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The visual as a thinking tool

Developing students' critical thinking skills
through images

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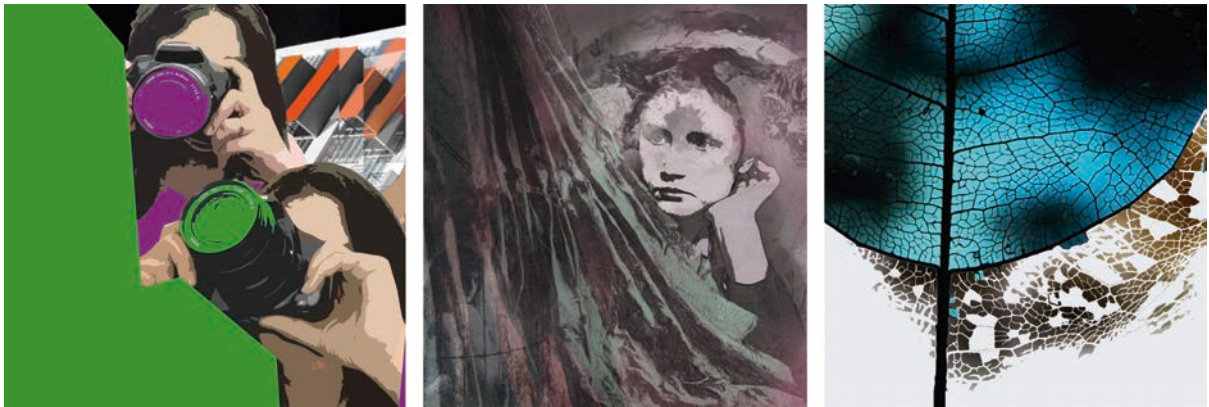


Figure 1. A/r/tographic 'fragments' representing Vena-Rose, Bella and the visual arts teachers' 'thinking'

DEDICATION

*To my beloved son, Lucas, who inspired my journey
and Jorge, the brave man who crossed the ocean with me.*

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I would like to acknowledge the people who have contributed to my research offering inspiration and support. As an international student studying in New Zealand, their help played a significant role in my understanding of the strategies of secondary school teachers teaching visual arts as a thinking tool.

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CHAPTER 1: INTRODUCTION: HOW THE RESEARCH WAS FRAMED

1.1 A personal perspective: Visual arts education in Chile

My educational path began in 2008 in Chile, my home country. After 12 years of professional dedication to the fine arts, I decided to extend my visual arts knowledge and practice to a pedagogical framework in secondary schools. As an artist, my background is in the fields of photography and new media, both allowing me to understand the importance that images have gained as a major mode of communication (Emmison & Smith, 2000; Leavy, 2009; Sturken & Cartwright, 2009). Later, as a visual arts teacher in a secondary school in Chile, I noticed that the crucial educational task of fostering thinking skills in students in order to offer them discerning opportunities (Eco, 1983; Eisner, 2002; Gude, 2007) had insufficient guidance from the curriculum (Cobos, 2010). Instead, there was a focus on visual arts compulsory content (Ministerio de Educación de Chile, 2001).

Despite the learning possibilities of visual arts, and the importance of being visually literate today, the subject has a low status and a technical focus in Chilean education (Cobos, 2010). Errázuriz (2001) explains that from an historical perspective visual arts education in Chile has followed a practical paradigm for two centuries, placing emphasis on the development of technical abilities instead of thinking skills. This has contributed to marginalization of this field and reduced it to a utilitarian role. Although the government, since the 1990s, has carried out educational reform of the curriculum to include a focus on the creation of flexible compulsory content in the teachers' plans, the promotion of reflective skills and aesthetic appreciation (Ministerio de Educación de Chile, 2005), these efforts have been insufficient (Cobos, 2010). According to Cobos's survey of 20 Chilean secondary school visual arts teachers this is due to several factors: few sessions per week (two elective sessions of 45 minutes per week at secondary level), a technical focus in teachers' practices, deficient support for visual arts teachers to carry out a conceptual approach, and a wide gap between curriculum content and the students' personal/cultural contexts. The evidence from the survey suggested a contradiction between what the curriculum proposes and what happens in reality. The scarcity of support from the Chilean Ministry of Education also shows a lack of knowledge about the pedagogical possibilities of visual arts and unawareness of the importance of visual literacy in an image-saturated era (Duncum, 2010; Freedman, 2003; Grushka, 2005; Gruskka, 2009; Gude, 2007). This consciousness is considered essential to ensure a healthier and fairer integration of younger generations into a democratic setting (Eisner, 2002; Gude, 2007).

From my experiences of teaching in Chile I could see that my artistic understandings offered me a platform to connect teenagers' daily exposure to images in relation to the study of visual culture. I concluded that developing students' critical thinking skills through images could also extend this territory beyond aesthetic concerns through an inquiry framework, encouraging in students a deep comprehension of the significance of images around diverse cultural issues (Grushka, 2009; Gude,

2007). My experiences in Chile convinced me that the place of visual arts should be reassessed because this subject provides opportunities to develop students' critical thinking through studying images from the history of art, popular visual culture and contemporary art (Duncum, 2002; Eisner, 2002; Freedman, 2003; Gude, 2007; Hogan, 2006). This is even more significant today because much information is communicated by images and students live in an image-saturated world (Emmison & Smith, 2000; Leavy, 2009; Sturken & Cartwright, 2009).

In 2012 I became an international postgraduate student studying in New Zealand. My postgraduate courses convinced me that the aim of achieving thinking skills within visual arts education is more possible in secondary school settings where the focus is not confined to the content or development of art making skills, but includes discussion, interpretation and meaningful art making (Gude, 2007; Hogan, 2006). In this new environment I could comprehend the reflective potential of this research topic. My aim was to investigate whether it was possible to develop students' critical thinking through studying images and making them, and how and whether my findings could be used and translated into a Chilean context.

