E.C.L.O.
European Consortium for the Learning Organisation

The E-Learner

The Editor for this Issue is Desmond Keegan (Ericsson Ireland)

THE IMPACT OF TECHNOLOGY ON DISTANCE LEARNING STUDENTS

Methodology

The extant literature of the impact of new technology on learning was considered fragile and inconclusive. It was important, therefore, to use in the project the best methodology available.

This was considered to be the methodology proposed by the Institute of Education Sciences of the US government Department of Education in Identifying and implementing educational practices supported by rigorous evidence (December 2003).

These guidelines are based on randomised controlled trials that are well designed and implemented plus the quantity of the evidence needed. Randomised controlled trials are studies that randomly assign individuals to an intervention group or to a control group, in order to measure the effects of the intervention.

The process of randomly assigning a number of individuals to either an intervention group or a control group ensures, to a high degree of confidence that here are no systemic differences between the groups in any characteristics except one – namely, the intervention group participates in the intervention and the control group does not. Therefore the resulting differences of outcomes between the intervention and the control group can confidently be attributed to the intervention and not to other factors.

In order to obtain a finding of statistically significant effects, a study usually needs to have a relatively large sample size. A rough rule of thumb is that a sample size of at least 300 students (150 in the intervention group and 150 in the control group) is needed to obtain a finding of statistical significance.

Procedure

In the present project for each of the seven interventions of the impact of technology on learning each of the six partners

- Ericsson Education, Ireland
- Distance Education International, Ireland
- FernUniversität in Hagen, Germany
- University of Plovdiv, Bulgaria
- Corvinno Technology Transfer Centre, Budapest, Hungary
- University of Rome III, Italy

supplied 25 students for each of the control group and intervention groups for each of the seven interventions.

The seven issues addressed by the project were:

- Impact of technology on learning in Open Universities, distance education systems both academic and corporate
- Impact of technology in 'traditional' e-learning
- Impact of technology on learning in synchronous elearning
- Impact of technology on learning in the use of the WWW on-campus
- Impact of technology on learning in mobile learning
- Impact of technology on learning for men and women
- Impact of technology on learning for younger and older learners.

The project went beyond the stipulations of the Identifying and implementing educational practices supported by rigorous evidence guidelines by collecting data from Ireland, Germany, Bulgaria, Hungary and Italy and not just from one country.

To follow the research and for further information, please go to www.ericsson.com/impact