2. LOOKING THROUGH THE EYES OF A CHILD THROUGH THE LENS OF A CAMERA

INTRODUCTION

Type 'digital photography in the classroom' into the search menu of the internet and numerous sites appear with suggestions of making books, creating stories through photos, making labels, using photos to show instructions visually, and so on. Using digital cameras in the classroom is not new. There are research examples from girls’ education (Bach, 1998), inclusive curriculum practice (Carrington & Holin, 2005; Moss & Hay, 2004) and numerous suggestions for teachers on how to use a digital camera to photograph children on excursions, record special theme days, produce displays for the classroom, and provide images for school promotion boards or school magazines. What is missing is the use of digital photography in the classroom as a reflective tool enabling the learner to share their learning stories (Carr, 2001) in the form of visual narratives (Bach, 1998; Claidinin & Connelly, 2000; Moss, 2003). Through linking with narrative inquiry (Claindinin & Connelly, 2000; Dilute & Lightfoot, 2004; Kramp, 2004), images can reveal or lead to an understanding that sometimes cannot otherwise be told or uncovered (Bach, 2001; Clough, 2002), and further provide insights into subsequent relationship(s) to learning (Claindinin & Connely, 2000) and between learners.

The aim of this chapter is to present some of the findings from a doctoral level study with particular focus on young students using digital cameras to capture the learning environment. In introducing the learner to the technology of the digital camera as part of the learning and reflective process, there are certain aspects of the activity or task that are open-ended, and, with initial guidance and subsequent questions, students may explore their learning environments through the lens of the camera. Links to student-centred and learning communities (Wilson & Wing Jan, 2003), development of interdisciplinary skills and use of information communication technology (ICT) are made when children are encouraged to develop independence and problem-solving skills. The photographs presented and discussed in this chapter are all taken by students in the early childhood years attending full-time school. The chapter first discusses how the background and method of the study were established, followed by the inclusion of student voice through their photographs. The research affirms the importance of engaging with the digital camera as an everyday technology during the earliest years of schooling. In the context of new and existing curriculum frameworks that require
interdisciplinary learning, the research demonstrates the contribution and ease with which technology can become a part of everyday classroom experience and improve student learning.

SETTING

This research was carried out in the context of an early childhood classroom within an International Baccalaureate (IB) school where the Primary Years Program (PYP) was being implemented. The study was conducted throughout the latter six months of 2005 over 20 weeks. The student participants were members of a year one class where the researcher took on the dual role of researcher and classroom practitioner. Data were collected on different days according to the varying tasks completed in the classroom as part of the scheduled curriculum and assessment program. Details of this are discussed further in the method section of this chapter.

The children in this study were aged 5 to 7 years. Early childhood education in Australia usually covers the age ranges of 0–8 years (Dockett & Sumsion, 2004), but the experience can differ greatly across the Australian states and school systems. In Victoria, the second largest state of Australia, the year one classroom is the first year of full-time formal education offered to early childhood children. Upper primary begins with year three. Prior to year one, children have the opportunity to attend kindergarten or an early learning centre from 3 years of age. After two years in these environments children enter the first year of primary schooling at the prep (preparatory) level, which usually leads into year one.

The specific setting in this research was an ELC3 (Early Learning Centre 3-year-olds) to year 12 independent Anglican school with single sex and coeducational campuses located in the southern metropolitan area of Melbourne, Australia. The two junior schools (ELC3–6) were going through the authorization process associated with becoming a registered IB school, and were in the first year of this process when the study was carried out. The PYP is designed for students aged 3 to 12 years and focuses on the "total growth of the developing child [with] a transdisciplinary programme of international educational design to foster the development of the whole child" (International Baccalaureate Organization, 2005a). In Australia, the first school to teach the IB was authorized in 1978, and at 2005 there were 101 International Baccalaureate schools nationally offering one or more of the three IB programs. Currently there are 31 schools offering the Primary Years Program (3- to 12-year-olds), 47 schools offering the Middle Years Program (11- to 16-year-olds) and 45 schools offering the Diploma Program (16- to 19-year-olds) nationally (International Baccalaureate Organization, 2005b). As of 2005, the IB programs were offered in 1,923 schools in 124 countries (International Baccalaureate Organization, 2005b). The International Baccalaureate Organization (IBO) mission is:

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to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end the IBO works with schools, governments and international organizations to develop challenging programs of international education and rigorous assessment. These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

International Baccalaureate Organization (2005c)

PARTICIPANTS AND ETHICAL CONSIDERATIONS

This study involved 17 year one children, ten female and seven male, aged between 5 and 7 years. The mean age was 6.06 years. Ethical permission was sourced from parents of all children to be involved in the study, with permission also given for the children's photographs to be shared in academic writing and presentations. All students invited to be a part of the study accepted. It was important in introducing this study that all participants and their parents understood what the study was about. An information pack was home to parents and children. All children were involved in a class meeting to invite them to participate and to allow for any questions. Hedy Bach (2005) notes that informed consent and letters of intent are a part of the ethical process, but stresses we must make sure that these processes are extended, not only ensuring that participants fully understand the study, but so there is a developed process of open communication in this preliminary but significant stage of the research. Ongoing and open communication was necessary to allow for clarification and questions to be answered. Parents, teaching staff and children were encouraged to talk about the study, and open dialogue occurred throughout the period of the study. Parents and the school principal were invited to view photographs and watch the children participate in the study as part of their regular classes. This level of communication enabled any issues to be dealt with immediately and ignited engagement within the learning community.

