

# ***Virtual Classrooms in Educational Provision – DEIS Pilot Report***

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Development, Cork Institute of Technology, April 2005*

## **Abstract**

This report outlines the result of the pilot the DEIS Department for Education Development in the Cork Institute of Technology conducted as part the Socrates Minerva project “Virtual Classrooms in Educational Provision” (see <http://learning.ericsson.net/virtual>). It begins by presenting the main features of HorizonWimba, the virtual classroom system used for the pilot, and discusses reasons for choosing this particular brand before going on to explain how a course was put together using for the system and how this was delivered to the pilot group. The rest of the report is concerned with feedback gathered by survey at the end of the pilot, and with general conclusions and recommendations that can be gartered from these results and from the experience overall.

## **The Virtual Classrooms in Educational Provision Project**

The project is sponsored under the Socrates/Minerva action plan for ICT in Education. The main stated purpose of our project is to analyse, evaluate and document the use of synchronous elearning systems (virtual classroom systems) in academic and corporate institutions in Europe. The project is co-ordinated by the Ericsson Competence Solutions in Dun Laoghaire, Ireland and runs until October 2005. This report is part of *Work Package 4: The Production of Portfolio of Ten Demonstration Courses* which has to do with the production, delivery and evaluation of a number of real virtual classroom sessions.

## **The HorizonWimba System**

As part of project the DEIS department decided to purchase a single room licence for the HorizonWimba Live Classroom System, a fully featured live virtual classroom system that offers an impressive list of features such as:

- Multi-way audio (VoIP) and Streaming video
- Public & private text chat

- Flexible content area with the ability to show content not just as PowerPoint but MSWord, Excel, HTML, webpages, images, movie clips, PDF, Flash, CMS pages, etc Electronic whiteboard and polls, quizzes, and surveys
- Application sharing
- Archivable presentations
- Accessibility for people with disabilities (this includes features such as closed-captioning of archived sessions for the hearing impaired and hot keys, and compatibility with most screen readers for the visually impaired)

This decision was made based on a number of factors including:

- Prior contact with the Wimba organisation which recently merged with Horizon to form HorizonWimba
- The fact that Wimba, one half of the HorizonWimba company, are European-based (this is by contrast to many of the other VCT vendors who are American-based)
- The perceived need in the project to use a VCT other than that of Centra, already used by three other members of the project team
- The close links between the HorizonWimba VCT and WebCT, the LMS used by the Cork Institute of Technology, and the possibility to integrate the two should the piloting of the HorizonWimba system prove successful and should the DEIS dept wish to mainstream HorizonWimba use in the institute
- The impressive client list of the HorizonWimba and the emphasis there on higher education partners (e.g. California Community Colleges, University of Georgia, Boston College as well as EDUCAUSE a well-known American-based association whose for the advancement of higher education through information technology.)
- A reasonably priced year long trial which suited the needs of the project perfectly

At the second meeting of the Virtual Classrooms in Educational Provision project in Hagen, Germany it was agreed that two pilots would be delivered by the DEIS department, the first of which would introduce the other project partners to the system.

### **Pilot Preparation**

As per most VCT sessions the typical The HorizonWimba session works with presenters preparing a series of PowerPoint slides which are then uploaded to the system (in HorizonWimba each slide is then converted into a gif image for web-optimisation purposes)

and used in conjunction with other main collaboration features, in particular multi-way audio and public/private chat, to co-ordinate synchronous e-learning sessions. The preparation of these slides then became the first step in the preparation for the DEIS pilot, with various other activities based on other features of the system, e.g. survey tools, application sharing etc, being added later on top, as it were, of this basic structure.

