledge of Irish as a community language" (Mary Hanafin, Minister for Education and Science, 11 March 2007)

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Project Aims

- promote oracy through audio-lingual and more communicative methods
- increase student motivation through the use of familiar technology each student uses daily
- increase student use of the four skills, reading, writing, speaking and listening, in Irish
- help students progress their Irish competency
- promote the use of Irish for communicating
- investigate the use of ICT to assist teachers in assessing students and students in selfassessment.



SMS "Word-a-Day"

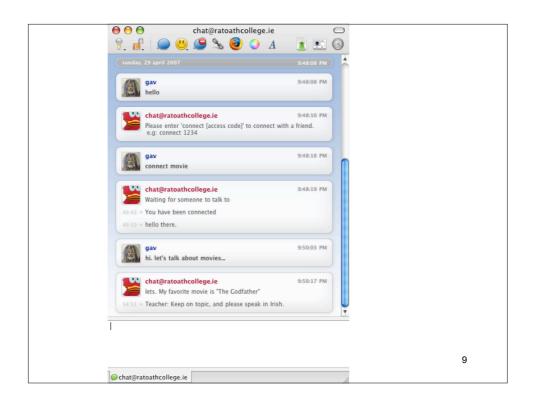
- Words, phrases & questions entered in a web interface
- Students receive one or two SMSs daily
- Different classes setup with different levels and topics
- Activities are designed around the SMSs
 - Use the word in todays oral e-Assessment or Chat
 - Look up definition of word or phrase and make note
 - Use in paper-based assessments
- Primary function = to build Irish language vocabulary

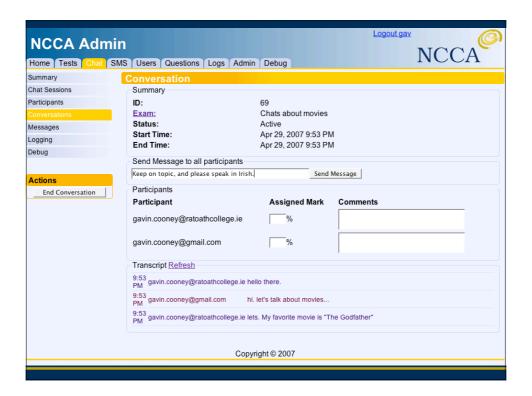
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Text-based Instant Messenger Chat

- Web-based text chat application
 - Works on lowest possible specification of computer
 - Based on Jabber open standards
- Student converses with chat robot on server
 - Matched anonymously to another student
 - Conversation logged to web-based administratioin
 - Teachers monitor conversations in real-time and can join any conversation at any time
- Multilingual interface/ commands
- Chat to prompts and topics music, video, image
- Chat comhrá (conversation), scéal (story), litir (letter)





Tortaí - don scrudíe cainte



Dalta: gavin.cooney@ratoathcollege.ie

Eolais

Ainteantais: 69

Scrudú: Chats about movies **Tús ama:** Apr 29, 2007 9:53 PM Críoch ama: Apr 29, 2007 9:58 PM

Grád

Marc: 60

Tuarisc: Just ok. Conversation was a bit short. Try harder.

An Comhrá

2007-04-29 21:53:30.0 Mise: hello there.

2007-04-29 21:53:43.0 Card: hi. let's talk about movies...
2007-04-29 21:53:57.0 Mise: lets. My favorite movie is "The Godfather"
2007-04-29 21:58:31.0 Mise: Teacher: Keep on topic, and please speak in Irish. 2007-04-29 21:58:31.0 Card: Teacher: Keep on topic, and please speak in Irish.