Both parents and children expressed excitement in having their photographs used in publications, such as this chapter, to show their thinking, ideas, and, most importantly, the workings and benefits of using digital cameras in the classroom to enhance learning experiences — all agreed they didn't want their faces to be blurred as it "would take away from the stories they wanted to share" (Gemma).

Gemma's comment brings to light one of the many ethical decisions to be made when working with children and photographs in research, and which are raised throughout this book. It is important to note that for this study, initially, a decision was made with key stakeholders (the school, parents and children) that faces in photographs would be blurred; however, during discussion an overwhelming resistance to this was present. It was decided therefore that because ethical permission had been granted by all parties involved in the study, photographed faces would not be blurred in the final production. This ethical decision was also
made to support Gemma’s comment mentioned above and to provide readers the chance to see the photographs as they were intended and “to supply [the reader] with the knowledge and ability that would make such a perspective possible [to hear the children’s stories] and provide it with legitimacy” (Schirato & Webb, 2004, p. 18). This ethical choice was made based on the belief that the children being photographed were the average age of 6 years and that the natural growth and rapid body changes would assist in anonymity due to readers viewing the photographs over time. All stakeholders agreed that all children’s names would be changed and given a pseudonym, and that the school where the study was carried out would not be identified to prevent readers from specifically identifying the student participants and setting.

METHOD

Participants were asked to contribute in two ways. Firstly, they were asked to join in all class activities as usual. Secondly, the participants were invited to use a digital camera to record events that are important to them during class activities. This is an example where photographs were being used as a way to preserve the appearance of an event or a person (Bach, 1998; Bach, 2001). It is a method that allows for and makes visible the different parts or narratives of a story, as well providing an opportunity to explore different positions within a dynamic environment or situation. Close links were made between this and reflection on learning as discussed later in this chapter.

Following scheduled sessions within the curriculum, where photographs were taken independently, the participants were invited to discuss and reflect on why they had taken the photograph(s) (intention) and what it/they meant to them. This discussion was either a written reflection (reflection journal entry, graphic organizer such as a mind map or a graffiti wall) or a conversation one-to-one with their teacher, a peer, or a small group of classmates or the whole class. The children always had a choice of whether they would reflect and how they would do this.

In the early childhood classroom not all students need to be working on the same task or activity at the same time. This allows for addressing different developmental stages and learning styles, while also allowing for student inquiry and negotiation. There was a timetable when each child could use the camera. After the student finished taking their photos, the images were downloaded onto a computer and the child photographer would share his/her narrative. In the sharing of photographs and the narratives that emerged, close connections were made to ongoing reflections about their learning.

In using the digital camera in the classroom setting to record learning, careful consideration had to be given to minimising staged, posed or artificial environments. To overcome this potential problem students were introduced to the camera early, before the data collection began, through teacher use and then by use themselves. With ongoing use of the camera, and initial reinforcement of “not looking at the camera so we can see you working”, the students accepted the camera as a normal part of the classroom routine. Peer monitoring began to occur over time, with friendly reminders by camera users and observers to “not look at the camera”.

Data collected during the study included student-taken digital photographs (a final set of approximately 900 photographs), conversations, and artefacts (reflective work samples). Conversations with the students one-on-one or in group situations provided the dialogue to support the visual narrative (Wood, 2000; Bach, 2001). Documents and artefacts analysed included the student’s reflective journal, graphic organizers such as mind maps, stories or writing exercises, and illustrations completed as part of the set curriculum and related to their photographs and narratives.

The visual representation/cartoon (Figure 1) was designed to show the process each child went through when using the digital camera. It was developed during the research process to also show the inquiry questions underpinning the process associated with using the digital camera in the early childhood classroom. What emerges are closer associations between the learners, that is the students and the teacher. Each is becoming reflective ‘in’ practice. The notion of teacher inquirer (Kincheloe, 2003) whereby ‘teachers are viewed as learners’ (p. 18) thus parallels the student experience. The visual representation of this process affirms the usefulness and value of juxtaposing image and inquiry, represented by visual texts and words. This technique evolved through the author’s need to clarify a developing method. The protocols are an example of how classroom researchers can demonstrating how visuality works and adds to the interdisciplinary palette of qualitative research method.
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A weekly schedule was used allowing all children to have a 40-minute turn at using the digital camera. Times were rotated each week so that students had an opportunity to use the digital camera at different times and on different days.

Even though there were scheduled times, each child had the choice as to whether or not they would use the digital camera. If the choice was otherwise, then the camera was left on the teacher’s desk allowing another student to have the opportunity to use it.

One student used the camera at a time.