The lesson was specifically designed with the cohort described below in mind, i.e. a small group comfortable not only with web-based technologies but with a range of e-learning tools; a larger group would certainly have limited opportunities to build extra activities into the process due to time constraints and basic logistics and a less expert group would have meant there was a need perhaps for greater contextualisation of the technology itself and more guidance with regard to the more basic features of the system. While issues such as the size of the learner group and the prior knowledge/competence possessed by its members are obviously of critical importance also in the face-to-face environment but there is, arguably, less flexibility afforded for adapting materials “on the fly” for the online synchronous group and more of an onus upon trainers to adapt materials prior to delivery according to the characteristics of each group in terms of group size and subject/VCT expertise but other less obvious characteristics also perhaps such as language competence, internet connection speed/quality, dominant cultural or communal traits which might also include preference for certain learning styles or attitudes to the learning process.

After preparation the lesson was tested with a colleague in advance of the pilot and some changes made, one of which was a simplification of the slides design to suit the gif format. The ability to archive this and other short tests also provided valuable feedback to the instructor in advance of going live with the lesson.

Prior to going live with the lesson all participants were asked, at a minimum, to run the *Setup Wizard* (<http://208.185.32.63/wizard/launcher.cgi>) which ensures the readiness of a participant’s machine to access and fully take part in a HorizonWimba session (this primarily ensures the user’s browser is Java-enabled browser, is also running JavaScript and has the Quicktime plug-in installed and properly configured). Participants were also provided with the URL for a Flash-based tutorial ([http://www.horizonwimba.com/tools/4\\_0\\_interface.html](http://www.horizonwimba.com/tools/4_0_interface.html)) for participants new to the system but few of the pilot group availed of this.

## A Walkthrough the Pilot

As explained above the preparation of slides were the first step in preparing the pilot class, these same slides are used below to provide a walkthrough the course material and activities below.



### SOCRATES/MINERVA VIRTUAL CLASSROOMS PROJECT CIT Pilot: *Overview of HorizonWimba*

10:00 GMT - 14 December, 2004



**Presenter:** Gearóid Ó Súilleabháin  
Researcher  
DEIS Department  
Cork Institute of Technology  
E-Mail: [gosuilleabhain@cit.ie](mailto:gosuilleabhain@cit.ie)

The pilot began with a short preamble by the class facilitator Gearóid Ó Súilleabháin

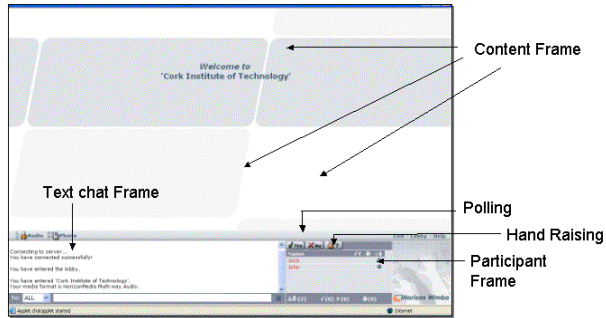
### **Important:** Can Everyone Hear Me?

- I want to make sure that everyone can hear me – if you can please click on the yes button

Pilotees were asked to indicate that they could hear the presenter, all (thankfully!) could

DEIS Department - Virtual Classroom Project Pilot - 14 December, 2004

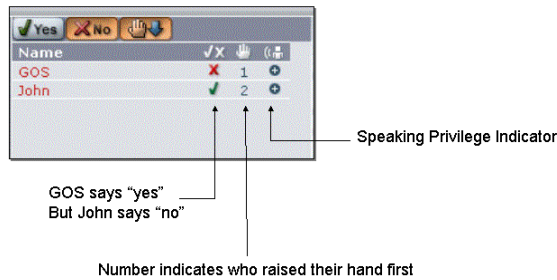
## The HorizonWimba Interface



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The main areas of the HorizonWimba interface were explained to the partners

## Participant Frame

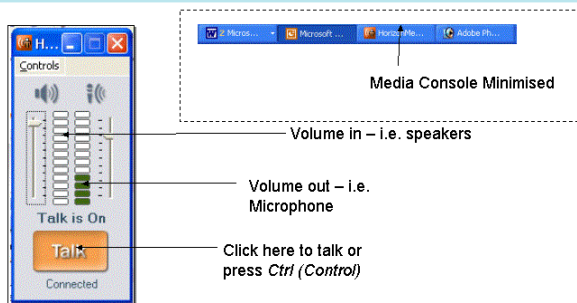


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The important Participant frame which contains yes and no buttons, the "virtual hand" tool and a list of participants and their status was explained.

