

Assessing Student ICT Capability in Early Childhood Education

When to use ICT in Early Childhood Education

Before we begin to assess a child's ICT capability in this type of setting it is significant to determine when it is best to use it. When making your decisions they need to be based on exploiting the features of ICT to its fullest potential in order to achieve the desired learning outcome.

In the early childhood setting, there are three type of interactions with ICT that may be effective. These include:

1. Brief targeted moments – consists of activities that take 5-10 minutes to complete;
2. Spur-of-the-moment ideas – usually consist of child-initiated , spontaneous activities that can be accomplished with little prior planning and that make use of available materials;
3. Thematically linked activities – carefully planned, multi-layered activities that involve multiple opportunities to learn key concepts in various ways.

What is the specific ICT capability that children need to develop?

In early childhood education children need to just develop the basic ICT techniques that they will use throughout their schooling and adult career. Their understanding of ICT needs to be developed in the broadest form so that they become proficient users of ICT. The two areas that need to be developed include:

- Techniques that allow them to interact with the computer such as inputting information into the computer using keyboards and mouse effectively.

The learning goals for children are:

- Complete a simple program on a computer;
- Use ICT to perform simple functions;
- Use a mouse and keyboard to interact with age appropriate software;
- Find out about and identify the uses of everyday technology and use ICT to support learning.

Guidance on observation and assessment of ICT capability

The best way to measure the achievement of children in ICT capability is through your own personal observation. This can be coupled with well-thought out questions and listening and talking. Any assessment of ICT capability needs to be seen in this context.

When assessing it is not necessary to assess discrete skills as this will show through observation of whole tasks. For example, if they can use a paint program then you know that they can use a mouse well enough. As children interact with their peers, they will be able to demonstrate their ICT capability. You can make brief notes along with your observations to help you build a firm picture of their capabilities in ICT.

Just a reminder: There is more to ICT capability than just being able to use ICT skills and techniques. It is about having a growing awareness of their technological surroundings and that they know that ICT is a tool that they can use for their own purposes.

Questions to help with your observations on ICT Capability

1. Are they interested and curious about technology? Do they enter into discussion and make comments?
YES / NO
2. Do they experiment with ICT applications, finding things out for themselves?
YES / NO
3. Do they show enjoyment and concentration?
YES / NO
4. Are they able to use ICT for their own purposes?
YES / NO
5. Do they incorporate ICT into their role play and demonstrate an understanding of its purpose?
YES / NO
6. Are they able to find and start a program?
YES / NO
7. Are they able to navigate a program?
YES / NO
8. Are they beginning to experiment with tapping out letters using a keyboard?
YES / NO
9. Are they showing an awareness of electronic forms of communication, email, Internet and mobile texts?
YES / NO
10. Do they print and save their pictures?
YES / NO
11. Are they able to insert a tape and press the 'Play' and 'Eject' buttons?
YES / NO
12. Are they able to control a toy and make it move where they want?
YES / NO

Questions to prompt discussion with children:

- What happened?
- What can it do?
- How do we make it work?
- What do people use these for?
- I wonder what these buttons will do?
- What else do you like to use a computer for?
- What happened if.....?
- Have you had a go on the computer? What did you do?

Individual Profile Sheet

This provides a means to mapping their ICT capability progress through the observations made. It creates a link between a child's own views of their developing capabilities and a link back to planning, thus completing the planning and assessment cycle.

It needs to be completed two or three times a term and should not take more than five to ten minutes to complete once it has become familiar. It should be completed with the child in discussion. The same sheet needs to be used for every individual child and columns need to be completed for each observation so that it is possible to check progress across the two or three observations made.

Example

Date			
Name of Student			
ICT context (computer in class/network room etc)	Was the child working in the network room or on one computer? What was it?		
Software/web	Using the software standalone or on the Internet?		
Type (tutorial CD, office tool etc)	If the student was using software, write the type here.		
Working with partner? Who?	Was the student working along, with a peer, with the teacher, parent or other adult?		
Length of time	For how long?		
Confidence with hardware, mouse, keyboard	Rate the student's confidence with the hardware listed and/or with printers or other devices. Very, fairly, not very, needing support, etc.		
Software navigation (use of menus)	As above but for navigation within the particular software.		
File management (saving, opening, renaming work etc)	As above but for working with files, reopening them, knowing where to find them etc.		
Curriculum context. Using the computer to support work in English, Maths, Science etc.	How was the student operating within the curriculum context? Did the computer support the subject? Were there particular difficulties? Did the use of ICT help to improve the outcome?		
Student's view of their ICT	Ask the student about their view of themselves as a user of ICT. Were there significant things about this piece of work that pleased them?		
Give best fit level if appropriate	Using the ICT Capability Learning Continuum level descriptions, if appropriate, make a best fit judgement of the student.		
What next?	What activities with ICT would move the student forward?		

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Give best fit level if appropriate			
What next?			