No limitations or restrictions were given other than to place the camera strap around their wrist in case of an accident.

Clarification of how to use the camera was offered each time it was used. All students were introduced to the camera (how to turn it on/off, how to take a photograph and how to view a photograph) during a class discussion and trial of how to use the camera at the beginning of the study.

Students being photographed do not look at the camera or pose as the intention is to capture the natural learning setting. This was agreed upon during a class discussion involving all participants.

The second cartoon frame shows the next step whereby the child photographer takes photographs of what interests them in terms of learning.

- The child was free to move around the classroom at his/her own discretion.
- The number of photographs taken was the choice of the child, no limit was set.
- Dialogue was permitted between the photographer and the photographed in terms of their natural inquiry.
- All children were able to view the photographs after they were downloaded, thus not distracting the learners and the photographer during time of capture.
- Opportunities were provided for the photographer to go outside the four walls of the classroom to capture images. Another child always accompanied the photographer but was not to interfere with the photographer’s intentions.

On completion of taking the photographs, the students returned the digital camera to the teacher’s desk (shown in the third frame).

- The images were downloaded immediately by the teacher onto a laptop. This allowed for immediate viewing and for the printing of images selected by the child photographs. All images were saved in a file specifically marked for each child. The images were saved as jpeg files and dated according to school term and week.
- Initially, the teacher downloaded the images onto the computer from the digital camera. However, some children indicated that they would like to “have a go” and thus learnt the steps to download their own images. Teacher support was always provided if the child requested, had questions or wanted reminders of what to do next. Some children taught others to download images.
- Once download was completed, the images were deleted from the digital camera. This allowed for room on the digital card for the next child photographer to capture their images with no space restrictions.
All images were viewed on the teacher’s laptop. Teacher-student for conversations followed. However, if a child expressed their preference to write a reflection about the photograph, a choice of image(s) were selected by the photographer and the image(s) would then be printed. The final frame illustrates the whole class sharing of the student voice and how the student photographer’s intention(s) were storyed. Simultaneously the teacher was also considering the student perspective and how this would interact on future practice.

For one-to-one conversations (with teacher or peer/s) the following triggers were used to assist in reflection if needed:
- Tell me about your photos.
- Why did you take that shot?
- What have you learnt from the photo?
- Is there anything else happening?
- Do you remember taking these?
- Do you remember these photos?
- Anything else?
- Tell me about yourself in the photo.
- What do you see?
- Tell me about what you have learnt in taking these photos?
- What do you think this photo can teach us?

Image 1: Photograph (taken by Max) of a conversation between teacher and a student photographer at the teacher’s desk while viewing the images on the laptop screen.

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If a child elected to reflect in written form, some of the sentence starters used included:
- I remember ...
- The story of my photo is ...
- This is important to me because ...
- The photo tells us ...

In reflecting in writing, the children could write sentences or reflect using a graphic organiser such as a mind map or graffiti wall. There was also a choice to do it by themselves, a partner, to share with the whole class or a small group of peers.

Conversations and field text

Conversations with the child participants, one-on-one, provided dialogue, and thus field text, to support the photographs (Wood, 2000; Bach, 2001; Krippendorf, 2004). For this study it is important to note that the term “conversation” is used rather than “interview”, as set questions were not applicable. Rather the collection of field text was not stimulated by set questions, or the same set questions for each child, as consideration had to be made for what had been photographed and each particular child’s reflective level and abilities. As with all classrooms, not all children are working at the same levels, same speed and same understanding with the same knowledge. The range of student need was taken into consideration by offering sentence starters or open-ended reflective questions that could assist with the dialogue supporting the photographs. On many occasions the participants elected not to comment about a photo. Acknowledgement and acceptance of this was made rather than forcing a comment that may not support the meaning of the image for the student.

Children’s voices are integral to knowing what they think (Dockett & Sumsion, 2004; MacNaughton, 2003; MacNaughton et al., 2006). This research wanted to hear students’ voices without judgment, analysis or being inhibited by interview techniques where the children “lose” their voice (MacNaughton, 2003). Conversations enable authentic information to be shared (Ostrosky, Gaffney & Thomas, 2006), especially with young children who are learning to read and write. In using student-taken digital photographs and reflection for data collection, care was taken to avoid limiting the information that children gave during the conversations. It was felt that this information constraint would happen with an interview structure. What was being sought here was more naturalistic results (Hanson, 1998) and a respect for the richness of the information the students shared (Maxwell, 2004; Sprague, 2006).
Image 2: Photograph of children reflecting, using a graphic organizer. In this context the child photographer elected to share his photo with a small group of peers.

Image 3: A work sample of Rose’s mind map about her artwork.

- When the teacher was spending one-to-one time with a child, the remaining members of the classroom would be participating in curriculum activities. A class discussion occurred about wanting to have one-to-one time with the teacher to talk and reflect about photographs – the children wanted to have their time with the teacher without interruptions. One child commented “it’s only fair because we all get to do it” (Irene). A system was suggested and agreed upon by the children themselves that if someone had a question to ask during someone else’s one-to-one time, they would ask three classmates before interrupting the teacher and child photographer during their discussion. This system worked very well and the children supported each other.