1.2 The motivation for the research: From Chile to New Zealand

This research was founded in my experiences as a visual arts teacher in Chile, as described above. It was motivated by the literature which suggests that secondary students develop critical thinking skills about popular culture and ideologies through their art works, which supports the importance of being visually literate in an image-based era (Grushka, 2009).

In New Zealand I discovered that the Ministry of Education states in its key policy document, *The New Zealand Curriculum* (Ministry of Education (MoE), 2007), that one of the 'key competences' is the development of thinking skills. I found that at year 13, when students (mostly 17-18 year olds) study visual arts for the *National Certificate of Educational Achievement (NCEA)* (New Zealand Qualifications Authority (NZQA), there is emphasis on students developing visual literacies and analytical skills in their specialist visual arts subject (painting, photography, design, printmaking or sculpture). A strong motivation for my research was to collect evidence which could demonstrate that to develop students' critical thinking skills in visual arts education in Chile, teaching practices in my country would need support in order to move to a new paradigm.

1.3 The aim of the research: Possibilities for Chile

The aim of this small-scale research project, a 60-point dissertation, was to investigate how and whether a sample of year 13 secondary school students could develop their critical thinking skills through images. This involved an examination of strategies a sample of New Zealand visual arts teachers used to foster the critical thinking of their students in visual arts education and how the students responded to these experiences. The project required analysis of whether and how the

teachers' plans to encourage thinking in students through their use of images occurred in a classroom context and what knowledge the students perceived they had gained. This research also attempted to find evidence of the development of critical thinking skills during the students' art making practice, in their art works, and through their explanations of these. The final aim of this study was to offer a critical discussion around different approaches to promote cognitive skills in visual arts. The research questions were:

- To what extent are visual arts teachers in New Zealand secondary schools using images as a method to encourage students' critical thinking skills?
- How do students perceive they develop their analytical skills through images?
- How is the development of students' critical thinking skills displayed through their art making, art works and explanations?

1.4 The significance of the research

This study is important in a New Zealand context because *The New Zealand Curriculum* (MoE, 2007) actively promotes development of thinking skills and visual literacy. The findings have the potential to inform visual arts teachers in the wider secondary school art teaching community, as well as those involved in research. Possible benefits to visual arts teacher participants could include affirmation of their strategies for developing year 13 students' thinking skills through images in their programmes. Another benefit could be the potential of the visual arts teachers to reflect on their current practices. The methodology used in the study [see Chapter 4] could also inspire them as artists/visual arts teachers to undertake research using innovative visual arts-based practices in creative research designs. Possible benefits to year 13 student participants include affirmation of their learning and response to becoming critical thinkers through images, and how this was manifested in their art making processes and finished art works. Their participation in this research may also alert them further to the significance of images in their daily lives.

The study is also important in the context of me being an international student from Chile. It is hoped that the findings of the research have the potential to be applied in secondary school visual arts education in that country.

Chapter 2: A VISUAL CONTEXT FOR THE RESEARCH: WHAT THE LITERATURE REVEALED

2.1 Introduction: Developing critical thinking skills through images

Encouraging critical thinking around the visual has become an essential educational task to support lifelong learners to participate within democracy (Alter, 2011; Eisner, 2002; Gude, 2007; Grushka, 2005; Hardy, 2006). It is argued that critical thinking is a process which requires reflective skills and evaluation of ideas (Cottrell, 2005; Ennis, 2011). To foster these critical abilities, education needs to consider students as active thinkers and guide their reflective process through innovative strategies which promote independent thinking and discussions around diverse issues (Eisner, 2002; Grushka, 2005; Gude, 2007; Duncum, 2010). Developing critical thinking is also important because many images contain ideas about socio-cultural matters (Emmison & Smith, 2000) and in current times beliefs are mainly communicated by images (Leavy, 2009). The viewer also has the power to interpret images which supports the idea of encouraging a critical viewer (Duncum, 2010; Grushka, 2009).

In visual arts education it is emphasised that to encourage critical thinking through images, plans and strategies should have a reflective focus instead of a technical one (Duncum, 2010; Eisner, 2002; Freedman, 2003; Gude, 2007; Hardy, 2006). This goal can be achieved by the integration of visual literacy and a critical inquiry framework around images (Duncum, 2010; Freedman, 2003; Gude, 2007; Grushka, 2009; Hogan 2006; Wilks, 2003). An examination of literature pertaining to the development of critical thinking and the visual context underpinned this research.

2.2 Why is the development of critical thinking skills important?

Lifelong learning

Román (2005) argues that the development of critical thinking skills becomes a crucial educational aim to provide students with accurate tools for a continuous life-learning process. As shown in Chapter 3, this emphasis on lifelong learning is a feature of *The New Zealand Curriculum* (MoE, 2007). Each historical context demands different educational approaches (Gude, 2007; Hardy, 2006; Román, 2005). Within the information era, where knowledge has become an unstable element, with changes occurring as a result of constant global dialogues generated by new technologies (Lyotard, 1979), the development of lifelong learning skills is considered essential (Alter, 2011; Cottrell, 2005; Román, 2005). For this reason, Román (2005) stresses that a learning focus should replace a content-instruction emphasis in which students are encouraged to acquire information. Lifelong learning points to a new paradigm based on a cognitive model, which fosters analytical capabilities as a way to facilitate students' critical participation in their context (Eisner, 2002; Gude, 2007; Hardy, 2006; Román, 2005). Critical thinking supports learning in the long term because it enables students

to recognize significant information to solve new and complex situations (Cottrell, 2005; Hogan 2006). Alter (2011) adds that in the case of visual arts education, the development of analytical thinking should play a main role because it “promotes flexibility, risk taking, is full of possibilities and fosters independence of thought and action” (p. 2).

Opening dialogue to ensure democracy

Another reason to foster analytical thinking skills in students is that these capabilities help young people in their integration as committed citizens of society, enabling a critical approach to the world in order to discern and develop social consciousness and ethical principles (Eisner, 2002; Grushka, 2005; Gude, 2007). Grushka (2005) believes students need to develop a critical comprehension of their reality and this relies on understanding how moral values and ideologies are currently transmitted. Furthermore, Eisner (2002) claims the development of reflective competencies in education is crucial in helping students face the extensive domination of images which have powerful ideological content (Emmison & Smith, 2000; Leavy, 2009; Sturken & Cartwright, 2009). These capabilities can assist adolescents in interpreting visual messages and distinguishing the mediated features of new media and its relation to power (Grushka, 2005; Gude, 2007; Eisner, 2002). Hogan (2006) suggests, however, that it is very important to define notions of critical thinking skills prior to the application of any strategy.

2.3 What are critical thinking skills?

Ennis (2011) states that “critical thinking is reasonable and reflective thinking focused on deciding what to believe or do” is essential (p. 15). For Cottrell (2005), critical thinking is a questioning activity and works as a capability that provides the use of uncertainty as a standpoint from which an object, situation or idea is analytically tested. She adds to this concept that it is also a “complex process of deliberation which involves a wide range of skills” (p. 2). Facione (2000) agrees, describing critical thinking as an activity that intentionally amalgamates several other reasoning abilities. Within this process individuals are able to recognize others’ beliefs, assess multiple opinions, consider differing justifications, detect suppositions, distinguish convincing methods, meditate around issues, generate deductions and expose their own understanding in an organized way (Cottrell, 2005; Ennis, 2011). In addition, Ennis (2011) argues that these analytical capabilities aid individuals to test their own assumptions in light of their explanations.

2.4 How are critical thinking skills developed?

A cognitive model

To develop students’ critical thinking teachers should regard students as active learners and motivate their thinking through a cognitive model and a critical inquiry framework around real issues which provide spaces for individual reasoning and debate (Eisner, 2002; Grushka, 2009; Gude, 2007;

Hogan, 2006). For this to happen, implementation of a curriculum whose core is based in a cognitive model appears essential (Gude, 2007). According to Hardy (2006) a new paradigm situated in reasoning aims to positively challenge cultural assumptions and address multiple perspectives of the world. Hardy explains that in the case of visual arts this involves the facets of critique and exchange. This change points to the importance of social responsibility in education, in response to a scenario moved by conflicts between countries and the interactive experiences prompted by the Internet (Hardy, 2006). It is claimed that the curriculum should be an artefact whose content and philosophy must respond to its historical and cultural needs (Gude, 2007). In an image-saturated era it is an essential social concern to foster in students an individual inquiry around the connections between current images, ideas, emotions and the multifaceted experiences of looking (Grushka, 2009). Alter (2011) adds that as the application of critical thinking encourages students to examine their own and other's ideas it offers a significant learning experience that trespasses any field of knowledge.

A critical inquiry framework

A critical inquiry framework is a structure which considers each scholar as an active learner (Hickman & Eglinton, 2009) and contemplates engaging observation, analysis, understanding other's experiences and exchange of divergent ideas (Hogan, 2006). For Eisner (2002), this kind of system points to "asking students to conceptualize their own aimsto be metacognitive.... that is, be reflective about their own thinking process" (p. 37). It is argued that to implement a critical inquiry framework teaching strategies should challenge students through innovative settings which do not consider learning merely through listening, but through active discussion and exchange (Alter, 2011; Hogan, 2006; Wilks, 2003). This encourages an awareness of students' own thinking (Eisner, 2002). Alter (2011) believes that the application of a conceptual framework helps to promote independent thinking because of the evidence that any topic has diverse perspectives. For Wilks (2003), students' understandings should be exposed and defended. In this way they learn that they need valid justifications to support their own ideas. Hogan (2006) suggests that to motivate active inquiry, students should be questioned first about what they know about a problem in order to reveal their beliefs and encourage discussions.

Hickman and Eglinton (2009) claim that the value of a self-reflective inquiry framework is that by engaging individual's subjectivity it is possible to question personal views around diverse concerns. Hogan (2006) also stresses that these strategies call for individual's participation, thereby fostering students to understand how others experience their world. This enables them to see multiple understandings which do not fit in a reductive model of truth and falsity. Participatory scholarship through a critical inquiry framework based in discussions and self-thinking examination would involve students in new knowledge. These strategies offer teenagers a significant stimulus to question their own thinking about their reality.

2.5 Why are images a useful tool for developing critical thinking?

Visual images are a crucial instrument to develop critical thinking because they portray ideas around diverse social aspects through multiple layers of meaning (Emmison & Smith, 2000). Students are immersed in an image-saturated era where ideologies are mainly diffused and negotiated by visual means (Leavy, 2009; Sturken & Cartwright, 2009). Therefore, visual literacy and development of a critical approach around images have become an important educational responsibility to ensure the reflective involvement of teenagers in their communities (Eco, 1983; Eisner, 2002; Freedman, 2003; Duncum, 2010; Grushka, 2009; Gude, 2007; Hogan, 2006). Both *The New Zealand Curriculum* (MoE, 2007) and Visual Arts Achievement Standards in the National Certificate of Educational Achievement (NZQA) place emphasis on 'visual literacy' [see Chapter 3]. There is, however, a lack of theoretical literature based on critical thinking within visual arts education, which indicates an unwilling attitude towards using inquiry strategies through images (Alter, 2011; Efland, 2002; Hogan, 2006). Hogan (2006), however, maintains that in recent years critical thinking has appeared progressively as a concern within visual arts curricula, indicating a change in focus.

The relationship between the image and the viewer

While images have the power to portray ideologies, many authors argue that it is the viewer who applies the power of giving images' their last meaning (Duncum, 2010; Leavy, 2009; Sturken & Cartwright, 2009). In order to practice this power it is important to encourage a critical understanding around the visual. Sontag (2003), in the context of photographs as visual images, suggests that "The photographer's intentions do not determine the meaning of the photograph, which will have its own career, blown by the whims and loyalties of the diverse communities that have use for it" (p. 39). For Sturken and Cartwright (2009), the meanings of images are negotiated according to particular historical and social contexts. In relation to this, Mitchell (2005) suggests that instead of asking "what pictures want", it should be the exchange between the image and the beholder that is examined (p. 49). Sullivan's (2005) view is that interpreting images should be considered as the result of dialogue among individuals' backgrounds and the picture. Within contemporary art, Duxbury (2008) asserts that the interpretation of images "resides less in the artists' desires of self-expression than to evoke a response in the viewer" (p. 19). This calls for active looking. Barthes (1967) also supports the construction of a critical viewer who practices analytical looking. He explains that images, as texts, are built into the beholding action and this is filtered by the political and cultural standpoint of the viewer. This reflective looking is what visual arts education should foster through current images.

Questioning ideologies through images

Leavy (2009) maintains that another convincing reason to use images to create critical thinking is based on the power of images to question the mainstream and dislodge ideologies. This author explains that images constitute a strong medium for social challenge and the opportunity to represent minority groups. Images, therefore, offer an important font of knowledge, specifically to approach

identity questions where the access to marginalized voices is needed. Sturken and Cartwright (2009) reinforce this notion, declaring that images have the power to raise ethical consciousness. Emmison and Smith (2000) support this idea, arguing that the evocative power of images and its high resonance with diverse viewers can be used to dislocate power structures or social conventions. For instance, contemporary art works are significant visual sources to foster reflective skills in students because they have the ability to present an inquiry about current cultural issues (Eisner, 2002). Hogan (2006) adds that the contemporary notion of art allows for the disappearance of material features and points to critically exposing existing issues in unlimited ways, thereby challenging traditional understandings of art. For Charman and Ross (2006), thoughts prevail over meaning in current visual arts works, thus the ability to understand the beliefs inherent in a contemporary art work becomes essential. These authors describe this artistic practice as one in “which meanings can be contradictory, multiple, open-ended and certainly unstable” (p. 30). This definition of contemporary art relies on the main value of using art works as a visual source to develop critical thinking. Due to their lack of a unique meaning they can be understood through multiple perspectives.

2.6 What is the power of images in an image-saturated era?

Persuasive power

The persuasive quality of images has been historically exploited to expose particular viewpoints of reality, rather than transparent observations, because they always portray meaning (Leavy, 2009; Sturken & Cartwright, 2009). Leavy (2009) explains that the persuasive power of images, via art works, advertisements, photographs, and digital manipulations, relies on their descriptive and evocative power which has been used to promote beliefs. This author argues that the evocative power of images lies in the fact that they are profoundly rooted in an individual’s memory; that images can remain and recall emotions, thus are used as vehicles to influence. This issue is ever more dominant in current times where the visual saturates everyday lives (Gitlin, 2002). Sturken and Cartwright’s (2009) view is that while images have been historically manipulated to communicate meaning this has been exacerbated through new and varied forms of media. For them, a problem arises because despite the technological advances to manipulate an image photographs are mainly perceived as objective representations of reality. This idea is based on the fact that there are mechanical procedures involved in making photographs. However, there are also interlinked subjective decisions through the whole process of creating images (Leavy, 2009; Sontag, 2003). Although photographs have enormous power to describe realities, images are mediated social creations which can promote any kind of beliefs (Emmison & Smith, 2000). Duncum (2002) argues that the visual has been used in current times to support a culture of consumerism and individualistic desires. Thus, democracy is threatened by a purchasing rationale and a visual phenomenon that portrays information for economic interests. This, Duncum states, is the opposite purpose of visual arts education which aims to use the visual to form critical citizens with a sense of community.

Freedman (2003) suggests that another significant reason to encourage thinking around images is based on the implications that the visual has on 'identity'. This is especially important in an image-saturated era in which images have the power to influence viewers in ways that they might not note. Grushka (2005) reinforces this impression, stating that the creation of identity is influenced by visual codes transmitted by mass media. The problem with these symbols, she states, is that they are moved by purchasing values and are socially spread by selling the image of youth, thus have the potential to affect teenagers. However, the idea of a viewer being completely persuaded by the image's discourse should not be overemphasised because the observer also has the power to critically interpret images and become involved in a negotiation process (Sturken & Cartwright, 2009). This suggests that to produce an effective mediation from the viewer, education should foster critical skills around the visual.

High resonance: The audience becomes a global village

The importance of images lies in their influencing power and their high resonance on audience's emotions, which enables their potential to generate an extraordinary impact on population (Leavy, 2009; Sturken & Cartwright, 2009). Sturken and Cartwright (2009) argue that "reproduction allows images to circulate with political meaning... which has increased the ability of images to captivate and persuade" (p. 199). Gitlin (2002) argues that today contact with the visual is exaggeratedly repetitive. Consequently, ideas embraced by mass media images bombard the sight affirming current beliefs, but also announcing social transformations.

Sturken and Cartwright (2009) assert that the simultaneous reproduction and diffusion of images by new media in diverse parts of the world has increased the impact of images on society. The value of these images lies in the immediacy with which they are reproduced and transmitted worldwide. As example, Kellner (2006) explains that the shocking images of 9/11 which circulated globally, revealing a 'spectacle of horror' against the twin towers, later served to support a political plan to deliberately attack Iraq. Although images have been used before to sensationalize issues and promote political aims, the '9/11 show' had an impact never seen before because of the visual excess of the action and the current power of media to spread those images. This phenomenon promoted the sensation of a global village linked by the experience of looking (Mitchell, 2011). Sontag (2003) believes that the impact of these shocking images is how they could serve as a 'catchphrase' (more effective than words) to keep people thinking around an issue and to create ideologies. Mitchell (2011) argues that any story has two versions; one that is linked to what occurred and the other to the way the story was told. The importance of the visual, in light of what has been mentioned, is that it gives audiences a worldwide sense of being simultaneously connected by images to an event that belongs to a global and immediate reality.

2.7 How can the visual be used to develop critical thinking in visual arts education?

As explained in Chapter 3, *The New Zealand Curriculum* (MoE, 2007) identifies 'thinking' as one of its five 'Key Competencies'. It states that "Thinking is about using creative, critical, and metacognitive

processes to make sense of information, experiences and ideas” (p. 12). In the Visual Arts section of the curriculum there is emphasis on students developing “visual literacy and aesthetic awareness...” (p. 21). Art education theorists support the development of these competencies and literacies. They recommend that in order to foster analytical skills through images, visual arts education should be arranged around thinking, rather than merely focusing on formal art making skills (Duncum, 2010; Eisner, 2002; Freedman, 2003; Gude, 2007). In their view, the inclusion of visual literacy, and a critical inquiry framework around images that expose diverse issues, can underpin meaningful art making in visual arts education (Charman & Ross, 2006; Duncum, 2010; Freedman, 2003; Gude, 2007; Hickman & Eglinton, 2009; Hogan 2006).

Visual literacy

The concept of visual literacy goes beyond the study of fine arts and revolves around the idea of visual culture. This has been defined as a new area of knowledge that contemplates images as the main medium involved in meaning-making and includes “the art history, media images and the visual in everyday life” (Dikovitskaya, 2005, p. 2). Duncum (2009), a leading exponent of ‘visual culture’, argues that the inclusion of visual literacy in visual arts education becomes a challenge and a crucial educational responsibility to foster critical citizens. It has been stated that within visual arts education two trends have been identified, one focused on creativity and the other on critique; the first aims at crafting skills and the other at developing critical thinking (Eisner, 2002; Duncum, 2002; Wilks, 2003). Duncum (2002) explains that in the technical or skill-based stream there is a lack of strategies requiring students to inquire into issues that an artist or a popular image portrays. Instead, students are asked to imitate approaches used by artists which do not generate opportunities to express their own ideas. It is argued that visual arts education should generate innovative inquiry frameworks and strategies around visual culture in order to develop original and critical thinking in students, to help them understand visual discourses with independence and social consciousness (Freedman & Sthur, 2004; Grushka, 2005; Hamilton, 2008). The value of visual culture is that it contains images and issues that are relevant for adolescents because the visual is a large part of their lives (Grushka, 2009). This means that students should be able to readily engage with visual culture if they are guided through a critical teaching practice around images.

A critical inquiry framework around images

A critical inquiry framework in visual arts is a structure that works as a multi-layer instrument that facilitates the reading of images (Alter, 2011; Charman & Ross, 2006; Pilkinton, 2003). Pilkinton (2003) explains that it includes interpretation, multi perspectives, and influences to reveal the beliefs that underpin personal views. This author claims that such a framework “encourages the view that an art work is recreated every time that it is aesthetically experienced” (p. 56). For Hogan (2006), this tool considers the elements around the art work, such as the maker, the public, the artist’s context, the topics and questions, as well as its symbols and formal operations. Hogan adds that it fosters the critical understanding of underlying meanings and ideas contained in an art work. Charman and Ross (2006) agree, stating that such an analytical structure offers students relevant means to read

contemporary visual arts. This arrangement can help them in the complex task of understanding current artistic art works “whose meanings can be contradictory and multiple” (p. 30). These authors argue that art works should not be approached merely by conventional decoding strategies, in which the teacher reveals its connotations, but by an active discussion assisted by the teacher’s guidance. To apply this structure into students’ art works Charman and Ross (2006) recommend the use of a journal as a researching document where diverse interpretive strategies can be used to analyse their own art making. Page et al. (2006) clarify that the aim is not to discover the ‘right meaning’ of images, but to develop a common understanding after debate. In the teaching examples these authors provide, students have to choose an artist and the critical framework requires them to justify their selection by proposing an argument that is discussed. Grushka (2009) argues that the inclusion of self-inquiry in the art making process is essential and works as a structure that guides students to develop their thinking around how artists visually represent their ideas. In this way, they are empowered to situate their own art work.

A critical framework within visual arts education evidently offers students the opportunity to discover meaning through the application of critical thinking skills. This opens a space to hear diverse voices, and represents a test to the discerning process. With this approach students are able to recognize the issues contained in an image discussed and identify possible meanings underlying it, as well as how the artist combines the elements in a coherent whole.

2.8 Summary

From the literature it can be seen that encouraging reflective thinking around images is an urgent educational aim because it offers appropriate skills to form active learners for life and provides opportunity to critically participate in society. It has been justified that the current global context, with important conflicts between cultures and rapid changes around knowledge, demands a new educational paradigm. Within visual arts education, it should also be acknowledged that in the 21st century, where ideologies are principally transmitted by images, there is a corresponding demand for new aims and approaches focused on analytical capacities (Duncum, 2010). To develop critical thinking skills in students they must be encouraged as autonomous thinkers through the discussion of diverse issues. In light of this argument, images are assuredly a powerful source of knowledge because they represent cultural beliefs but viewers can interpret them in multiple ways (Leavy, 2009). Therefore, the visual is a useful instrument to pose questions around different subjects, but to aid students’ mediation of images visual arts education should pay special attention to the formation of a ‘critical looking practice’ (Sturken & Cartwright, 2009) through an analytical inquiry framework. This review of literature, which has established the ‘visual’ context for the research, complements the ‘educational’ context presented in the next Chapter.

Chapter 3: THE EDUCATIONAL CONTEXT: WHAT THE POLICIES INTENDED

3.1 Introduction

This chapter provides the educational context for the research. It focuses on curriculum and assessment statements pertinent to year 13 students studying visual arts in one or more specialist fields such as painting, printmaking, design, photography and sculpture. *The New Zealand Curriculum* (MoE, 2007) provides official policy for English-medium teaching and learning in years 1-13, although its educational direction is applied primarily at years 9-10 in secondary schools. While visual arts education during these years sets the scene for art education at years 11-13, senior students seek to gain achievement through *The National Certificate of Educational Achievement* (NCEA), Levels 1-3.

3.2 The New Zealand Curriculum

The New Zealand Curriculum (MoE, 2007) provides a clear statement of what is deemed important in education. In its Foreword, the Secretary of Education, Karen Sewell, wrote:

It takes as its starting point a vision of our young people as lifelong learners who are confident and creative, connected, and actively involved. It includes a clear set of principles on which to base curriculum decision making. It sets out values that are to be encouraged, modelled and explored. It defines five key competencies that are critical to sustained learning and effective participation in society and that underline the emphasis on lifelong learning (p. 4).

Although the curriculum is applied predominantly at years 9-10 in secondary schools it underpins the National Certificate of Educational Achievement discussed below, which applies at years 11-13. Pertinent to my research, the curriculum contains a 'Vision' (what we want for young people) that places emphasis on Lifelong Learners (p. 8). This category includes 'Critical and creative thinkers' (p. 8). The curriculum also identifies five 'Key Competencies', one of which is 'Thinking' (p. 12). This competency is described as:

Thinking is about using creative, critical, and metacognitive processes to make sense of information, experiences and ideas. These processes can be applied to purposes such as developing understanding, making decisions, shaping actions, or constructing knowledge. Intellectual curiosity is at the heart of this competency. (p. 12)

In the Visual Arts section of the curriculum there is emphasis on students developing "visual literacy and aesthetic awareness..." (p. 21). At each level of the curriculum, years 1-13, there are four 'strands' for each curriculum area. For example, at Level Eight of the visual arts curriculum (the curriculum level for year 13 students) these strands are:

- Understanding the Visual Arts in context
- Developing Practical Knowledge

- Developing ideas
- Communicating and Interpreting

In the first strand, the achievement objective is for students to “Use research and analysis to investigate contexts, meanings, intentions, and technological influences related to the making and valuing of art works”. For the fourth strand, the achievement objective is for students to “Critically reflect on, respond to, and evaluate art works” (p. 51). Thus, the Curriculum can be seen to encourage the development of students’ critical thinking skills at year 13 through their curriculum areas such as Visual Arts.

3.3 National Certificate of Educational Achievement (NCEA)

Positioned alongside *The New Zealand Curriculum*, but with a very different function, is the National Certificate of Educational Achievement. NCEA does not provide the *curriculum*. Instead, it is the *assessment tool* used to assess students’ performance at years 11-13 in the senior secondary school. NCEA was introduced in response to the New Zealand Government’s decision to have a single and coherent system of qualifications for students at years 11-13. A development known as ‘Achievement 2001’ was initiated in 2001 by the Ministry of Education, from which qualifications were developed in partnership with the New Zealand Qualifications Authority (NZQA). These qualifications are registered on the National Qualifications Framework (NQF). A feature of the year 11-13 NCEA qualifications is that students’ performance in all their curriculum areas is measured by standards-based assessment. Thus, each curriculum area offers Achievement Standards which guide the assessment process [see Matrix Appendix B3].

The most distinctive feature of the Achievement Standards for Visual Arts is that they are not ‘content-based’. Visual arts teachers have the freedom to design programmes for, and with, their students. At NCEA Level 3, which applies to this research, each student explores their own content [see Chapter 5] which is assessed against the achievement criteria in three Achievement Standards. A further feature of NCEA Level 3 is that five visual arts ‘fields’ are offered – design, painting, photography, printmaking and sculpture. Whatever field (or more than one) the student is working in, the same Achievement Standards apply:

Achievement Standard 3.1: Research and analyse approaches within established design / painting / photography / printmaking / sculpture practice (Internally assessed, 4 credits) [see Appendices B4, B7].

Achievement Standard 3.2: Investigate and use ideas and methods in the context of a drawing study in design / painting / photography / printmaking / sculpture (Internally assessed, 6 credits) [see Appendices B5, B8].

Achievement Standard 3.3: Produce original work within design / painting / photography / printmaking / sculpture to show extensive knowledge of art-making methods and ideas (Externally assessed by portfolio, 14 credits) [see Appendices B6, B9].

Of relevance to this research, there is an emphasis in each Achievement Standard on ‘thinking’. This concept is assessed and described by Achievement Criteria around three different processes: Researching, Drawing and Producing.

In the case of Achievement Standard 3.1, ‘thinking’ is concentrated in researching and developing a critical analysis around the connections between diverse approaches. A key point within this Standard is that students are encouraged to develop an individual investigation around their socio-cultural context, according to their own concerns. A benefit from this Standard is that it encourages students to critically analyse the ways in which different artists convey meaning and how their discourses are influenced by their context. This later underpins the students’ self-reflective practical investigation through their own art works.

For Achievement Standard 3.2, ‘thinking’ revolves around drawing which has been defined as a ‘thinking and working process’. This is explained as an “on-going decision making process that enables a continuum to be established and maintained”. It includes the study of concepts, approaches and techniques around the artists investigated in 3.1 in order to create, evaluate and elucidate thinking. This involves a critical evaluation of the work of contemporary artists in order to synthesise those ideas in the students’ own art works. Drawing is intended to be systematic, meaning that critical ‘thinking’ is involved in each stage of the process.

Within Achievement Standard 3.3, ‘thinking’ is focused on producing art works, which includes drawing as an essential evaluative process. This critical practice allows students to achieve a deep understanding about the features and limitations involved in multiple approaches, procedures and techniques. It focuses on the development of organized, coherent and original visual arts production, which shows evaluative ‘thinking’ around students’ cultural milieu and their own practice in a selected field. This Achievement Standard emphasises that critical ‘thinking’ is evidenced in the capacity of students to analyse their own work, make accurate evaluations and produce final work.

3.4 Summary

Both *The New Zealand Curriculum* (MoE, 2007) and the Achievement Standards used to gain credits for the National Certificate of Educational Achievement (NZQA, 2012) underpinned this research. Although the visual arts teachers and their year 13 students were free to design the content of their individual art programmes, the students’ work was assessed through NCEA. This educational context, together with the literature review pertinent to developing critical thinking skills through images [see Chapter 2], informed the Methodology and methods for the research which are explained next.

Chapter 4: METHODOLOGY AND METHODS: HOW THE RESEARCH PLAYED OUT

4.1 Introduction

This research was motivated by my experiences as an artist and secondary school art teacher, as explained in Chapters 1 and 2. Chapter 3 focused on the educational context for the research. This chapter outlines the research paradigm, methodology, methods of data collection and analysis, and the ethical issues. The research is a small-scale study using some traditional social science methodology and methods (Punch, 2009), but with more focus on arts-based methodology. The latter is underpinned by the theoretical perspectives of *a/r/tography*, an art-based research practice that links art, research and teaching, privileging text and image (Irwin & de Cosson, 2004). The selection of a visual method of enquiry was based on the evocative power of images (Duxbury, 2008; Leavy, 2009) and the significant place they have in human lives (Emmison & Smith, 2000; Sturken & Cartwright, 2009). It was grounded in the transformative power of ‘visual knowing’, which suggests that diverse and rich thinking occurs in the context of making images or studying them (Eisner, 2002). Within a framework that aimed to investigate the development of critical thinking skills through images, a visual methodology appeared to be the most coherent approach because it allows for the inclusion of images as a way to capture, collect and symbolize information.

4.2 The theoretical framework for the research

The aim of this study and the research questions are presented in Chapter 1. To best answer those questions I selected the theoretical position of *a/r/tography* to underpin the research. Irwin (2004), a leading exponent of this methodology, states that “*Theory as a/r/tography* creates an imaginative turn by theorising or explaining phenomena through aesthetic experiences that integrate knowing, doing and making” (p. 31). *A/r/tography* represents the metaphoric merge of three roles: artist, researcher and teacher. Irwin and de Cosson (2004) elucidate this methodology as a creative land of dialogue and experimentation between these different fields. They also describe it as a method that amalgamates written text and image, in order to approach deeper meanings involving the self and others. Within this frame, the ‘visual’ works as a complementary part of the research to communicate meanings that cannot be exposed by words (Springgay, 2002). The visual also adds essential material to research that could not be explored by other means (Eisner, 2002). Inclusion of images is validated in terms of its power to recall viewer’s emotions and include researcher’s interpretations (Wilson, 2004). To surpass the subjective nature of this approach, image-maker’s meanings can be revealed through written text (Irwin & de Cosson, 2004). Instead of giving generalizations about a question, *a/r/tography* requests audience participation, which is the final aspiration of education (Wilson, 2004). Within this framework the arts operate throughout all stages, from data compilation to evaluation and representation; it works as a vehicle to acquire knowledge and through process creates consciousness (Leavy, 2009).

4.3 The research settings and participants

For this small-scale study the research settings were confined to two secondary school Art Departments. The participants were the Head of Art Department in each school and a year 13 visual arts student working in a selected field for NCEA Level 3 Visual Arts. Because I am an international student studying in New Zealand my supervisor, Dr Jill Smith, 'purposively' selected the teacher participants from two different types of schools - a mid-decile large co-educational multicultural school and a high-decile single-sex girls' school. The schools had to have art departments sufficiently large so that there were separate year 13 classes for different visual arts fields. While this approach to selecting participants was determined by the size and timeframe of my dissertation, it can be justified by the qualitative approach that seeks thick, contextualised data (Punch, 2009).

The two visual arts teachers, who were both European and experienced educators, were asked to explain the research project to their year 13 specialist class and to invite a volunteer to be the year 13 student participant. The population of School A, the multicultural co-educational school, comprised students of over 50 different ethnic groups. The teacher at school A is referred to as Yolande (pseudonym). The student participant, Vena-Rose (pseudonym), was of Fijian ethnicity and in the Level 3 Photography class. The population of School B, the girls' school, was less culturally diverse with most students being European. The teacher at school B is referred to as Shannon (pseudonym). The student participant, Bella (pseudonym), was European and in the Level 3 Painting and Printmaking class. All participants were fully informed of the research [see Appendices A1, A3, A5] and asked to give their consent for all the proposed data collection methods [see Appendices A2, A4, A6]. Once access to each school's Art Department had been granted by the schools' Principals, data collection could commence.

4.4 The methodology and methods

The research methodology was underpinned by a qualitative social research paradigm (Punch, 2009) with the design and data collection methods influenced by the research questions. This perspective was chosen because it allows description of social life from the viewpoint of the involved group as well as the investigator's own understanding (Leavy, 2009). It enables capturing of diverse views and selection of fragments of them to inform meaning (Punch, 2009). The aim was to collect sufficient data that would provide enough detail but also allow for meaningful connections and comparisons by a multi-method approach (Brewer & Hunter, 2006).

For this research four data collection methods were used, preceded by document analysis to establish the educational context [see Chapter 3]. Each method included visual documentation, an essential component of a/r/tographical methodology. The aim was to use photographs as data but to also *represent* data. As Leavy (2009) explains, the power of the image cannot be underestimated; that "a picture is worth a thousand words" (p. 215). Furthermore, she states:

Visual imagery does not represent a window onto the world, but rather a created perspective....photographs are thought to 'capture' and record some aspect of the social

world but it is the viewpoint of the photographer and the context in which the photo is viewed that is important. (p. 215)

The decision to use photographs was also influenced by Weber's (2008) rationale, 'Ten good reasons' for using visual images in research. However, the requirements of the University of Auckland Human Participants Ethics Committee (UAHPEC) included an assurance that I would 'disguise' the identities of the teacher and student participants. This was achieved through long time photographic exposure, manipulating the images, cropping, and selecting 'fragments'. The reason for using 'fragments' was informed by various a/r/tographers, such as Springgay (2002), who states that fragmentation offers multiple views including self and others, working as a dialogue and inviting an open interpretation. The value of using fragments within research is that they are evocative pieces of meaning, which activate emotions that the totality cannot suggest (Duxbury, 2008). The inclusion of fragments within research, as a form of collage, allowed for the integration of diverse data (Leavy, 2009). The a/r/tographic presentation of my findings aimed to include my conclusions, evoke emotions and create unexpected contrasts (Irwin & de Cosson, 2004). This also offered a new means to represent my own understandings and create meaning. The images collected and made during the research are presented in the findings, in relation to text, in Chapter 5.

Interviews with teachers

A 90-minute interview with each teacher, audiotaped and supported by photographic documentation of them, was conducted at the schools. The rationale for using semi-structured interviews, with a preconceived list of questions [see Teacher Interview Questions, Appendix B1], was to enable both teachers to be asked about similar aspects, but to allow for their individual voices and experiences to be heard (Drever, 1995). Brewer and Hunter (2006) maintain that in order to find answers to questions it is vital to ask good questions which can elicit more than just the responses the researcher may be anticipating. Both teachers were asked about their strategies for fostering thinking skills in students studying visual arts, the findings of which are discussed in Chapter 5. The participants' 'voices' were prioritised in the research alongside images. With their consent, the teachers were photographed to lend visual context to the interview and the supporting materials discussed. Leavy (2009) argues that when researchers produce images they must provide context, including statements by the research participants. Thus, taking photographs during data collection was in order to *elaborate* on data.

Observations of teachers and students

A 60-minute observation was conducted of each teacher working with their year 13 student, supported by audiotape and photographs taken in the context of the art room. This decision was influenced by Eisner (1991) who claims that "the richest vein of information is struck through direct observation of school and classroom life" (p. 195). During the observation I took the role of participant-observer to learn from, not just about, the participants in relation to the research questions (Punch, 2009). During the lessons I audio-taped conversations and took photographs. As part of the

consent process the art teachers explained to other members of their year 13 class that data collection would take place in the classroom context. The ethics requirements determined by UAHPEC required me to give assurance that no other students would be audio-taped or photographed. Focus therefore centred on the student participant, their art making processes and the area of the art room in which they were working, as well as their interactions with their teacher.

Interviews with students

An interview with each student was conducted in the art room studio. The students were interviewed about how they thought they developed critical thinking skills within their visual arts subject. These questions focused on the importance of images to them, how they had selected art works by artists to influence their work, and how they were going to visually map out a 'journey' through the different stages of their course [see Student Interview Questions, Appendix B2]. The interviews were audiotaped and photographs taken in order to capture as much information as possible about the students and their individual NCEA level 3 art making processes.

Selection of art works by students

The students were invited to select some visual / text a/r/tographical 'fragments' which illustrated their thinking skills. These examples were selected from their art making processes in their workbooks or visual diaries, and some art works which they thought illustrated the development of their thinking skills. This process was also audio-taped and photographed. Care was taken to meet ethics requirements (UAHPEC) that student work for their national examinations would not be identifiable.

Making of art works by researcher

As part of the presentation of the research findings in Chapter 5 I used the students' a/r/tographical 'fragments' to compose an art work that represented 'metaphorically' each student's process and learning obtained through discussions and art making. This method was influenced by Smith's (2009) re-presentation of her doctoral (text-presented) research findings in an (image / text) exhibition. As part of the consent process students had agreed for 'fragments' of their work to be used in mine, and that their work would be acknowledged. In making this art work I integrated my own interpretations and appreciations within the process. In this context the application of an a/r/tographic approach to research is coherent (Irwin & de Cosson, 2004). This methodology, which engages with the 'self and others', allowed me to include my own analytical process in a cohesive visual / textual unity to represent my personal findings from the research.

4.5 Validity, reliability and ethical considerations

The validity and reliability of research data and findings are dependent on a number of factors. These include following rigorous protocols, ensuring ethical processes, using reliable methods (including

less tested arts-based methods), and identifying potential limitations of the research. A key factor in ensuring the validity of the research was maintaining the protocols above.

This research took into account the issue of anonymity and followed the protocols and processes surrounding ethics. The ethical acceptability of the research process depends on ensuring that no harm comes to the participants and conducting the research in a reliable way (Punch, 2009). All participants were fully informed of the research through individualised Participant Information Sheets and asked to sign Consent Forms. As required by UAHPEC, all the consent forms and the data will be securely stored for a period of six years and then destroyed.

A major concern with using visual-arts based participatory methods is the ethical implications (Sinding, Gray & Nisker, 2008). These authors alerted me to the issue of ethics in relation to people who create visual representations (myself, for example) in relation to audiences, and in relation to research participants. From Sinding, Gray and Nisker I learnt that I must “fully disclose (my) methodological procedures” (p. 464), which I have done. I also received advice on how I could “sever the link between image and identity” by using photographs of context without people; that I could “sidestep the risk of identification” by manipulation of images to disguise identities (for example, of the participants and the students’ art works); and that I should enable the participants represented “to engage with the images before they are put in the public domain” (pp. 464-5). While each participant was offered the opportunity to edit the transcript from their audio-taped interviews, the chance to view unedited photographically recorded material was not provided. However, assurance was given that all visual material would be selected and presented with sensitivity and care. All participants, including the school Principals, will receive a PDF of the completed dissertation once it has been examined.

The combination of the mixed methods used for data collection in this study can allow for the findings to be a mix of ‘thick’ or ‘rich’ descriptions which enhance plausibility (Punch, 2009). Punch is clear that partiality is required from researchers as ‘researcher bias’ can alter the findings. In this study, I have endeavoured to remain partial at all times and tried to protect the validity of the data and conclusions through an objective paradigm (Silverman, 2005). