

3. **PROFESSIONAL LEARNING**

Using ICT as a means to reflect and refine pedagogy

Teaching is a profession and with any profession comes a commitment to lifelong learning and development. Just like ethical practice is part of being a professional teacher, so too is reflective practice. While ethical practice protects children, families, colleagues and teachers ensuring everyone's safety, reflective practice ensures that this same group of people gets the best possible teacher; one that is committed to best practice.

Reflective practice can challenge teachers' ideas and actions. It provides opportunity to consider whether practice is consistent with beliefs. It allows teachers to consider new perspectives and ideas as well as connecting theory and practice.

(Broadley & Fagan, 2010, p.1)

The projects

One service chose to investigate the use of ICT in reflective practice. This service already had a strong 'community of learners' culture and so ICT was investigated to extend this further. Individual teachers used the video function on their still cameras to record themselves interacting with a child or group of children. Teachers first viewed these privately and then with a colleague with whom they had a trusting relationship. Information gleaned from this process supplemented written reflections recorded in teachers' reflective journals. They concluded that video was particularly useful because it provided the opportunity to view recordings several times and therefore look at their practice through different lenses.

Through their videos, teachers saw some aspects of their practice that did not sit comfortably with their philosophy and subsequently addressed these. Examples included, the balance between child-initiated and teacher-directed interactions, length of response time teachers used, and the degree to which they extended opportunities for learning.

Some teachers were surprised to find that, despite their thinking that the interactions were mainly child initiated, the reality was they were very much teacher-directed interactions.

Using the video as a reflective tool has allowed the teachers to shift this practice. We found by using the video as a reflective tool, teachers were able to assess the waiting time they gave children to process and respond. Again, while teachers felt that sufficient time was left, in fact it was evident that this was not the case as one teacher describes:

“I asked one question and they have just started thinking. I haven’t given enough time to start ticking the question over in their mind before asking another. James, four, said to me ‘Tania, I haven’t even answered the question’. When James made that comment I thought I have just done what I hate!” From viewing the video the teachers found they allowed more time for children to respond.

Teachers are more aware of what they are saying.

(Massey Childcare Centre report, [Kiwi and Kea sections] p.9-10)

In some services the ability for teachers to see and review their own practice was a by-product of their video work with children. In this example, video was being used to investigate ways in which children’s problem-solving capabilities were developed in the service.

One outcome we did not foresee was the powerful reflective tool video provided for teachers. Not only did we have debate about the role of the teacher in the video process but it also allowed the opportunity for teachers to reflect on their own practice when they took on the role of active participant.

Did teachers jump in too soon to provide children with the solutions they needed? Did they allow them time to think?

Were teacher’s interactions safety focused?

Do teachers have confidence in children finding their own solution?

Or were teachers driven by a desire not to allow a child to fail?

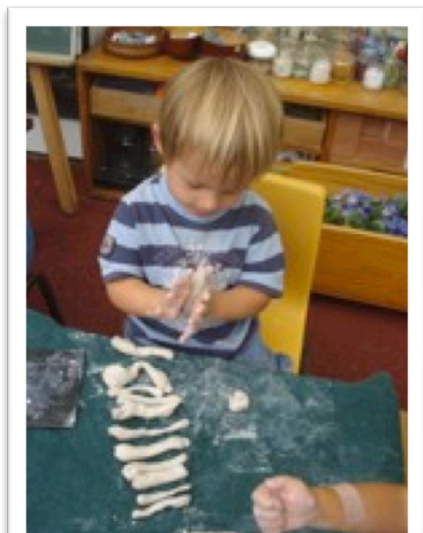
This provided a lot of food for thought for teachers in all interactions with children. It has allowed us to reflect on our own practice and make changes. Allowing children to have the time and space to find their own solutions, as well as encouraging children to take calculated risks, is now part of our everyday practice. Using ineffective strategies and having a tool such as video to recognise them can provide a powerful learning opportunity.

(Jonathon Rhodes Kindergarten report, p.14)

Use of photos for reflecting on practice

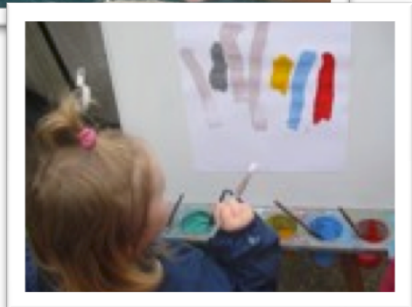
One service with a strong culture of professional collaboration examined ways in which digital photos could become a focus for provocation, not just for teachers but also children and families. They found they were able to use a series of photographs to see the direction that learning could take and then use this in their planning.

Collaborating together as a team is very important for all the teachers at Tots Corner, and we share many opportunities during the day and allocated non-contact time to communicate about shared learning experiences for both children and teachers.

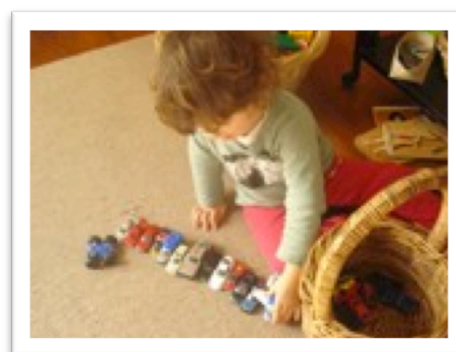


We take time to view photos and video clips giving us opportunities to see where certain interests of the children maybe extended—how small groups are constructed eg which children prefer to work together, which children like to work in small groups and those that prefer solitary play.

Recently viewing these photos and video clips has enabled us to see how many children appear to have a passion for visual order in their play and in their artwork. We have looked deeper into this through observations and professional readings.



A teacher reflection: Revisiting photos on the computer, we noticed that several children have a passion for visual order. This represented itself in many areas of their play. For example: lining up small cars, animals, blocks, clay, construction, peg boards and art work.



To increase our knowledge in this area, we have been researching topics around this (eg. schemas and mathematic concepts, whether it occurs in art) to link theory to our practice. We have discussed how this could impact on our planning. This is something we will continue to observe and document.

(Tots Corner report, p. 28)

Trusting children to use resources

For many teaching teams, learning to trust children with the ICT equipment was the beginning of a significant shift in their pedagogy. Several reports talked of learning to let go of control of the equipment and being surprised by children's capability to use resources responsibly themselves. They talked of a shift towards more balanced power relationships between teachers and children as a result of their trust. This in turn afforded children opportunities for planning, decision making and having responsibility for doing important work, as this example illustrates:

The biggest changes during our research came when we started to release some of that control back to the children. We were able to discuss ideas with the children, explore new avenues with ICT and have fun once the teachers shifted in their thinking. We needed to allow and trust in the children's ability to be respectful of the technology (which they were) and value the exploration they could do with control of the ICT use.

The single biggest shift in the teachers' learning was during a visit to the fire station in 2007. When planning the trip we decided to give complete control of the trip photography to the children. The teachers would not take any cameras at all and two children were chosen to be the photographers. During a group time we discussed with the children what kinds of things they expected to see and made a list of possible photos the photographers could get. It was a very nervous time for the teachers as complete trust was placed in the children to document the trip through photography.

The trip went very well and the photos the children took were exceptional. When reviewing the photos it became very clear the different ways in which children see the world. One of our favourite photos was of a Policeman that basically looks up his nose, because that is what children see!

(Greenwood Kindergarten report, p.15)

Taking steps to trust children with equipment was often something that teachers considered through seeing examples of this happening in other services. In the case of handing over cameras to children, attaching lanyards to these seemed to be a practice that helped put some teachers at ease.

When we began this project the children had no cameras. The staff shared one digital camera amongst four teachers. Therefore the children did not use the camera very often. Visiting other centres and reading several articles started the change of our ideas, values and beliefs.

...One of the biggest changes in our physical environment was providing lanyards and hooks for the cameras in the centre. Children could see and access the digital camera whenever they wanted to use it.

(Halfway Bush Kindergarten report, p.11)

ICT is relatively new as a curriculum activity. Whereas all teachers will have had experience of literacy, mathematics and science in their own education and life, that cannot be assumed with ICT. In this sense, ICT is unique amongst curriculum subjects because early childhood teachers may well be starting with a level of experience and skill that is similar or perhaps less than the children they teach. Therefore, building confidence and capability in ICT often has to precede attention to improving pedagogy.

Changes to pedagogy

It appears that once teachers had gained confidence in using particular ICTs they were more able to reflect on the role they themselves played in enhancing outcomes for children through this interface. Bolstad (2004) suggests broad areas in which the quality of early childhood pedagogy could be examined. These include the quality of interactions, the strength of the relationships, and the quality of physical and material resources made available.

Many services made general comments about teachers now responding to children as 'confident and competent' or recognising how instrumental their own role was in achieving effective outcomes for children. Several described they had altered group-time practices to include children's greater contribution to planning and presentation. A few illustrated more specific ways in which teachers had made changes to their practice. Here are three examples:

We have changed the way we set up our environment to cater for interests, being aware of children's thinking and values. We have had to examine our own values and beliefs about early childhood. As we realised that our children were truly competent we started providing less teacher directed activities and provided materials that allowed them to make their own discoveries.

(Riversdale Kindergarten report, p.14)

We developed a much clearer understanding about questioning and ways to encourage children's thinking rather than lead it. We are watching more and questioning less, which gives children much more chance to lead their own learning and explore the possibilities with ICT. We learnt to allow more time for children to experience and learn, and that many children will come to the experience at different times. Some taking hours or days to wait for the initial rush and crowd to lessen.

(Greenwood Kindergarten report, p.15)

We have found new ways to expand upon and enrich our interactions with children, especially in the area of revisiting children's learning and allowing children to have a louder voice in their own learning and development. There is a more even relationship between children and teachers. The child's opinion and interests are more easily heard and respected, with the teacher taking a step back to allow the child to step forward.

(Eastbourne Barnados Early Learning Centre report, p.12)

Conclusion

A small number of services provided evidence of how ICT – video and photos – could be used to support teacher's reflective practice. Interestingly in these reports, two of the services that provided evidence of ICT being used in this way were those who already operated a strong culture of reflective practice.

The evidence indicates that using ICT can be a very powerful tool for reflection but it is also scary for many teachers. A pre-requisite appears to be having trusting relationships and a willingness to interrogate one's own practice.

However, teachers turning the spotlight on themselves in the use of ICT may not be the only way in which digital technologies can transform pedagogy. From the evidence provided in these reports, it seems that when teachers recognise how capable children can be using ICT they are then prepared to amend their beliefs and practices, giving children more autonomy and control over their own learning. There was some evidence of this change rippling out into activities beyond ICT.