- If a child needed to go to the bathroom, a visual sign of a capital “T” made with both hands was displayed to the teacher. No verbal communication was necessary and no interruption to conversations with the child photographer.

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The child who needed to go to the bathroom would take a classmate with them and they would make themselves noticed on return to the classroom.

CONVERSATIONS: PHOTO SELF ELICITATION, VISUAL NARRATIVES AND LEARNING STORIES

This study uses photo self elicitation (Harper, 2002), where close associations are made with elements of photo elicitation, conversations and reflections from the photographs generated by participants. Photo elicitation was first coined by John Collier in the mid-1950s when he proposed that his research team use photographs during interviews to explore more in-depth responses with participants in a study about quality of housing (Collier, 1957). Collier found that by using the photographs, memory was sharpened.

Elements of photo self elicitation have been used and developed for this study in which the participants, early childhood children, respond to the images they have taken through reflection activities in the classroom, such as conversations, graphic organizers, graffiti walls and writing activities. The focus is therefore student centred, on the student voice and being. Children capture images that are meaningful to them; they created them by having full use of the digital camera, and this is validated through recognition of themselves and their lives in the narratives produced (Carr, 2001; Bach, 1998). Visual narrative in this research has been seen as a specific mode of constructing and constituting reality (Prosser, 1998).

The self elicitation method used in this study has been linked with the visual narratives that the children produce and that are, in turn, built on learning stories (Carr, 2001). Learning stories are a combination of written word and photographs that reveal children’s strengths and interests. Fundamentally, they contain three elements: a story of something a child achieved or did; an analysis of the learning associated; and suggestions for future possibilities or opportunities (Hatherly, 2006). Learning stories are more commonly been used in the early childhood setting of New Zealand (Williamson et al., 2006) and are beginning to emerge as a formative assessment method in the Australian context. Visual narratives are closely linked to learning stories in that they highlight strengths-based and interest-based learning in the natural setting (Williamson et al., 2006).

In considering the context of the early childhood classroom in Australia, policies support a culture of empowerment of all children through the use of natural learning opportunities and environments (Victorian Government Department of Human Services, 2003). The relationship between visual narratives, learning stories and photo self elicitation allow for inclusive practices that are student centred, negotiated, inquiry based, and for student voice to be heard (see Figure 2). Combining visual narratives with learning stories, shows a child following his/her interests and hence engagement in the learning process (Williamson et al., 2006).

The narrator’s (child’s) interpretations are interspersed throughout the narrative – in the case of this study, the sequence of photos (visual narrative) and the text provided through conversations or reflections. The narratives in this study that have been
accessed from the photo self elicitation process are different from learning stories in that, first, the student voice is not always highlighted during a learning story, and, second, the learning stories that include photographs do not include child-taken photographs, but rather photographs that record an action or piece of work taken by a teacher or teaching assistant.

Figure 2: Relationship between visual narratives, photo self elicitation and learning stories.

DATA ANALYSIS

As the research took place in my classroom, the children were asked to reflect regularly on the learning experiences, including using digital photography. Subsequently, the children’s photos were collected and collated as data, as were the responses to the process of taking the photographs and the reflective responses on learning and teaching via conversations and reflections.

Data collected were analysed for change and development over time and coded according to themes that emerged. In looking at visual narrative, there is a variety of frameworks that can shape analysis (Rose, 2001; Kramp, 2004). “Analysis of narrative” (Polkinghorne, 1988; Kramp, 2004), characterized through identification of themes within each story and modeled on Bruner’s (1996) two kinds of reasoning or two kinds of knowing, were selected for this study. Themes were presented in a matrix for in-depth analysis. A matrix was seen as an effective way to bring together the common and individual themes, as all aspects can be seen in relation to each other while remaining explicit and meaningful. These themes are described further in the chapter as I bring together the issue of interdisciplinary learning and a learning community.

PHOTOGRAPHS IN RESEARCH: THE ROLE OF VISUAL NARRATIVE

Images created with photographs thicken ways of seeing. (Bach, 2001, p 1)

The use of photography as a research method is vast and varied, as is the terminology used. The literature, although not a complete list is given here, mentions photo voice (Wang & Burris, 1997; Strack, Magill & McDonagh, 2003), photojournalism (Davis, 2004), photo essay (Ellum, 2005), digital storytelling (Carr, 1998; Ellum, 2005; Meadows, 2006), photo elicitation (Harper, 1998; Sampson-Cordle, 2001; Loeffer, 2004; Packard, Ellison & Sequenza, 2004), photo evaluation (Schatz-Hachwich), autophotographing (Clancy & Dollinger, 1993; Ziller, 1990; Emmison, 2004), and visual narrative (Bach, 1998; Carrington, 2001, Eber, 2002; Moss, 2003; Schirato & Webb, 2004). This particular study refers to visual narrative, a series of visuals – in this case, photographs and the stories associated (Moss, 2003; Moss & Hay 2004). Denzin and Lincoln (2000) note that the visual narrative tells many different stories at the same time as it mixes and combines multiple images. Cultural meaning, points of views, space, interactive sequences, shifts and so on, come from the viewing of photographs. Research on visual narrative draws upon the use of photography to evoke memory in our lives, a memory that can be used to construct and reconstruct stories. Photographs can be used as a way to preserve the appearance of an event or a person or as a metaphor of an experience that has been closely associated with the initial idea or relationship (Bach, 1998; Bach, 2001b). Photography makes visible the different parts or narratives of a story as well enabling opportunity to explore different positions within a dynamic environment or situation. Visual narrative, however, is not complete without narrative support through dialogue and language. Photographs do not themselves preserve meaning (Wood, 2000; Bach, 2001b) as they offer appearances for which a narrator can make us understand and provide us with a prospect to reflect and grow from our experiences.