Each of these tools was trialed in turn by the users.

## Media Console



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The Media Console and its purpose as a means to control volume in and out was explained. Optimal levels for Volume in were then explained after which each participant in the pilot were in turn given microphones privileges and the opportunity to speak to the rest of the group for the first time.



## Questions Please...



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The lesson concluded with a rich and useful discussion about various features of the system in particular the application sharing feature which seemed to be of great interest to the group especially as some had had unsuccessful experiences using the feature with other VCT systems; the archiving feature also arose as one of particular interest to the group.

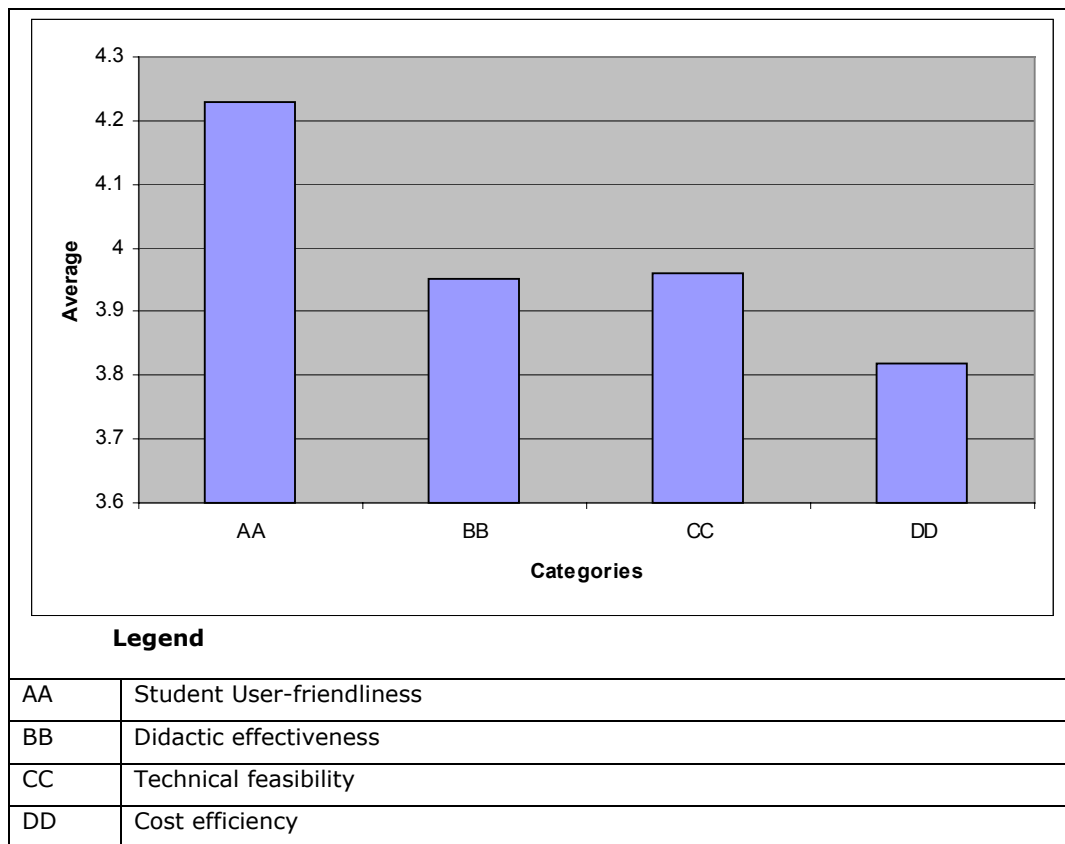
The last 10-15 minutes of the lesson were taken up by the partners experimenting with the application sharing feature.

