
This article investigates both primary and secondary needs for knowledge and skills in relation to the effective use of ICT in Scotland. The survey was designed to provide basic information on the ways in which ICT is currently being used, how competent teachers feel themselves to be, their views on their own needs and priorities for further development, the kind of training which will them develop further, and the factors which tend to encourage or hinder the take up of ICT in the classroom, in teachers’ own professional development and in the management and administration of teaching. Half of primary teachers and 69% of secondary teachers involved in the study report that ICT has a positive impact on their teaching although there was some variation of opinion between subjects at secondary level. Proportionately fewer of those who teach mathematics, science, and languages were in the high scoring user group compared with other subjects. Mathematics teachers had the lowest use scores while teachers in business and management subjects tended to have the highest use scores. On the subject of the impact of ICT on pupils’ learning, the majority of teachers (62% primary and secondary) think that ICT has a positive effect. Primary teachers have a perception of ICT as an “add-on” or reward rather than integral to their core teaching. Secondary teachers report a wider range of positive benefits and are beginning to show signs of a more critical, reflective and more integrative approach. The study shows that those teachers who have had greater opportunity to use ICT in the classroom are beginning to focus more on the application of ICT within the learning process and less on the technical aspects of ‘teaching ICT’. The authors claim that to be skilled and knowledgeable is the key to effective implementation of ICT in teaching and learning. They further add that training alone is unlikely to be effective in the development of ICT skills and knowledge, and enhanced use of ICT in schools. A more holistic approach is required comprising appropriate training, ready access to ICT resources, and ongoing support and advice to encourage progression beyond any formal training.

**Keywords:** Teaching-learning strategies; Secondary education; Primary education; Scotland.