Thorough investigation has not been carried out into the use of visual narrative in the educational environment (Prosper, 1998) or early childhood educational settings. In education the exploration of stories and images has been touched on in areas of story telling through moving images and literacy engagement, e-learning and technology (Ellum, 2005). There has been work
done on hidden curriculum (Bach, 1998), inclusive curriculum (Carrington, 2001; Moss, 2003; Ainscow et al., 2004) and using digital images, as part of the assessment process in the early childhood classroom (Carr, 1998; Carr, 2001). Research into the role visual narrative can have as part of the curriculum and assessment process has not been explored extensively, nor have these connections been made to reflection and metacognition and the reflective practice of teachers.

Visual narrative in education is potentially quite powerful – photographs, paintings, drawings and images of student work are currently used frequently in displays but not extensively as part of the curriculum or as a way to hear student voice. Photographs can be a tool used for displays in school classrooms and corridors, promotion of schools on billboards at the front of the school entrance or on a major highway, in school documents to prospective parents, or they can be seen each week in newspapers with advertisements for employment opportunities for teachers. In the early childhood context, these situations are familiar but rare for teachers and centred. The message sent across to the audience each time is that of an insight into the type of experiences a child may have in the classroom at a particular school. But visual narrative is also a tool for the teacher as learner to reflect on what is happening in their classrooms, one that is often easily forgotten and thus as yet not acknowledged extensively in the literature.

A LEARNING COMMUNITY

In this chapter I want to expand further on the interdisciplinary skills that developed in the students while they participated in this study. Once basic camera skills were modelled and practiced, children were naturally inspired and curious to continue using the camera in a way that enhanced their learning, while also empowering them to introduce their own ideas and inquiries. The concept of the children’s inspiration being brought into the curriculum was empowering in itself. Using a digital camera in the classroom lends itself to negotiation options where children understand that using a digital camera is not a novelty or simply a tool to produce pictures for display only, but rather a tool for reflection and development of their ideas, making visible their unique learning community.

By inviting the children of this study to use digital cameras, to photograph learning that was important to them, a learning community was established and strengthened. The themes that emerged in the data were students supporting each other through their use of the camera, peer teaching, a creation of a sense of belonging, engagement and igniting interest in watching others more closely when using the digital camera, and new connections to peers whom they hadn’t previously worked or played with before.

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Engagement and Igniting Interest

For some students, the possibility to be "cameraman" as the participants affectionately called the process of using the digital camera, was full of so many opportunities. The use of the digital camera, as a regular technology item on hand in the classroom and as an activity that was ongoing, built confidence and turned some children from being scared, quiet, nervous and shy into confident students with beaming smiles; they became passionate, enthusiastic and purposeful in their learning. The students that stood out in this study were those who had been previously labelled as "learning-needs students" or "students who found school hard", as they were described to me by a colleague before I started working with the children. For these students, the camera became a tool that allowed them to move around the room, to interact with their peers, to photograph and talk about what was meaningful to them, and allowed them to shed unproductive labels and become a part of the learning community. Throughout the process of reflection, verbal at first, many students found they were gaining confidence in expressing themselves and sharing their voice, which lead to experimentation in writing about their photographs. Reflection about their photos encouraged exploration, raised confidence and self-esteem, and aided in developing literacy skills.

Stan was one of the students who connected well with the digital camera: “Can I be cameraman? I’d really like to take the class working so well.” He became more confident in becoming a part of the learning community. With his new found confidence he was able to interact with others and show them skills and ideas about how he was using the camera. Stan particularly liked exploring different ways he could use the camera. These are some of Stan’s comments and images taken at different times throughout the study.
technology lesson, Bradley came up to me and shared a camera he had made out of cardboard and said: "I made a camera in class to record people and what they were doing."

Bradley was another student who became engaged in using the digital camera to photograph learning that was important to him. On one occasion during a

Camaraderie

Camaraderie, closeness, friendship and trust, developed and extended within classroom peer interactions connected closely with discussions about the photos being taken. Comments such as, "can I have a look at your photos?", "I like this photo" or "ahh, look at that" often trigger discussion between the photographer and fellow classmate, stimulating trust and support in individual ideas, questions, observations and stories.

