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Developing Children's Critical Thinking through Creative Arts Exposure: An Application of Ennis's Super-streamlined Critical Thinking Framework

Caroline Nilson, Murdoch University, Australia
Catherine Fetherston, Murdoch University, Australia
Anne McMurray, Griffith University, Australia

Abstract: This paper describes how Ennis's (2010) Super-streamlined Concept of Critical Thinking Framework (SSCCTF) has been used to frame an analysis of critical thinking development, in a study of young children who participated in a community creative arts activity. The SSCCTF provided an ideal guide during the research analysis to identify dispositions and abilities displayed by the children and map them across the framework. The aim of the paper is to explain the evidence of critical thinking dispositions and abilities in this cohort of children and interpret its significance in terms of critical thinking development.

Keywords: Critical Thinking Development, Critical Thinking Framework, Critical Thinking Analysis

Introduction

There is widespread acceptance among education scholars that critical thinking skills are one of the most important outcomes of education (Ennis 1962, 1969, 1985, 2001, 2011; Facione 1990; McPeck 1981; Norris 1985; Paul 1984). Although critical thinking theorists differ with regard to their conceptions of critical thinking, they have a common understanding of critical thinking as an active mental process intended to make a decision about something (Bailin, Case, Coombs & Daniels 2010, 2010a). Ennis's work is widely acknowledged as pre-eminent within the scholarship of critical thinking, particularly in relation to teaching and learning. His definition that critical thinking is "focused on deciding what to believe or do" (Ennis 1991, 8) captures the "core of the way the term is used in the critical thinking movement" (Ennis 2011b, 1).

Since his seminal work in 1962, Ennis has refined his conceptualisation of critical thinking to identify a framework of overlapping dispositions and abilities (Ennis 2010, 2011a). The study discussed here investigated the development of critical thinking in a group of children participating in a community arts project, through the analysis of findings according to the dispositions and abilities of Ennis's (2010, 2011a) Super Streamlined Concept of Critical Thinking Framework (SSCCTF). The findings from this study have been published previously (Nilson, Fetherston, and McMurray, 2013) and the aim of this paper is to examine in detail the process of how Ennis's SSCCTF was applied during the analysis. Discussion follows on the relevance of Ennis's framework for this purpose, and describes how all aspects of the framework are evident in the transfer of critical thinking development during the endeavour of the creative arts activity, which was the focus of the study.

Critical and Creative Thinking

The nuances of how the more traditional interpretations of critical thinking differ from creative thinking have been argued dialectically by Richard Paul (1984, 1990, 1993, 2008). This argument calls for logical recognition that they are "inseparable, integrated, and unitary" (Paul

1993, 1; Paul and Elder 2008, 1). Other theorists (Bailin 1987; Grace and Murnen 2009; Lampert 2006; Menssen 1993; Ruggiero 1988) have also suggested that there should be a shift from the “separate parts” emphasis to the perception of the “whole pattern” (Bleedorn 1993, 19). It is beyond the scope of this article to debate the differing interpretations and perceptions of critical and creative thinking. However, when using Ennis’s framework to analyse the study data, the authors adopted the position theorised by Paul and Elder (2008, 28), which suggests “criticality and creativity work hand-in-glove, and are mutually dependent, mutually interacting and mutually influencing each other”. The verbatim quotes used in this article to support the perceived development of critical thinking dispositions and abilities in arts highlight that as “creative thinking enters the critical thinking process, so also critical thinking enters the creative thinking process and at their best are inseparable” (Bleedorn 1993, 18).

Background

The methodology and findings of the study referred to in this article have been reported previously (Nilson et al, 2013). A brief overview of the study is given to provide context for the reader. The study under discussion investigated the impact of a creative endeavour on dispositions and abilities reflective of critical thinking in approximately 150 children, aged between eight and nine years of age. The children were from three schools and one independent art group in southern Western Australia that contributed works of art to a regional art festival in June 2010. At the conclusion of the festival separate interviews were conducted with mothers and teachers of the children to ascertain their first hand observations and self-reported perceptions of the influence of creative arts on the children’s development and expression of critical thinking during the process of creating their art pieces. Still photographs, video footage and letters written by some children formed additional data sources. The findings were then analysed within the context of Ennis’s (2010, 2011a) theoretical framework.

