

“I Love Drawing a Hundred Million Years!” Drawing Self-efficacy and the Messages Kindergarten Children Give and Receive

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Abstract

A child's drawing self-efficacy, that is their belief in their ability to draw well, affects their present and future art action and choices. Bandura's (1986) self-efficacy theory and the sources of self-efficacy information (performance attainment, vicarious experience, verbal persuasion and physiological state) provided a framework for an investigation into the relationship between messages and drawing self-efficacy. Questionnaires, interviews and observations were used with 136 children, aged four to nine. This paper reports the kindergarten children's drawing self-efficacy levels and the themes generated by interviews and observations.

Introduction

Background to the study

My research in the field of children's drawing arose out of an interest in young children's drawing experiences and a concern for those who developed a reluctance to draw. Research and literature tends to suggest a decline in drawing confidence during childhood. Gardner (1982), for example, suggested that there is a “golden period during the first few years of life in which every child can be regarded, in a meaningful way, as a young artist” (p. 216), yet adolescents often showed a reluctance to draw. Reluctance to draw amongst younger children has also been noted. For example, Freeman (1997) found that five-year-old children were reluctant to create innovative drawings. Cox (1991) and Kellogg (1979) found that around ages seven and eight children begin to express greater dissatisfaction with their drawings.

In my experience, in an attempt to account for children's art experiences, adults have reinterpreted childhood experiences through adult lenses. What has developed is a commonsense view that declining art confidence stems from negative school art experiences and messages. Academic views also support this

supposition. For example, Kellogg (1979) attributed the decline in drawings amongst eight-year-old children to inappropriate adult pressure, lack of positive messages about artistic ability and poor teaching practices. Although Kellogg contributed a great deal to understanding children's drawing development her conclusions appeared to be based on analyses of drawings, rather than direct interaction with young artists. The challenge then is to scrutinise these commonsense views by engaging in research with children that acknowledges children's experiences and the discourses in which they engage.

Self-Efficacy theory

A commonsense view, that links artistic confidence to messages and experiences, suggests that a child's self-belief affects their present and future art actions. Educators have recognised the relationship between the motivation to achieve and self-belief in academic capabilities, but this relationship has been difficult to measure in a scientifically valid way (Zimmerman, 2000). However, in 1977 Albert Bandura proposed a theory of social learning that explored the origins, mediating mechanisms and effects of personal efficacy. Bandura's later ideas on social cognition (1986) and self-efficacy (1995, 1997) further opened the way for measuring self-efficacy beliefs in various domains of functioning.

Self-efficacy, which is defined by Bandura (1986) as "people's judgements of their capabilities to organise and execute sources of action required to attain designated types of performances" (p. 139), helps to explain why individuals act differently in similar situations. Perceived self-efficacy is partly independent of underlying skills and those with high self-efficacy will choose activities they believe will be successful, and will persist in difficult situations (Bandura, 1977; Pajares, 1996). Therefore, preference can be seen as an indicator of self-efficacy.

Self-efficacy is informed by four sources of information: performance attainment, vicarious experience, verbal persuasion and physiological state (Bandura, 1986).

- Performance attainment, based on the actual mastery of tasks and previous experiences, is highly influential on self-efficacy. High success leads to the belief that difficulties are a result of faulty strategies, whereas low success leads to a belief that setbacks are the result of inability (Bandura, 1986).
- Vicarious experience is based on seeing others succeed or fail. Successful modelling can raise self-efficacy and weaken the impact of past failure. The extent to which a person will change their perceived efficacy depends on their similarity to the model (Bandura, 1986) and on seeing a variety of models achieve in difficulty situations by determined effort.
- Verbal persuasion refers to feedback while learning new skills and performing particular tasks. Verbal persuasion, from someone who is credible and understands the task, can be effective if set within realistic bounds (Bandura, 1986). Positive persuasion has the greatest impact on those with high self-efficacy while negative persuasion has the greatest impact on those with low

self-efficacy (Bandura, 1986). Therefore, self-efficacy levels will influence the interpretation of comments and messages about competency, and vice versa.

- The physiological state of a person, such as fear of failure, will lead them to believe or doubt their ability to succeed. Mood may also influence efficacy and performance and Bower (1981, 1983, cited in Bandura, 1986) claimed people learn faster when in a mood congruent with the activity, and will recall things better when in that same mood. Therefore, the nature of social interactions can influence self-efficacy and performance.