Full of pride

Reflecting after having taken the photographs in written form generated a dominant theme of being proud of one's photographs. When asked trigger questions such as "tell me about your photos?" or "why did you take that shot?" the students would often comment about how they would like other people to be proud of their photos or that they would hope they like them. This openness to sharing their photographs.
as another form of reflection on their work was inspiring and encouraging for others. Again it helped in the community feeling of using the photography within the classroom as a form of reflection of and for learning.

Social support

Rose declared one day: “You take photos of our work so I wanted to take photos of others’ work so you can see them.” The role of the digital camera was extended from the teacher taking photos of learning for display and discussion to students also using the medium to record peer work for the same purpose. The discovery being one of their own, that is the picture told the story and that no further discussion was needed again, affirmed the role that images play in social connectedness and support for learning within the classroom.

Image 7: “I took a photo of the people’s work. I thought it was very nice and they tried their best. When I took a photo of the people reading that tells me they are learning about words.” (Gemma)

Image 8: “I can’t stop taking photos of Celia’s work ... she’s soooooo talented.” (Rose)

Of particular significance was the social support students were showing to their peers. During reflection on the photographs, many would comment about how well someone was working or that they were listening well. Students noted if their peers were focusing during learning tasks. This is notable in light of the self-regulation of the student photographer, and in terms of peer influence within the classroom and how powerful peer interaction can be in terms of influencing others.

During a Christmas decoration-making activity Rose commented: “The story of my picture is, well, I think all people have a talent for colouring in and how they have thought about what they are doing.”

Image 9: Photograph by Rose of a peer working.
Kinaesthetic learner and responded well to the use of the camera to reflect upon his own and others’ learning. The role of “cameraman” brought out Stan’s ability to give positive feedback to his peers and to develop relationships with others; helping his peers to understand the role of the camera in the classroom, while also assisting them in camera usage (peer teaching).

Stan was able to praise his classmates through his photographs and reflections with this acknowledgment for their behaviour. In turn, this was reflected in his own behaviour. Stan’s self-regulation and self-monitoring became evident when his own learning behaviour in the classroom became more productive. Peers began to accept him for being able to work productively in small group work, being able to contribute to class discussions through providing meaningful answers or thought-provoking questions. Most of all Stan was able to work independently to a level that was well beyond expectations previously set for him. His peers noticed the change. Stan was able to change his behaviour through seeing others behaviour through the camera. Stan was able to distinguish much better between acceptable behaviour in the learning environment and behaviour that inhibited him and others.

Through this process Stan became “Stan the Cameraman” to his classmates, and became a valued member of the learning community where previously he had been excluded.

Using the camera as a tool to reflect on classroom occurrences allowed students not only look at the learning but to interact with other peers that they perhaps wouldn’t regularly play with or work with in the classroom unless directed to. The camera permitted a breakdown in social barriers. Natural inquiry was sparked via interactions through the digital camera. Following is a sequence of photographs taken by Hannah of James with Celia and Max, who began observing the process and then became a part of the experiment:

Stan: [Speaking to Hannah] Hey, why don’t you take photos of this experiment? Do you think James’ hair will stand up like an echidna with the balloon?

Celia: It will look funny.

Hannah: Let me see, [Takes one photo, then another, pauses, then another.] Look at these… [Shows digital camera screen to Stan, Celia and James] It shows his hair really standing up.

Celia: The balloon is stuck to his hair.

James: Cool, let’s show Miss Lemon… she’s going to love it! [With a big grin, laughs and runs across the classroom, digital camera in hand. Hannah is following.]
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Learners as photographers

Students as image-makers make images that are meaningful to them (Bach, 1996). These images then bring meaning to an audience with the help of the student photographer’s voice. It provides a space for the children to show and tell their stories of learning. Pictured through their camerawork the students can document their realizations of knowledge and understanding. Photos in themselves do not narrate. It is the meaning that is given, the voice behind the photograph, that allows for memories to be triggered, the place and time. And that, in turn, brings the photography to life (Berger, 1980; Bach, 2001). Just as we read a book and get different meanings from characters’ actions, we too get different meanings from reading a photograph because “people approach it from different backgrounds and perspectives” (Schorrato & Webb, 2004, p. 16).

Bradley reminds us of these multiple perspectives through his framing of the following photograph taken early in the study of his peers participating in a discussion with the teacher.

*Image 15: Bradley’s photograph reminding us that the teacher is not always the centre of the classroom.*

When the camera is in the hands of a child, it is like looking through their eyes (Froser, 1998; Bach 2001). Take notice of how they construct the frame, often at their eye level. To us, adult heads are cut off. But to the child, the adult may be “in the way” as Bradley explains and what is important is exactly what they see right in front of them – an interesting insight into the perspective of a child about a particular situation.

To further build on the importance of highlighting the child’s frame of reference Schirato and Webb (2004) write that taking photographs ignites different interpretations, as does the reading of photographs — “readers will want different things from it” (p. 16). Every act of perception takes place within a context that

Images 12, 13, and 14: Visual narrative taken by Hannah of James, Celia and Max inquiring with a balloon
Orients, influences or transforms what we see. For example, when, as an educator, I look at Stan’s photo of the playground, I could make the assumption that this image was taken as it is a place that Stan and his friends spend a lot of time at during school lunch breaks.

![Image 16: Stan’s photograph of the sandpit without his voice.](image)

However, through conversation about the photograph, and thus with Stan’s voice taken into consideration, a different meaning is given based on context. This links very closely to the notion that “the process of making and negotiating the visual is always informed by the notions of attentiveness, selection and omission, and context” (Schirato & Webb, 2004, p. 14).

![Image 17: Stan’s photograph of the sandpit.](image)

“I’ve really good playing in the sandpit as nothing wrong can happen. But one day I hit my knee on the wood. I promised it hurt and hurt and hurt. When the bell rang it was fine, I don’t know why.” (Stan)

Images can represent life or learning as it happens. They represent and suggest a visual representation similar to that of journal entries, artefacts and field notes (Bach, 2001). Using visual narrative in the learning environment gives us an opportunity to evoke memories, as Bach described it, “a memory around which we construct and reconstruct life stories” (2001, p. 7). Visual narrative research makes visible different parts or stories that can then be later looked upon, just as photographs are used in the historical or family history sense. Most of all it enables us to look at a scene in our lives with different perspective – transformation of fixed memories is available (Bach, 2001). Photographs allow us to learn, reflect and grow from our experiences.

We can learn from our photographs in the classroom as they enable us to come to terms with our experiences, positive or negative. They are indicators of celebrations, personal achievements, actions and interactions. Photos can assist us in exploring reoccurring stories (Spence, 1986; Bach, 2001). Each time we look at a photograph we have the opportunity to view it through maturing eyes, to see ourselves differently, which gives us the opportunity to learn and grow.

Bach (2001) asks the questions: Why did the child choose a particular frame? Why was one particular moment of time responded to more than another? She goes on to say, “There is always a story behind the story” (2001, p. 7). It is the photographs that slow the moments in time, and these moments are what allow for further study. They can be viewed and explored individually or as a collection that makes a mini-narrative series (Spence, 1986; Bach, 2001).

**WORKING WITH(IN) A CURRICULUM FRAMEWORK**

As bell hooks (1994) states, “to educate as the practice of freedom is a way of teaching that anyone can learn” (p. 13). Further, Delors (1998) reminds us that the concept of an education pursued throughout life, with all its advantages in terms of flexibility, diversity and availability at different times and in different places, should command wide support … there is a need to rethink and broaden the notion of lifelong education. Not only must it adapt to the changes in the nature of work, but it must also constitute a continuous process of forming whole human beings – their knowledge and aptitudes, as well as the critical faculty and ability to act.

Delors goes on to say that “one might even image a society in which each individual would be in turn both teacher and learner” (Delors, 1998, p. 5). In addressing the learner of the 21st century, interdisciplinary skills, including reflection, use of information communication technology (ICT), inquiry, peer teaching, student-centred focus and building learning communities, are now what our curriculum must be providing (Delors, 1998; Latham et al., 2006; Groundwater-Smith et al., 2007). As James Gee (2003) reiterates, there are multiple ways of knowing and expressing yourself and these knowledges must be
ACKNOWLEDGED THROUGH MULTIMODAL FORMS OF LEARNING — VISUAL, TEXTUAL AND SPATIAL — WITH STRONG CONNECTIONS TO LIFELONG LEARNING. WHEN A STUDENT USES A DIGITAL CAMERA IN THE CLASSROOM AN OPPORTUNITY IS PROVIDED WHEREBY STUDENT VOICE IS HEARD WHILE SIMULTANEOUSLY DEVELOPING LIFELONG LEARNING SKILLS ASSOCIATED CLOSELY TO WHAT MANY CURRICULUM DOCUMENTS CALL INTERDISCIPLINARY SKILLS (MACNAUGHTON ET AL., 2003).

FIGURE 2 DEMONSTRATES WHAT OCCURRED FOR THE STUDENTS INVOLVED IN THIS STUDY.

This model represents the relationship between using the digital camera and how the connections to information communication technology (ICT), reflection, student voice and communication are a part of the core skills for the early childhood children in the 21st century. An example of this application of long life learning was seen with Mark as he shared his engagement with taking photographs in the classroom and with his family. He was able to use and share his newly developed skills and interest in a different context. The dialogue during a conversation between Mark and myself was only brief but is one example of the impact the use of the digital camera in the classroom was having in other areas of the students lives, while also demonstrating the importance of child voice.

Mark: On my holiday I was allowed to take photos on my mum and dad’s camera.
Narelle: Haven’t you done that before?
Mark: No. I wasn’t allowed to use it. [Pause.] Mum saw my photos I took with you. She thought they were good and wanted to see what I would take on our holiday.
Narelle: Did you talk about your photos?
Mark: Yeah, of course! ... Like I do with you. Mum said I saw things she didn’t. Dad said I talked a lot about the photos, more than I talk at home sometimes. My sister wanted to have a go as well. She liked pointing things out on the photos. I liked sharing what I think. Now everyone can see what I see ... see by the photos [points to the images].

