

SCIENCE DEPARTMENT

Measuring the Impact of ICT on Children's Education

Project - Using various software packages, within S1/2 science, to illustrate teaching points. Within this study an attempt will be made to measure the impact of using a piece of software to display data graphically, rather than pupils preparing the graphs manually.

Teacher Review

Level 1 - unsatisfactory; major weaknesses, Level 2 - fair; some important weaknesses,
Level 3 - good; strengths outweigh weaknesses, Level 4 - very good; major strengths.

OUTCOME 1 Learner Reflection

This relates to learners' ability to think about what they are doing, and their ability to put it into a number of contexts.

Taking personal responsibility for learning	LEVEL	HOW DO WE KNOW?
Can learners use self-assessment when working with ICT to decide on subsequent activities and remedy shortfalls in their understanding? <i>eg They check their work, identify mistakes and engage in unsupported remediation.</i>		
Realistic but improving culture Do learners show a growing awareness of the balance between improvement and the time devoted to a task when using ICT?		
Ability to articulate evaluations of actions taken Can learners describe the value and drawbacks of alternative approaches, and justify their decisions?		
Developing informed attitudes in relation to ICT in society Can learners articulate ways in which school activity relates to activities in the wider world?		

OUTCOME 2 Skills development

This relates to learners' development of systematic skills in the using ICT tools for a purpose

Effective and responsible use of ICT	LEVEL	HOW DO WE KNOW?
Are learners using ICT always focused on the task in hand?		

OUTCOME 4 Shared planning/Organisation

This relates to learners' ability to work in a variety of modes (individually, in small or large groups, class) making best use of the teacher and the learning resources in the class, school and beyond, and showing a problem solving approach and the ability to break down a project into constituent elements

Working in groups	LEVEL	HOW DO WE KNOW?
Are learners able to work with other learners in various groupings with limited teacher direction?		
Do learners benefit from working in groups, including giving peer support and mutual assistance?		

OUTCOME 10 Self esteem/ confidence

This relates to schools', teachers' and school managers' policies and practices in helping learners to feel a sense of community, to take pride in their work and to be willing to experiment

Use of ICT to enhance school ethos	LEVEL	HOW DO WE KNOW?
Is there a culture of appreciation among school staff of the potential advantage of ICT for learning rather than a dread of the insupportable workload implications?		

OUTCOME 12 Teacher facilitating the learning of ICT principles and good habits

This relates to teachers' ability to develop their role as a facilitator of learning about ICT skills, insights and attitudes, and to the teachers' ability to make realistic contributions to holistic planning of children's learning experiences in ICT

Developing confidence in the role or guide in a situation of less than perfect mastery	LEVEL	HOW DO WE KNOW?
Are teachers able to deal with most of the operational difficulties they meet when they are making use of ICT within a curricular context?		
Balancing the established traditions of professional discretion and holistic planning for the benefit of learners through a whole-school approach to the progressive acquisition of knowledge, skills and attitudes		
Are teachers able to contribute usefully to school policies in ICT skill development?		
Can teachers use their own schemes of work to add value to overall school schemes for the development of ICT?		

OUTCOME 13 Teacher use of ICT as a rich and effective means of learning

This relates to skills in the selection, customisation and best use of appropriate software tools, to the development of new teaching styles embodying ICT use and to technical understanding to overcome routine operational problems

Taking personal responsibility for learning	LEVEL	HOW DO WE KNOW?
Is learners' use of ICT usually closely related to the purpose of the exercise?		
Are learners able to resume work from previous activities on their own and without fuss?		