The role of messages in self-efficacy beliefs

Kindergarten art activity can be seen as forms of exploratory, creative play (Brandon, 2000). It is around this age that children develop intersubjectivity and create a common ground for communication (Berk & Winsler, 1990). Language shared with others moves the child from a largely experientially based system to a potentially language-based system in which they must integrate individually constructed knowledge with the culturally established systems (Nelson, 1996). Children's artworks and understandings about art are also influenced by cultural factors (Cox, 1992; Wilson & Wilson, 1982) and the values placed on art (Freedman, 1997; Hamblen, 1984).

As noted in earlier discussion, Bandura's self-efficacy theory recognises four sources of self-efficacy information, which are sources of messages for children. Verbal persuasion is a key source of messages but messages can also be communicated through body language, facial expressions, laughter, grunts, touch, and tone of voice. Likewise social acceptance, inclusion or isolation are part of the complex message systems that affect children's physiological state, actions and self-efficacy. As children interact with one another and teachers, the witnessing of other's messages and drawing experiences could provide vicarious experience and influence self-efficacy and task response.

Drawing Self-Efficacy Research

Methodology

Self-efficacy is concerned with judgements of personal capabilities in a specific domain and Bandura (1986) suggested that accurate self-efficacy results were best obtained when there is a high level of specificity. While Bandura did not discuss drawing capabilities, self-efficacy theory can be applied to specific domains. My visual arts research focused on drawing, and children's drawing self-efficacy (Richards, 2003). In the context of my research I define drawing to include any deliberate mark making by a child and I take that mark making to include mixed media. While in my experience adults debate what constitutes "art", the children easily entered into discussion about their art that showed that they often saw mixed media and drawing as mark making and in practice used both. Therefore, while the self-efficacy questionnaire focused on drawing for specificity, the

observations in my study focused on the variety of art forms that the children engaged in.

In the absence of past research on drawing self-efficacy I used Bandura's self-efficacy theory (1986, 1995, 1997) as a theoretical framework for investigating drawing self-efficacy and the messages children gave and received (Richards, 2003). The research, which involved 136 four to nine-year-old children in questionnaires, interviews and observations, generated a great deal of data. Reporting on and discussing the full findings is beyond the scope of this article. This paper reports only on the kindergarten children's drawing self-efficacy and themes generated by interviews and observations.

My research into drawing self-efficacy called for fieldwork that acknowledged the social setting in which children experience drawing and develop self-beliefs. Although limited by time constraints, this research was informed by ethnographic principles. The purpose of ethnographic research is to provide a "rich, detailed verbal description of how members of a culture perceive the culture" (Crowl, 1996, p. 11) and in an educational setting the kindergarten can be conceptualised as a cultural entity. The ethnographic research cycle, as outlined by Burns (1996) provided the basis for my research model.

One starts by making broad descriptive observations, trying to get an overview of the social situation and what goes on there. Then, after recording and analysing the initial data, research narrows and begins to make focussed observations. Finally, after more analysis and repeated observations in the field, investigations narrow still further to make selective observations. (p.304)

To make the links between drawing self-efficacy and messages my research method also needed to identify children's drawing self-efficacy. Therefore, both quantitative and qualitative methods were called for.

Research Methods

The use of both quantitative and qualitative methods is advocated by Pajares (1996) in establishing how efficacy beliefs develop and together these methods provide "a binocular vision with which to deepen our understanding" (Reichardt & Rallis, 1994, p. 11). The use of qualitative and quantitative methods also provided triangulation (Cohen & Manion, 1989) and the descriptive observations contributed towards descriptive validity (Maxwell, 1992). In my research the quantitative questionnaire data identified drawing self-efficacy levels and the qualitative data provided an insight into the experiences of children and sources of self-efficacy information. These sources of information, in the context of this research, were regarded as the messages that children gave and received.

Questionnaire, interviews and observations were undertaken over a three-month period. In the absence of a previously developed questionnaire a 36-item questionnaire was developed (see Richards, 2003). Observations were undertaken

over a 40-60 minute period as children engaged in teacher facilitated or independent art activity. Observational records took the immediate form of notes, diagrams and abbreviations that were then expanded into descriptive records.