Mobile-phone based Oral e-Assessments

- ~ 70 Students given mobile phones
- Phone functions are limited:
 - Dial only one number
 - No outgoing SMS
 - No incoming calls or Voicemail
- Students dial a phone number and are given a series of question prompts



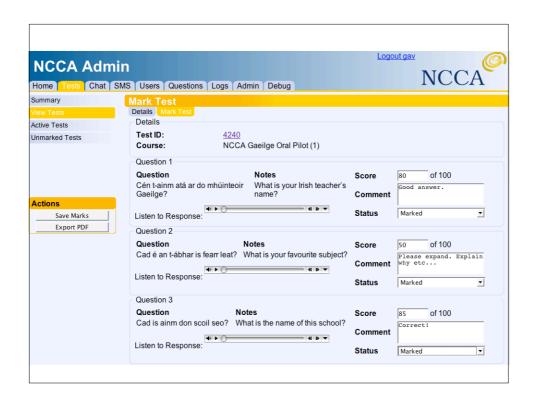
- Students call the supplied telephone number and log-in to the system using individual student numbers and PINs.
- Once students have passed through the log-in process, they are presented with a series of ten questions.
- These ten question prompts are randomly chosen from a larger item-bank of questions for this level.
- The student records an oral response, much like a voicemail system, and has an opportunity to re-record their answer if they are unhappy with their response.
- Answers are saved to a server as a WAV file.

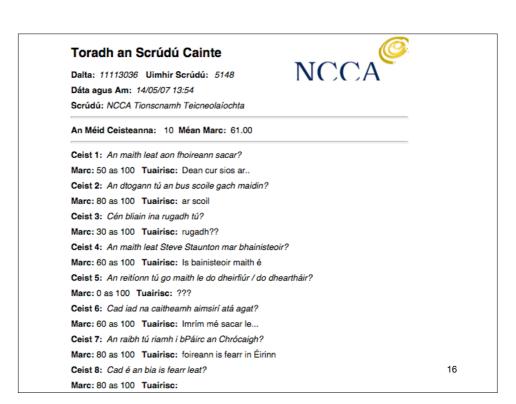
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Marking

- Teachers/ Markers play student responses in a webbased administration system
- Where a student response is deemed incorrect or lacking, the the answer is marked as such, and the question is returned to the pool of questions the student must complete to pass this level.
- Use of podcasting to set individual student response will be placed alongside an exemplary answer for that question.
 - Students can later compare their response to the exemplary answer and re-record their answers.







Adaptive Formative e-Assessment

- Teachers decide when students move on to the next level of questions and which questions need to be re-answered within any given level.
- Students work their way through a series of levels. When marking the answers, teachers will provide detailed feedback to justify the mark given.
- At the end of a level, the teacher moves the student to a new level based on their abilities.
- A feedback booklet can then be sent to the student by email or printed out by teachers as required.
 - This feedback serves as a portfolio of competence for students.

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Podcasting

- Students can subscribe to a podcast of their own responses using their own computer and iPod
 - Text feedback included with podcast
- Teachers/markers can also highlight a particular answer as an "exemplary" answer, and students could subscribe to a podcast of the exemplary answers on their iTunes/iPod.
- Alternatively, the teacher could subscribe to a podcast of the answers, print out a marking sheet and mark them wherever they want e.g. on the bus.



Comments from teachers

- "It's nice to hear students you wouldn't usually hear too much in class talking on the recordings." (Áine, class teacher)
- "It's more interesting and interactive than sitting with a red pen."

(Áine, class teacher)

 "He's gaining in confidence. He's not very clear in English but his recordings are getting better."
 (Nuala, class teacher)

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Observations

- Teachers require solid training and support to use the technology
- Students are at home with the mobile technology
- Irish prompts for phone system
 - Barrier
 - Teachers overcome difficulty
- Unreliable wireless internet access in the school
- 67% of students & teachers stated students had made progress in speaking Irish as a result of participating
- 95% of students "enjoyed" using the technology
- Full report available on www.learnosity.com



Biometric Voice Verification

- Biometric voice prints uses spoken words to calculate a unique digital representation of an individual's voice.
- Future versions of this project will allow students to login using their voice, and have each of their Irish language responses verified against a previously recorded voice-print.
- Biometric voice verification will allow use of mobile technology for on-demand, high-stakes oral exams.
- If biometric voice verification is used, it is possible to all students complete their oral examinations from home, unsupervised.