Ennis’s Super Streamlined Concept of Critical Thinking Framework

In writing an article on how he became involved in the critical thinking movement, Ennis (2011, 4) notes that after serving in the Army of Occupation in Japan in 1947, he became convinced that “the world needed a population suffused with wisdom”, which led him to consider the important role of education in developing this wisdom. In the early 1950’s as a high school teacher, Ennis learnt about critical thinking and “realized that the promotion of critical thinking would be very important for personal, vocational, and civic lives, and that the survival of a democratic way of life depended on the critical thinking of the voters” (Ennis 2011, 5). These beliefs have been carried through all of Ennis’s work and are embedded in the SSCCTF. Significant features of the framework are belief and action, which relate to what people should do and what people actually do in their daily lives (Ennis 1991, 1996, 2011, 2011a). The SSCCTF (Ennis 2010, 2011a) conceptualizes critical thinking as the ability to undertake “reasonable reflective thinking that is focused on deciding what to believe or do” (Ennis 1991, 8). Ennis (2011a, 6) suggests that the SSCCTF can serve as an “introductory statement of the goals of a critical thinking program and its assessment”. For this reason, the framework was considered the most appropriate to assist in analysing the teachers’ and mothers’ perceptions and observations regarding how creative arts activities influences the development of critical thinking in a cohort of children between eight and nine years of age. Ennis (2010, 2011a) identifies a framework of overlapping dispositions and abilities and additional auxiliary abilities (Ennis 2011a, 6) that describe the characteristics of an ideal critical thinker. A graphic depiction of the overlapping dispositions and abilities is given in Figure 1.

Figure 1. A graphic model of the SSCCTF
(Designed by C. Nilson to illustrate A Super-Streamlined Conception of Critical Thinking Framework developed by Professor Emeritus Robert H. Ennis 2010. Adapted with the permission of Professor Emeritus Robert. H. Ennis in personal communication, December 2, 2010 and January 13, 2011.)

Table 1 illustrates what Ennis (2011a, 6) describes as ‘auxiliary critical thinking abilities’, based on his contention that incorporating both the dispositions and the abilities is useful in becoming a critical thinker (Ennis, 2011a, 6).

Table 1. Three Auxiliary Abilities of the Ideal Critical Thinker

Auxiliary critical thinking abilities - not constitutive of critical thinking alone, however important because fallacious reasoning keeps us from knowing the truth, and the inability to think critically makes us vulnerable to manipulation by those skilled in the art of rhetoric.	
1.	To engage an appropriate orderly process when considering any situation. For example: a. to engage and follow steps in problem solving b. to check, consider and reflect on one’s own thinking c. to use a checklist for critical thinking in reasonable order
2.	To be sensitive to and care for others in regards to feelings, level of knowledge and degree of education and sophistication. Be concerned about the welfare of others.
3.	To employ appropriate rhetorical strategies in discussion and presentation (orally and in writing). To react suitably to “fallacy” labels.

(Source: Adapted from Ennis, Robert. 2011a. Critical Thinking: Reflection and Perspective - Part II. Inquiry 26 (2): 6.)

Providing a brief summary of his framework, Ennis (2011b, summary and comments) suggests that:

The ideal critical thinker is disposed to try to "get it right," to find the truth if it is to be found, to present a position honestly and clearly, and to grasp a position clearly. The ideal critical thinker has the ability to clarify, to seek and judge well the basis for a view, to infer wisely from the basis, to suppose and integrate imaginatively, and to do these things with sensitivity and skill.

Ennis’s Framework as a Guide to Analysis and Theme Development

The study under discussion (Nilson et al, 2013) was designed using Ennis’s framework to explore whether there was any evidence of the processes involved in critical thinking, as perceived by their mothers and teachers, in our sample population of children as they engaged in their artwork.

Prior to examining how Ennis’s framework was then applied to the analysis of the data collected, the previously published themes and sub-themes, that resulted have been reproduced in Table 2 (Nilson et al, 2013) to provide context for the reader. During the discussion of the application of Ennis’s framework to these themes and sub-themes, verbatim comments substantiating the data are referenced to teachers and mothers by numbers (T1, T2 etc. and M1, M2 etc.).