Participants

To provide anonymity all names were changed. Campbell Kindergarten was in a moderate sized New Zealand city and the 15 girls and 30 boys who attended the morning session were invited to participate. The children, aged between four - years-two-months and five-years-old, were taught and supervised by two full-time teachers, a part-time teacher and, at times, adult helpers or a relieving teacher. Research approval was gained from the Massey University Human Ethics Committee and issues such as access to participants, informed consent, rights to decline, and issues of confidentiality and anonymity were taken into account. The staff members, and thirty-three kindergarten children, backed by parental consent, consented to participate. Twenty-one children responded to the questionnaire, six children were interviewed and 28 children were observed.

Results and Discussion

These results relate to the kindergarten findings, which are part of a larger study (see Richards, 2003). Where pertinent to the discussion a name, age expressed as a decimal, self-efficacy level and score will identify the child. For example Danielle (4.9 QH 109) indicates that Danielle is aged 4.9 years old, and has quite high drawing self-efficacy with a questionnaire score of 109. Children who did not respond to the questionnaire are coded DNR.

Quantitative results: Drawing self-efficacy levels

The 36 items of the questionnaire were read aloud, which generally prompted a "yes" or "no" answer, and then a second question gauged the degree of the response. Responses were coded a number from 1 to 4. Scores between 36 and 71 represented low drawing self-efficacy, 72-89 represented quite low, 90-107 represented moderate, 108-125 represented quite high and 126 -144 represented high drawing self-efficacy.

The 11 boys and 10 girls who responded to the questionnaire scored between 91 and 129. Nine children had moderate drawing self-efficacy, ten had quite high and two children had high drawing self-efficacy. An analysis of variance (ANOVA) revealed no significant gender differences for these children. As preference is an indicator of self-efficacy (Bandura, 1986), and 18 boys and five girls chose not to participate in research or art activities, it is difficult to gauge the drawing self-efficacy levels and gender differences for the whole group. However, the qualitative data did suggest some differences in the messages children gave and received during art activity, in terms of gender and self-efficacy levels.

Qualitative Results

In considering the relationship between drawing self-efficacy and messages it is useful to analyse qualitative data in terms of Bandura's (1986) four sources of self-efficacy information, as previously described.

Performance attainment

Participation in art activities, and the links made between drawing, scribbling and writing, provided sources of information about attainment. While experience is the most powerful source of self-efficacy information (Bandura, 1986), only 60 percent of the girls and 40 percent of the boys at Campbell Kindergarten were observed involved in art activities. Contrary to the commonsense view, that sees all young children as drawing with confidence, some children did not draw during the research period. Furthermore, observations suggested that girls drew more often than boys and for longer periods of time. The girls in this study chose predominantly indoor activities such as drawing, dressing up and reading books while the boys were more likely to engage in outside physical games. This is in keeping with research that suggests that children at this age are aware of gender appropriate behaviour (Elkind & Weiner, 1978), and choice of activity often reflects masculine and feminine stereotypes (Elkind, 1994; MacNaughton, 2000).

The kindergarten children generally chose their own drawing topics and drew at their own pace. While teachers told me that they consciously praised both representational and non-representational drawings, children regarded non-representational drawings as scribbles, and were critical of them. For example Owen (4.9 QH 124) commented:

I keep my pictures but I don't like the ones that are like scribbles and stuff – throw them in the rubbish.

Children also criticised others for scribbling, as this fieldwork record illustrates:

Danielle (4.9 QH 109) makes quick random marks on her picture. This attracts the attention of Beatrice (4.3 QH 119) who says quite loudly "Don't scribble!" Danielle replies that it is meant to be like that. Although her reply is defiant she stops the mark making and goes on to another part of the drawing.

Although scribbling is a stage in drawing, comments such as these suggest that some children saw scribbling as wrong, and were concerned if their drawings were seen as scribbles. Freeman (1997) showed in her research that young children do care about gaining drawing recognition from others and observations at Campbell Kindergarten showed that the 13 children with either high or quite high drawing self-efficacy were all able to draw representational images. Some of these children also commented on knowing how to draw.

While scribbling attracted negative comments, drawing numbers and letters attracted positive attention from children and adults. Teachers also commented about writing competencies when the children drew, and linked this to school

readiness. While adults may regard writing and drawing as distinct skills, to some children at Campbell Kindergarten there was little distinction. The interview with Jane (4.6 M 93) illustrates this.