Another student, Stan, applied his enthusiasm for the process by bringing in a Polaroid camera from home. He had shared his new classroom experience of using a digital camera with his father, who works in the multimedia industry. Following their conversations, Stan brought the Polaroid camera into class and proceeded to take photographs of what was important to him, building on the reflection process that was being carried out within the classroom as part of the curriculum program. A photograph by Irene shows Stan waiting for some of his Polaroid photos to dry.
Image 18: Stan with Polaroid photographs he had taken in class on his Dad’s Polaroid camera.

On seeing this image, Stan commented: “I like taking the photos so much with you that I asked my dad if I can use his camera. He gave me this one [Polaroid]. The photo comes out the front and you shake the paper. It’s like magic and there is the photo I took. Now I can keep my photos and you can keep yours.”

CONCLUDING COMMENTS

Growth in interdisciplinary skills, including reflection skills, was evident in all students who participated in this study. To verbally respond to a visual, the photograph or series of photographs became a regular occurrence in the classroom. As seen by the graphic representation in Figure 1, students built on the process of using a digital camera in the classroom and reflected on their own photographs in a one-to-one situation with their teacher, while also sharing their photos with the whole class or small groups. Children were encouraged to offer their photographs for classroom activities to promote reflection such as wall displays, graffiti walls, or graphic organizers. Children were invited to draw incomplete sections of a photograph and to then reflect further and provide additional information to the narratives. Often, after small group or whole class activities, a photograph was used to reflect on where sentence starters were provided. Reflection of a photograph would be in written, verbal, or visual form providing students with an opportunity to reflect by choice.

Students gained confidence in their ability to explore language to describe what they had experienced and seen around them in the learning environment. Although not discussed in this chapter, a positive aspect of this study was the development of language skills, both verbal and written, from all students through the reflective process. Particular growth occurred in those students with low self-esteem and learning difficulties associated with reading and writing. Through taking their own photographs and then reflecting via various modes, students language use improved, as did their sentence structure and use of past and present tenses.

Although this chapter doesn’t discuss specific links to reflective teacher practice, the method overall is a further way to develop and refine teacher knowledge. The data presented touches the surface of the potential that visual narrative has within the classroom as part of the curriculum and assessment processes specifically related to interdisciplinary skills. The student participants of this study have undoubtedly been touched in a variety of ways, including aspects of everyday curriculum along with growth in communication, reflection and authentic real life learning skills.

NOTES

1 At a glance, this image shows a teacher-produced text where it is expected that all children are working on the same activity. It is important to note that this photograph and dialogue by Stan offer a rich conversation about the learning community rather than the restrictions such an activity can offer. The photograph was captured towards the end of the school year when a colleague had constructed a “Christmas book” for the two classes of year one children to complete. Compromise was made to complete just some pages from the book, and in a discussion between me and the children of this study (my class), it was agreed that the book would not be used often but “through times”. Stan’s photograph allows for consideration of what is being offered in the classroom via the closed tasks in the Christmas book. It illustrates what can occur when real world contrasts between teacher practice, student voice and reflection are juxtaposed.

REFERENCES


3. VISUALITY AND REFLEXIVE LINES OF FLIGHT

Studying boys’ assemblages of learning in a year 8 classroom

INTRODUCTION

This chapter considers how themes from postmodern philosophy of Deleuze and Guattari (1987) and Grosz (2004) can be woven into a study of boys’ behaviours in a coeducational classroom to depict diversities and assemblages of classroom cultures. The research uses visual technologies of video and serialised still images in the study of one site, a year 8 coeducational classroom, in an outer suburban Catholic secondary college in Melbourne, Victoria. The school, referred to in the research by the pseudonym of Victoria Park, is the site for showing how threads drawn from the visuality of classrooms splice the gathering of moments, capturing shifts, flows and liminal moments in the everyday classroom. The application of video and serial images in this ethnographic study of the classroom behaviours of boys assisted the researcher to see beyond metanarratives to smaller discursive fields where rhizomatic and zeumagmatic exchanges between individuals and assembled cultures take place as shifting, becoming, transiting bodies (Grosz, 2004). The research rejected deceptive simplifications and totalising perspectives that can be drawn from narrative lineairities of traditional video, preferring stances that recognise multiple, unstable representations (Connell, 2002, p. 89). This assisted the study to contest both objective epistemological models and the use of conceptions of knowledge that reject compounding accounts of reality to instead view cultures as “happenings” and multitudes of differential relations (Edgar & Sedgwick, 1999; Semetsky, 2003). Assemblages and representations observed in this study may not be reproduced in other settings, but lessons can be drawn from an understanding of representations, relationships and interplays between boys, their teachers and their peers.

The chapter contributes to the debate about data and evidence in education by offering insights about rhizomatic connections between stances, instruments and observation of cultural assemblages, in interplay with the researcher, to analyse classroom interactions. It shows that alongside listening, talking and observing, visual media adds prosperity to the gathering of displays and assemblages in an educational setting. The chapter argues that the interplay between postmodern philosophy and visual media offers scope for a wider analysis and presentation of information about learning.

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