## Feedback

The pilot was held on the 20<sup>th</sup> of December and was attended by seven participants from the partner organisations (access to an archive of the session can be provided on request from the DEIS Department), it lasted just over 55 minutes. Subsequent to the pilot a questionnaire developed by the co-ordinators was distributed and filled out by all participants, the results of which are described below:

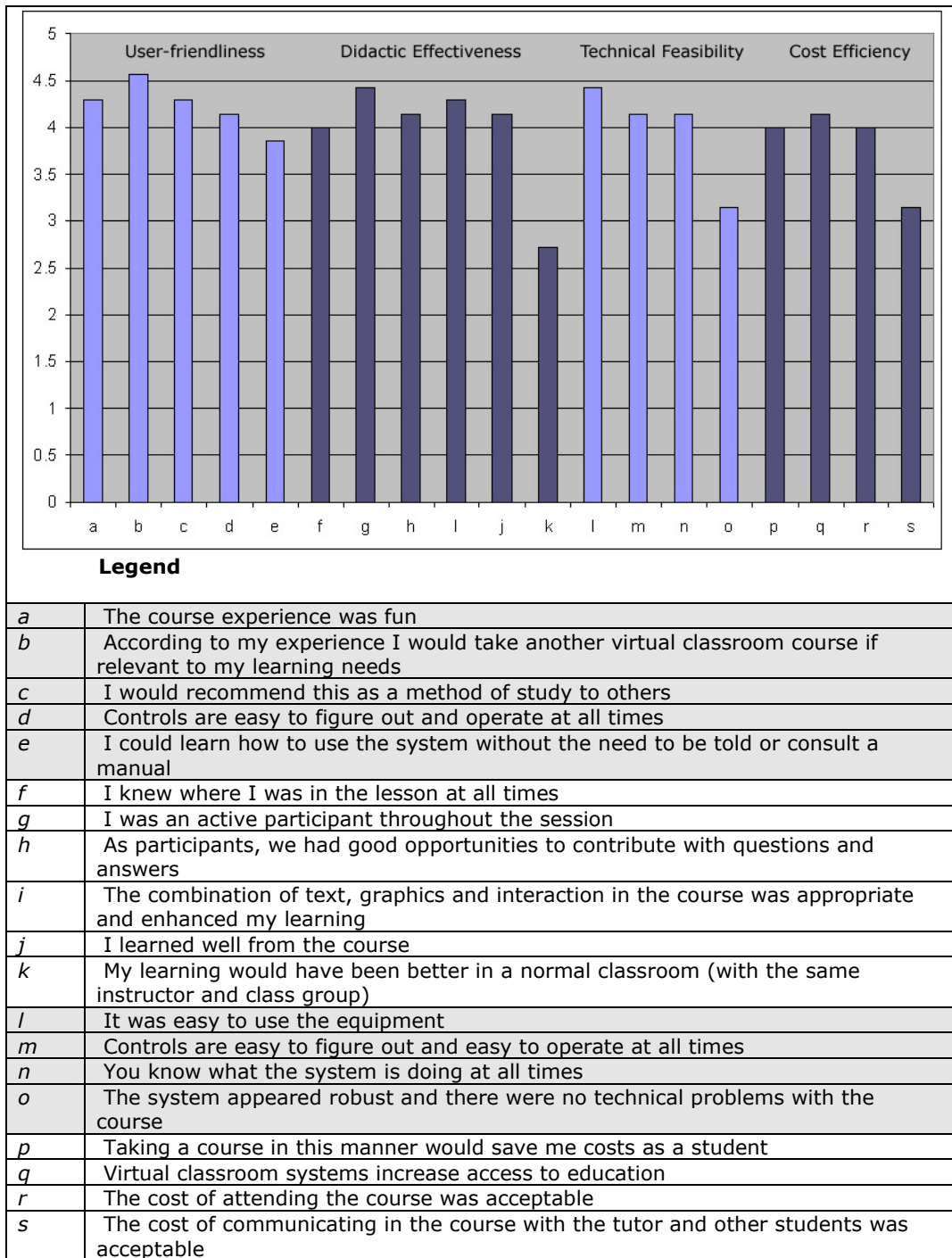
Of the seven participants 4 were male and 3 were female, 2 were in the 25-29 age bracket, 1 in 30-40 bracket, 1 in the 41-50 bracket and finally 3 were over 50. 3 of the participants described themselves as employees, 2 as managerial and 2 as teachers or trainers. The strong majority of the group had 4 plus years of post secondary education, one had high school matriculation and 1 had 1-3 years of post-secondary education.