After we discuss her questionnaire responses Jane says: I do really like my pictures now but I don't like drawing much because it's a bit hard for me to do.

Rosemary: What is really hard?

J: Reading books.

R: And what things are hard to draw?

J: Writing.

R: You said last time that you had trouble drawing people.

J: I can draw them now—I was just joking.

R: What do you like drawing?

J: I like drawing writing—and I copy Mum's writing ... and I draw numbers ... and flowers and butterflies.

Jane saw the mark making used to represent flowers, butterflies, numbers and writing as forms of drawing. She related the difficulty she had in drawing to the difficulty she had reading books, and found writing "hard to draw". By way of contrast, while Jane had the second lowest drawing self-efficacy in the group, three children with higher drawing self-efficacy commented on their ability to write well.

Children in this study were not observed asking others to draw for them but they did ask others to write, giving and receiving messages about the right and wrong ways to write. Keeping in mind that some children regarded writing as a form of drawing, then children received messages about the right and wrong ways to draw letters and numbers. Therefore, while drawing experience would be the main source of performance attainment information, the ability to accurately form letters and numbers may also inform drawing self-efficacy.

Vicarious experience

The teachers at Campbell Kindergarten did not usually model art activities and children provided each other with the greatest source of vicarious experience. Questionnaire responses showed that, in general, children at this age believed they could draw well if others could. Only two children, who shared the lowest drawing self-efficacy score, showed low or quite low responses to two of the three questions about vicarious experience.

Vicarious experience is an important source of self-efficacy information (Bandura, 1986) and the boys in particular appeared happy to draw similar topics. Dinosaurs were a popular topic and the kindergarten had dinosaur toys, posters and books

but the children did not appear to use these as a source of motivation or visual information.

Vicarious experience and verbal comments from peers provided positive and negative feedback. The following fieldwork record shows how a group of boys motivated and supported each other when drawing a topic of shared interest. However, Quinn was criticised by his peers for one aspect of his drawing. While for some the exchange of comments and competitive statements was fun, for Quinn the critical attention appeared to make this drawing experience unpleasant.

Quinn (4.4 DNR) and Vincent (4.4 M 103) enter into a very animated conversation with each other about how to draw two-claw dinosaurs. Callum (4.9 H 129), who often draws dinosaurs, directs his attention to them and says, "I'm drawing a stegosaurus."

"Me too!" chorus in Quinn and Vincent. The boys then talk about the Dinosaur movie.

Mack (4.9 DNR) says "I've seen the two-claw on the movie."

"Same!" choruses the other boys.

One boy disputes that Quinn has actually seen the movie, "I didn't see you there...so there."

Vincent says "I did" and Quinn and Vincent turn to each other in friendship.

The boys continue to challenge each other as they draw. Quinn says "Poos" as he struggles with a drawing and this is greeted with laughter. The boys continue to draw, interact and entertain each other with quite crude 'toilet talk', inviting each other to better the remarks. A disagreement develops at one stage and one boy threatens another with "I'll tell my big brother on you."

"Anyway, he doesn't know where I live."

"So...I hate you guys."

All the boys, except Callum, interact in an aggressive manner but seem animated and mostly comfortable with the interactions. Quinn however, looks unhappy when Vincent tells him it looks like he has drawn a 'willie' on his dinosaur. The boys laugh at Quinn and he tries to rub out the offending mark with a rag. He then throws the drawing in the rubbish.

The girls were less likely to draw the same topic, and Gillian (4.5 QH 119) commented that she was good at drawing, but those that copied were not. Therefore, although copying was one way to expand upon vicarious experiences, some children were beginning to develop values that discouraged this practice.

Verbal persuasion

Teachers' comments tended to focus on appropriate behaviour and processes rather than on the elements of the artworks. Children had independent access to art materials and teachers did not usually interact with the children except to monitor equipment and respond to requests. Lewis (1998/99) also observed this set-up-and-step-back child-centred approach, when investigating visual art education in early childhood centres. However on some occasions the teachers at Campbell Kindergarten did set up and assist with art activities. For example Lynda, one of the teachers, set up a table with dye and black paint, and began the art activity with a demonstration. Demonstrations were not a common practice and Lynda defended her approach, saying she strongly believed in modelling and directing children without stifling them. Lynda managed the activity but did not comment on the content of the artwork, and her defence of her modelling approach showed a tension between a child-centred teaching approach and cognitive teaching principles.