Table 2. Themes and sub-themes generated from teachers' and mothers' perceptions of children's creative arts experiences.

Themes	Sub-themes
1. Environmental factors influencing children's creativity	<ul style="list-style-type: none"> ➤ Constraining factors limiting the creative arts experience in the home. ➤ Limited time allocation for creative arts in school programs. ➤ The lack of creative arts expert instruction across the span of the school curriculum. ➤ Funding restrictions in the educational environment.
2. Processes in mobilising children's creativity	<ul style="list-style-type: none"> ➤ Being given "permission" by teachers. ➤ Factors mobilising children's creativity. ➤ Providing children with creative arts opportunities outside of the limited school programs. ➤ Strategies in working with children to excite their imagination.
3. Children growing through the experience of creative arts	<ul style="list-style-type: none"> ➤ Children becoming aware of themselves through creativity. ➤ Children extending their awareness to others and the environment around them.
4. Children developing confidence	<ul style="list-style-type: none"> ➤ Connecting the creative process to other subjects. ➤ Children confidently talking about the construction of their work and defending their choices. ➤ Visible indicators of problem solving in the development of their work. ➤ Persevering with the task to obtain the desired results and effects.
5. Children's creativity contributing to community vibrancy	<ul style="list-style-type: none"> ➤ Taking pride in the contribution they have to offer to a community event. ➤ Feeling a sense of belonging and connection to the community through art.

(Source: Nilson, C., C. Fetherston, and A. McMurray. 2013. Teachers' and Mothers' Perceptions of Using Creative Art to Develop Children's Potential for Critical Thinking. *International Journal of Arts Education* 7 (1): 3.)

Cues and Sensitivities for Critical Thinking Development are Reliant on Engaging Environments

The first theme that emerged from the analysis described the importance of environment as the context within which children could develop critical thinking dispositions and abilities.

When a person possesses the disposition and or ability for critical thinking development, and is able to recognise when they need to use their dispositions and abilities, they then respond and try to exercise them (Ennis, 1996). However, the disposition and ability for critical thinking development may be '*hidden*', and could prevent a person from the exposure that would help them develop a cue or sensitivity to situations that require their engagement (Ennis, 1996). Therefore, the context is important and the development of critical thinking dispositions and abilities relies on environments that urge and encourage children to think reflectively, to seek good reasons for their views, and to seek alternate conclusions and explanations to solve problems and make decisions (Ennis 2011c, fundamental strategies). The development of critical thinking is related to the experience of everyday life and is expressed in dispositions directly influenced by home, school, gender roles, society, culture and tradition (Ennis, 2011a, 13). To this end, just as stimulating environments can enhance critical thinking, restrictive and claustrophobic environments can inhibit critical thinking. Both teachers and mothers highlighted

the importance of the environment when they were asked to discuss how the creative arts activity might stimulate the children's imagination.

Both groups of participants were convinced that the context had a major influence on children's creativity, particularly in relation to the dispositions and abilities related to clarification. They reported concerns about the environment creating a restriction on their child's creative development. Teachers viewed restrictions to participating in creative arts primarily from the perspective of the home environment, whilst conversely; mothers believed restrictions were related to the lack of arts exposure in schools and the limited time devoted to it in the current Australian education curriculum.

Social and contextual changes also played a role in providing the appropriate environment for critical thinking development. The teachers reported a negative change in children's behaviour towards engagement and learning attitudes compared to children in past generations, commenting that the children are now more passive in their learning.

"They are passive that's for sure...you know...as you say, you start off with them...they should be enthusiastic right from the start...but they are passive...they just sit there, you have to draw it out...it's so hard" (T1).

The teachers linked these restrictions on creativity to home experiences. One teacher, who was engaged in the delivery of creative arts in the private sector, where extra-curricular arts programs are offered, described many children's home situations as stifling and restrictive in terms of creative experiences: *"a lot of kids say that they are not allowed to do art at home because it's too messy...so they come to me"* (T4).

Some teachers considered parental pressures and expectations of high achievement as also being constraining factors to the engagement of creativity and free flowing imaginative expression. The teachers' perception that children were reluctant to freely express themselves was related to the children's fear of parental ridicule and the fear of being wrong or getting into trouble.

"I have a couple of children who only paint for their parents...umm...not there for their parents...like they want to come, but they paint for their parents if that makes sense and if they don't think that it will meet up to their parents standards when they arrive they'll throw it in the bin" (T4).

On the other hand, mothers perceived that curriculum and time restraints on creative arts activities reduced the quality of children's experiences, consequently restricting full engagement in thoughtful and reflective practices. Some mothers recognised the arts in the curriculum as being just *'fillers'* to the academic subjects and that the product of the art work appeared to be more important than the process.

"There is no time (in the school day) to pursue the artistic things sometimes...allow the children to have a free for all approach...the teachers tell them what to do...that happens in teaching...when you have thirty two children in the class they have to have direction...time limits...hands on you'd feel like you'd need six or eight adults to be there" (M7).

A *'product'* approach was explained as a major concern as the mothers proposed that the children bypassed the artistic process, only to produce a result that pleased someone else, suggesting that the children would often *'shut down'* to protect their creative integrity, so that they could conform to specific ideas in restrictive thinking environments.

“They are taught from an early age...they have portfolios that they have to take home...the teacher keeps saying how important it is that they must look fantastic...I think the children lose a bit of their own interpretation...the teacher says “it’s going into your portfolio, it’s got to look good”...their own interpretation is lost” (M4).

The second theme described the processes of the children ‘letting go’ of their creative inhibition and mobilising their creative and critical thinking skills, once they confirmed that the environment was encouraging, fostering and supportive of free imaginative expression.

Critical Thinkers Develop Clarification Skills, Rhetorical Strategies and Problem Solving Abilities.

Clarification and forming the basis for a decision is required for the first five elements of the SSCCTF (Figure 1), which requires the identification of the issue, question or conclusion. By asking clarifying questions to gain an understanding of an issue, the person is willing to be informed and is seeking alternatives. By analysing the argument and identifying his/her unstated assumptions the critical thinker is then able to define terms, judge definitions and deal with equivocation. Ennis (1962) suggests that there are three analytically distinguishable dimensions to the concept of critical thinking: a logical dimension, a critical dimension and a pragmatic dimension. The first five dispositions and abilities (Figure 1) involve seeking clarification of the ‘meaning’ and they relate to the three dimensions in the following ways:

1. The logical dimension covers the ability of being able to judge alleged relationships between meanings.
2. The critical dimension covers having knowledge of the criteria to enable judgment of the relationships.
3. The pragmatic dimension covers the impression of whether the background meanings are good enough, based on the background purpose of making a judgment.

Ennis (1962, 85) simplifies this process further by stating: “knowing the meaning of a statement involves knowing the implications of the statement”.

Ennis (2011, 6) suggests that critical thinkers care to do the best work possible and that this is a concept that relates to “getting it right”. To get it right, also requires the mobilization of interrelated clarification dispositions that seek alternatives (curiosity; flexibility); that seek to be well informed (insight; self-feeling) and that seek to endorse a position that is justified by the available information (redefinition; sensitivity to problems) (Ennis 1991, 1996, 2001, 2010). A checklist exists for “reaching a decision about what to believe or do”, which is remembered by the acronym FRISCO (Ennis 1991, 20):

- F for focus: Identify the focus or central concern.
- R for reason: Identify and judge the acceptability of the reasons.
- I for inference: Judge the inference quality, assuming the reasons to be acceptable.
- S for situation: Pay close attention to the situation.
- C for clarity: Check to be sure that the language is clear.
- O for overview: Step back and look at it all as a whole.

Dispositions and auxiliary critical thinking abilities (Table 1) observed in the children while being engaged in the creative arts activity included seeking clarification, problem solving and employing appropriate rhetorical strategies in discussion, development and presentation of their art work.

“They wanted bullying to be dead...so I said “that’s a good idea”...so the rest of the class said how about “bullying be dead”...they kept changing the words around... “make bullying dead?”...I then said “is there a way of making it deader than dead”...they had a think and one of them said “extinct”...they said if it’s dead it’s dead, but if it’s extinct, it can never come back again...one boy said “Yes! like a dinosaur”...one of the boys could draw a dinosaur...so he drew the picture...they talked about it further...it was decided to make it look like a fossil...so the boy drew bones” (T5).