In the remainder of the questionnaire participants were asked to score a series of statements under four different headings along a Likert scale running from “strongly disagree” to “Strongly agree” – average results for each heading are represented in the bar chart below:



As may readily be seen *Student User-friendliness* was scored very highly with an overall average of 4.23 – a caveat should be offered here however: all the participants had previous experience with virtual classroom software and all work in and around the e-learning area, a fact bound to impact on their responses here and elsewhere. This notwithstanding it is interesting to see that the best response in this category was to the statement “According to my experience I would take another virtual classroom course if relevant to my learning needs”, arguably a great indication of the positive reaction of the group to the experience and testimony to the effectiveness of the approach at least with a group of this size and expertise.

The lowest scored category was that of *Cost Efficiency*, however with an average result of 3.82 this was still well above the median. Looking more closely at the results within this category it may be seen (see chart below) that it was the issue of “cost of communicating in the course with the tutor and other students” with an average score of 3.14 which was responsible for this slightly lower overall score; it’s difficult to know how to interpret this statement however, it may be that it refers to software or to internet costs or even to hardware costs such as the cost of a headset (or microphone and speakers as appropriate), it might even refer to the time actual communication takes versus time for the same activity in the face-to-face context.



## Concluding Comments

Generally this first trial of the HorizonWimba was a success from a number of different perspectives:

- The system worked technically as it was supposed to, there were no serious technical difficulties, everyone who signed up for the pilot was able to login and participate fully in the session.
- The lesson was delivered as planned within the time allowed, all planned interactions with the group worked well and there was even time and opportunity for individual members of the group to explore particular aspects of the material of interest to them.
- The results of the distributed questionnaire were extremely positive with an overall average result on the Likert scale of 3.999.

As already noted the success of the pilot could be put down in part at least to the nature of the pilot group itself, all of whom were familiar not just with web-based technologies but with a range of e-learning tools including other VCT systems, primarily that of Centra. Such prior expertise no doubt contributed in part to the overall positivity of the results of the survey as too did the size of the group, at just seven individuals it was possible to include interactive activities with the group which might not have been possible with larger groups – already, in fact, with even this small size of a group it was apparent that each individual in the process added quite perceptibly to the overall delivery time, with much larger groups of say more than twenty students it is likely that pure logistics would militate against any degree of interactivity. It may also be conjectured that the actual subject of the VCT session worked in its favour: after all any other VCT session for first-time users would have to first begin by introducing participants to the main features of the system, teaching these as efficiently as possible and then using this information/know-how to facilitate the other learning.

A more rigorous test of the system then would be based around a different subject area, making use of a large, to much larger, group with at least some first-time users of VCT systems included. Such testing would be necessary to substantiate the virtual classroom tool as an effective and viable e-learning support while also identifying perhaps key issues for would-be users of the system (e.g. what level of ICT-know-how should participants possess, do these kinds of systems work better for certain subject areas, learning styles, teaching approaches etc), other data gathering techniques such as interviews and open questions might also provide some unanticipated feedback with regard to particular issues. This kind of research would seem to be thin on the ground but worth the effort in context of the pedagogical promise of this relative new - at least on this side of the Atlantic - e-learning tool and its affordances for both blended and pure distance education courses, it is likely in connection with the latter and the manner in which it can address the so-called “loneliness of the long distance learner” that the tool will really come into its own, offering what distance

education theorist Desmond Keegan once called “face-to-face” teaching at a distance, or used in association with LMS technology to create a new kind of blended learning.