While Campbell Kindergarten teachers did not specifically comment on children's artworks, the children interpreted the teachers' messages as positive. For example Callum (4.9 H 129) said, "Everyone is good. No-one has trouble with their drawings because the teacher loves all their drawings". Observations suggested that teachers' verbal comments influenced children choices, and appeared to be more influential on girls than boys. For example, a teacher commented on how well two girls were stapling and almost immediately two other girls stopped drawing and also stapled.

Art activities that involved teachers were popular with boys and girl, but girls were more likely to verbally interact with the teacher. The presence of a teacher decreased the level of challenging verbal exchanges between boys, encouraged boys and girls to participate in activities at the same time, and increased the number of children at the activity. For example, participation levels were notably high at an outside monoprinting activity and an inside mask making activity managed by teachers. Both activities were popular with the boys and several features may have facilitated participation. Firstly, the activities involved interaction with an adult. Secondly, one activity was outside on the grass, which was an area favoured by the boys and in close proximity to other activities and friends. Thirdly, the mask activity was based on dinosaurs, a theme popular with the boys.

While teachers provided some verbal persuasion, children provided the greatest source of verbal exchanges while drawing. Girls at Campbell Kindergarten often worked in twos and threes, assisting each other, and offering praise and verbal support. On the other hand comments between boys, in the absence of a teacher, often involved a degree of competitiveness, provocation and defining of loyalties. These types of comments were possibly not unique to art based interactions as children at this age are defining their social roles and developing common understandings (Docket & Perry, 1996). Observations also suggested that art activities often provided an extension of boys' play, such as making a weapon or

stamping a toy across a wet painting, while girls tended to focus on creating art outcomes that they appeared to value as artworks.

In general the children participated in art making activities in same-sex groups. On several occasions girls would leave the art space when boys arrived, or girls would come to a table only after boys had left. However, boys did not tend to leave if girls arrived. The reason for the movement may have been because of the provocative verbal exchanges between most boys, which contrasted with the interactions favoured by most girls. Three boys, who had the highest self-efficacy levels, were the exception to this rule in that they often drew quietly with the girls. Children were aware of the differences between working with boys or girls, as these interviews illustrate:

Owen (4.9 QH 124)

Owen describes how three boys ripped the calendar picture.

Rosemary: Do you draw at the table with these boys?

O: Yes.

R: So, do you like working with these boys?

O: No, because sometimes they are mean to me.

R: Who do you like to draw with best?

O: Anna, because she says good things.

R: Do the boys say good things too?

O: No.

Vincent (4.4 M 103)

Rosemary: Who do you like doing drawing with?

Vincent: My friends. [He names several boys he has just told me were "mean" to him]

R: Do you like drawing with the girls too?

V: Yes...with Catherine and Bronny (two of the teachers).

R: Do you like drawing with Mary and [I name several girls who often draw]

V: Yip.

R: (Discussion, one week later). What do the children say to each other when they draw together?

V: Girls don't get angry—they say "I like your work." Boys say horrible things.

R: Who do you like drawing with?

V: The boys.

Vincent said that “boys say horrible things” but he preferred to work with them. On the other hand Owen, who had quite high drawing self-efficacy, actively sought positive verbal interaction. At times some boys were disrupted during art activities or discouraged from doing art activities by their peers. For example, Vincent’s decision to draw created a tension between him and his friends. Quinn came to the table on three occasions to talk to Vincent, to play with toys at the art table and to ask Vincent to settle a dispute.

Bandura’s (1986) self-efficacy theory also helps to explain why people react differently in similar situations or messages. Mike and Vincent were asked how they felt about a similar incident.

Vincent (4.4 M 103)

Rosemary: [We discussed the observation in which Mike said Vincent’s artwork was ‘poos’.] How did you feel when Mike said that?

Vincent: I said his one was poos too

R: Did Mike mean it when he said that?

V: No he was just saying that. I took my drawing home.

Mike (4.8 M 91)

Rosemary: Last week when we talked you said that your friends sometimes say bad things about your drawings. What sort of things do they say?

Mike: Naughty words.

R: Why?