The sixth, seventh and eighth aspects of Ennis’ model (Figure 1) relate to dispositions that would lead a child to seek enough precision in detail to make decisions and to take a stance and /or change a stance when reasons and evidence are sufficient. These dispositions require a judgment of whether there is adequacy to allow decision making, which will result in the endorsement of a “position to the extent that, but only to the extent that, it is justified by the information that is available” (Ennis 1996, 171). These aspects of critical thinking are made with attention to all three analytically distinguishable dimensions outlined earlier:

1. The logical dimension since a deduction is required.
2. The critical dimension since observation is judged for reliability.
3. The pragmatic dimension, since a decision of how sure one must be and how important it is to be right, is made.

A critical thinker is able to make a decision using the three inferences of inductive reasoning, deductive reasoning and value judging, which are required across all elements of the SSCCTF (Ennis, 2010, 2011a). However they are of particular relevance to elements six, seven and eight (Figure 1), which involve the basis of the decision. A decision is made by receiving information from others, observing and judging observations. The judgments are weighed against suppositions and alternatives and previously drawn acceptable conclusions. Deductive understanding is required for interpretation of inductive inferences to hypotheses to explain the facts as well as simple generalisations. The last of the three inferences requires the thinker to make a defensible value judgment. A resulting hypothesis is made with thought to the purpose, the level of satisfaction of the judgment of the issue(s) and how necessary it is to be correct. These are all part of the process of problem solving and decision making which requires that the thinker is clear about what is unfolding and has a critical ability to be well informed and open to discuss reasons and alternatives (Ennis, 1962, 1980, 1991, 1996, 2001, 2010, 2011a).

The teachers considered that the children displayed reasoning and value judging dispositions and abilities, as they individually and collectively planned their art work.

“One little boy...he didn’t want to do a brim to his hat...“Oh! No” he said “I’ve got another idea, because my brain will be popping out of there”...so what he did was like a fez hat with the top of the hat open so all his ideas and his brain could be popping out of his fez hat...and what’s nice, is that all the other kids accept the idea...they respect everyone’s differences” (T4). (Nilson et al, 2013, 8)

“They decided because the bones were going to be white or grey they needed a dark background...they thought about a dark blue...but they thought it would be too dull...so they decided to use black...then they decided that the letters would be red and yellow...they thought it would stand out...” (T5).

The next theme conveyed a sense that that creative arts exposure contributes to developing a sense of self-awareness and an awareness of others, and capacity to care about themselves and others, which is important for development towards adulthood.

Critical Thinkers are Aware and Care about Themselves and Others

Within the SSCCTF elements is the disposition and ability for awareness of self and others, and the disposition of caring. Caring in critical thinking is analysed on three levels; the first two being constitutive dispositions for critical thinking, and the third designated an auxiliary disposition (Ennis 1991, 1996, 2001, 2011a). First, self-awareness and caring by the individual is concerned with demonstrating that their beliefs are tangible and true and that their decisions are justified and meaningful (Ennis 1991, 1996, 1998, 2001, 2011a). This was identified in the findings, when the children demonstrated a determination to maintain precision and focus on the development of their art projects.

“The attention to detail...what she was doing for the stretch festival...when we looked at what they had done...she was pointing out what they had done...the really little things, the finer things...she was pointing out such detail...the disco ball and beads in the middle...the trim on the wall...the floor boards” (M4).

Second, self-awareness and caring was reported as a characteristic of personal growth where the children demonstrated a sense of self in relation to completing their art work as they collaborated with others. It was reported that they offered and listened to reasons as they took into account the whole project, and maintained a focus on completing the task.

“I have students who now want to build each other up...I like students to discover...I don't teach all techniques in class...they say to me...“I had trouble doing this at first, but I've found a way, can I show the class?”...they have such a sense of satisfaction when they have discovered for themselves...they explain the technique and the others love it...they learn together and are really supportive” (T4).

These characteristics reflect the dispositions of a critical thinker who is aware of their own beliefs, open to seeking and offering reasons, and able to present their views clearly and honestly (Ennis 1998, 2011a).

The final auxiliary disposition of caring (Table 1) is about the worth and dignity of others. This includes valuing opinions and ideas of others and taking into account the feelings of others, by listening to other's ideas and views (Ennis 1991, 1996, 1998, 2001, 2011a). As well as developing value and respect for others, there was a sense that the children had developed self-awareness skills that are required for effective communication and interpersonal and intrapersonal relationships.

“As part of the drama class...I got each student to draw us into a moment...you know, tell us what their skin was doing, what they were thinking, what the temperature was like, what were the smells...it sometimes moves them to tears listening to each other...and at the end they said how incredible it is...it opens new rooms...they share and listen to the others” (T2).

The development of self-awareness through creative arts exposure, particularly the further transfer of awareness to others, is evident in the letter written by one of the children to thank an Artist-in-Residence for assisting their teacher in the production of their art piece (see Figure 2). The transfer of awareness to others is also highlighted in the statement of “helping each other”. The letter also reports that the student learnt “patience, hard work, concentration and teamwork”. These relate to dispositions and abilities that are required to clearly and honestly present a position with consideration to views and opinions of self and others. Problem solving abilities were also evident with the child's reference to object shape and size and the final result being dependent of the individual's decision to manipulate them. Caring was also evident in the child's

commitment to “getting it right” (Ennis 2011, 6) and persevering on the basis that “practice makes perfect”.

A photograph of a handwritten letter on lined paper. The handwriting is in cursive and somewhat informal. The text of the letter is as follows:

Thankyou for sharing your
time with... and...
Schools
We and the teachers all
had fun. It was good having you
I learnt that it takes
Patience, hardwork, concentration
and teamwork do the three
squares. It all depends on how
big tall short fat or skinny
also depends on what you make. It shows
how difficult it is and you
Never ever get it right in the
first go and that practice
makes perfect. My favourite
thing was drawing the cartoon
characters, tracing, Outlining and
coloring, and helping each other

Figure 2: Student Letter – Helping each other, patience, hard work, concentration and teamwork.

(Source: Nilson, C., C. Fetherston, and A. McMurray. 2013. Teachers' and Mothers' Perceptions of Using Creative Art to Develop Children's Potential for Critical Thinking. *International Journal of Arts Education* 7 (1): 9.)

The analysis identified a fourth theme, which described the strategies used by the children to form explanatory conclusions and to continue their projects in an orderly manner. Ennis (1991, 1996) describes this as having followed problem-solving steps that lead to considering and monitoring their own thinking.

Using Inferences and Clarification to Develop Reasoning Dispositions

Developing confidence requires dispositions and abilities that lead to seeking and offering reasons, as reflected in Ennis's elements seven through to eleven (Figure 1). This aspect of development requires that the thinker is able to listen to explanations and then, after considering the reliability of the sources, be open to alternatives by weighing up the total situation. Decisions can then be made on conclusions and the development of plans that can be positioned honestly and clearly (Ennis 2010, 2011a).

The children demonstrated that they were able to imaginatively suppose and integrate their ideas to their work (Ennis 2011b, supposition and integration) by confidently talking about their

ideas and construction of their work and defending their creative choices. Through the creative arts activity the children demonstrated the ability to connect the creative processes to other subject areas. This ability related to mathematics for measuring and constructing; history and written and spoken language to develop a background understanding of an earlier era; and science to comprehend the applications required in construction of the art works.

“Boys and girls did everything together...when we laid the floor boards, which were pop sticks...they all had to glue them on...they understood that you don't just glue them end to end otherwise it isn't strong...we stagger them...they learnt something about strength and building...the same with the bricks... “why are bricks off set?”... “well it's stronger”...umm...how we measured and drew lines mathematically on the floor to make sure our floor boards stayed straight...how we had to cut in and go back to make pieces to fit in ...there are so many different subjects related into each aspect of the project... they really had to think” (M5).

“We were following the history this year (pertaining to the art piece this school exhibited)...we invited (name of museum curator)...he talked to them...gave them the background knowledge of what it was like...where they sat...what movie's they watched...what characters were involved...it was an historical thing as well...it went from the art, to us investigating the Mandurah history...so by the time they got to see their art work we had combined it with the era...now they will talk to me about what they have found out...how things have changed since then...we've had (curator) come back and they have written interview questions for him...it was great...they really linked to the history” (T3).

In addition, these findings relate to elements 11 and 12 of Ennis's SSCCTF (Figure 1), which demonstrated that the children used metacognitive abilities of supposition and integration (Ennis 1991, 1996, 1998). The children asked questions, which positioned them to consider reasons, positions and assumptions that he/she may have doubted or disagreed with. The children also demonstrated they were able to make and or defend a decision having integrated other abilities and dispositions, which are also metacognitive abilities required of a critical thinker (Ennis 1991, 1996, 1998).

The fifth and final theme demonstrated the influence of critical thinking endeavours on the development of civic awareness in the children.

Critical Thinkers Contribute to Civic Life

When examined from a lifelong perspective the issue about application of critical thinking dispositions and abilities to civic, vocational and personal life, should not be underestimated (Ennis 2011a). Ennis (2011a) suggests that it is important for people to learn to think critically and creatively in all aspects of their everyday life. This type of thinking was also reflected in the mothers' beliefs when discussing their children's involvement in the arts activity.

“It makes them at the end of the day, a well-rounded well balanced human being for adult life...I think it helps them socially and in every aspect of life” (M4).

Collaborating, negotiating and getting along with fellow students, colleagues and neighbours, is another important aspect, which involves dispositions and abilities embedded within the SSCCTF. Ennis (2011a, 6) suggests that caring about every person includes:

- a. Avoiding intimidating or confusing others with critical thinking prowess, taking into account others' feelings and level of understanding; and

- b. Being concerned about others' welfare.

"Just watching the girls and the boys...I think it brought them all close together...the boys and girls respected each other...they were all so wrapped...they all felt proud, really proud of themselves...it was good to see" (M1).

Teachers and mothers reported that the children displayed a sense of belonging and connection to the community and a pride in the contribution they made to the community arts event. Pride was evident on three levels. The first level was one of personal pride at having contributed to the art project. The second was of school pride; having represented their school and being part of the team, while the third was their pride in contributing to a large community event.

"The children come away boosted...boosted in their self-esteem...they were so proud...wanting to get their parents to come and see the banner...wanting to get their grandparents to see the banners..."nobody's going to believe that I did this"... "I'm going to tell mum that I painted this shirt on this person"...they were so proud" (T5).

"It wasn't until they got to the foreshore that the children saw how it was all going to be put together...It all connected for them...they were so proud...seeing how it looked" (T3).

The connection to community and a sense of pride was reflected in another student letter written to the Artist-in-Residence shown in Figure 3.

Figure 3. Student Letter – Sense of pride contributing to community

Conclusion

We conclude that by providing a set of specifications to analyse critical thinking endeavours, the SSCCTF is an ideal model to frame studies investigating the development of critical thinking. The children demonstrated that through participating in the creative arts activity they developed the cues and the sensitivity to situations that enabled them to engage their dispositions and

abilities of critical thinking. They sought information to be well informed and problem solved through identifying reasons, assumptions, alternatives and conclusions. They demonstrated an ability to develop arguments and defend their conclusions to make reasonable decisions and importantly displayed sensitivity to and care for others. In these findings we see that the SSCCTF has provided a valuable guide to link the critical thinking dispositions and abilities displayed by the children undertaking a creative arts activity to characteristics necessary for its development.

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ABOUT THE AUTHORS

Caroline Nilson: Lecturer, School of Health Professions, Division of Nursing and Midwifery, Murdoch University, Mandurah, Western Australia, Australia

Catherine Fetherston: Head of Nursing and Midwifery, Associate Dean of Learning and Teaching, School of Health Professions, Division of Nursing and Midwifery, Murdoch University, Mandurah, Western Australia, Australia

Anne McMurray: Emeritus Professor of Nursing, School of Nursing and Midwifery, Griffith University, Brisbane, Queensland, Australia; Emeritus Professor of Nursing, Murdoch University, Mandurah, Western Australia, Australia

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