M: Don’t know.

R: What do you do?

M: They say “Yuck” – I cry – and I tell the teacher.

R: What do you do with your drawing when the children say “Yuck.”

M: I throw it away.

R: Is it true when they say “Yuck”?

M: No. But Vincent said, “Cool.”

While both boys felt the other really “didn’t mean it” their reactions were different. Mike cried, told the teacher and threw away his drawing. Vincent, on the other hand, who had higher drawing self-efficacy than Mike, took his artwork

home, supporting the belief that those with higher self-efficacy are more resilient to negative messages (Bandura, 1986).

Physiological state

Mike, who had the lowest drawing self-efficacy of the children who responded to the questionnaire, had a negative emotional response to other children's negative comments. On the other hand Callum and Samuel, who had high drawing self-efficacy experienced positive emotional responses as the following interviews illustrate:

Callum (4.9 H 129)

Callum: I love drawing a hundred million years...I feel great!

R: What do your friends say about your drawings?

C: They don't look at them – they would say it was cool, wouldn't they!

Samuel (4.8 H 127)

Rosemary: You said you thought you were the best at drawing and art at kindergarten. Why do you think that?

Samuel: My painting and drawing and cutting is better, because Jake just does scribbles but I do pictures...of houses, children, palm trees, grass...

I used to do scribbles when I was a baby.

Everyone at kindy says "cool!"

Sometimes organisational issues, such as using the right paper, impacted on drawing experiences and emotional responses, as the following excerpt shows:

Mike (4.8 M 9) joins the table where children are drawing farewell cards for two classmates. He starts to draw a go-cart on a piece of paper. He is quite attentive to his task, drawing for five minutes. Occasionally he looks up at his friends, who are playing with the blocks nearby. When he finishes his drawing he gives it to David, but discovers that he has used a piece of paper meant for Joe, another child who is leaving. The teacher therefore, puts his drawing in the pile meant for Joe, and not David.

Mike looks unhappy about his drawing for David being given to Joe, but he picks up another piece of paper with David's name on it. Mike frowns, and looking in the direction of his just finished drawing says, "But I can't copy it". The teacher suggests he could make another drawing. Mike looks around the art table with an expression of bewilderment, and then leaves the table to go and play with the blocks. His body language and reactions suggests that he is unhappy that his drawing has gone to the wrong person, and that he feels unable to draw another.

Mike's reactions to his difficulties were consistent with self-efficacy theory that suggests that those with high self-efficacy will persist in difficult situations, while those with lower self-efficacy will not (Bandura, 1977; Pajares, 1996). A person's emotional state impacts on their perceptions of an activity as successful or satisfying (Bandura, 1986). Therefore, it was also noteworthy that on four occasions boys were directed to art activities as a form of control. While these tactics proved successful, the underlying message is one that associates art with punishment. Artworks were also associated with positive acts such as children giving drawings as gifts or drawing pictures in a farewell card. In these cases of reward and punishment the artworks were the rewards while the art activities were the punishments. For the most part however, the act of making artworks did appear to be a pleasurable one.

Implications for Educational Practice

An analysis of the findings may help educators to understand the educational implications and possible courses of action teachers can take to enrich children's art experiences. The four main sources of self-efficacy information; performance attainment, verbal persuasion, vicarious experience and physiological state (Bandura, 1986), provide a framework with which to consider key implications.

Performance attainment

Actual experience is the most powerful source of self-efficacy information (Bandura, 1986). Yet this research suggests that some kindergarten children did not choose to be involved in art activities and that girls preferred art to boys. Therefore, despite the commonsense view that assumes all children are actively drawing with confidence before starting school, these findings suggest otherwise, especially for boys. Also, when boys did engage in art activities it tended to be for shorter periods of time than the girls.

The children at Campbell Kindergarten who had high drawing self-efficacy were confident in their ability to draw and write well. While the link between drawing and writing has yet to be fully researched we, as educators, need to be conscious of the holistic link some children make between drawing and writing. If indeed the cognitive processes that facilitate writing development are closely linked to drawing development (and as both are forms of communicating through line-based symbols this would be a reasonable assumption), then we need to consider the vital role of drawing in children's educational experiences.

Preference is an indicator of self-efficacy (Bandura, 1986). Therefore, children who chose not to draw were more likely to believe that they could not draw well, and were also less likely to develop drawing competence through experience. However, this and other research (for example, Freeman, 1997) showed that children do care about what others think of their drawings and how recognisable their images are. As teachers we need to consider several aspects in our visual arts teaching and learning environment. Firstly, we must find ways to make drawing and art activities attractive for all children, especially for boys. Secondly, we need to

consider our roles as teachers in providing appropriate guidance and messages during art activity. Thirdly, we need to be aware of the way in which children influence other children's drawing experiences. Lastly, we need to promote social interactions that support and encourage drawing activity and make it an emotionally rewarding experience.

Vicarious experience

Although teachers at Campbell Kindergarten did not consciously influence the children's art activities, their presence encouraged both boys and girls to participate. As noted, at times some boys were directed to art activities to settle undesirable behaviour. Other children watching this practice may be vicariously influenced, and see art activity as a 'punishment'.

Children often drew in the presence of others, and the success and frustration of others provided sources of vicarious experience. Questionnaire responses showed that the children in this group generally showed positive beliefs in their ability to draw well if others did, except for two children who had the lowest drawing self-efficacy. For these children, modelling by a skilled peer or teacher may have helped them understand the nature of the drawing task. However very little teacher modelling was observed in the kindergarten, and this may have reflected a concern that adult modelling stifles creativity (Brownlee, 1991) or limits opportunity to create and induces feelings of failure (McConnell, 2000). Furthermore children were not actively encouraged to help each other. In fact one child articulated a belief that copying was not good drawing. As educators we need to examine the tension between originality and creativity on one hand, and learning from skilled persons and visual images on the other. The practice of inquiry into visual images and exploring and imitating the artworks of other people and cultures is basic to the history of art. However we often expect young children to develop creative and innovative ideas without exploring the artworks of others. In an educational setting the artworks most accessible to children are those of other children, book illustrations, and the visual images provided by film, television and computer.

Verbal persuasion

The teachers' comments tended to focus on appropriate behaviour rather than on aspects of art. While the teachers were positive towards all children, the girls were more likely to verbally interact with the teachers. As children with high drawing self-efficacy had representational drawing skills, other children who expressed an interest in developing their representational skills may have benefited from guided teaching. However, while the teachers valued art, the dominant practice of a child-centred art curriculum (Gunn, 2000; Lewis, 1998/99) meant that teachers did not engage in art discussion with the children. However, children did develop their own critical voice, identifying scribbling as bad, and writing and representational drawings as good. Furthermore, differing patterns of verbal exchanges were observed for boys and girls. In general girls tended to seek associations that supported their activities and provided positive verbal

interactions, while many boys engaged in challenging and provocative physical and verbal interactions.

Physiological state

Children with higher drawing self-efficacy showed more positive emotional responses to art than those with lower self-efficacy. As noted, girls tended to develop supportive learning environments while many boys engaged in challenging and provocative interactions. While the boys appeared to enjoy these interactions, discussions revealed that criticism could lead to tears or anger. So, while concern is expressed about the messages children may receive at school, some children experienced negative emotional responses to drawing at a kindergarten level.

Conclusion

Children's art experiences may not be key topics of debate at a policy making level in education, however most teachers and children will admit that art making experiences are important in the development of self-beliefs. Discourses about the apparent decline in drawing confidence, and the reason for this, are often presented as self-evident truths. Stories and poems have been shared in public forums as though they represent actual children's experiences, becoming what I would refer to as educational myths. For example, printed in an educational magazine for parents, R.E.A.L., (as part of an article on creativity) is the story of the little girl who did lovely creative drawings at pre-school but was taught how to draw red flowers with green stems at school. The result was that she was then unable to draw anything else (see Macleod, 1999). The poem "School made him square and brown inside" was printed in *National Education* (1972), a free publication to all schools and kindergartens. While these stories reflect our concern for children's artistic experience they also limit our vision. As long as we prescribe to a commonsense view, without exploring its validity, or without considering the child's actual experiences and views, then we cannot become part of the solution. Therefore, it is important that we, as educators, start to own the problem and work with children to create a culture that values and promotes children's art experience. As a researcher I have but scratched the surface and I hope in doing so we can begin to look more closely and create new ways of interacting with children so that every child can be, as Gardner (1982) suggests, regarded as an artist in a meaningful way.

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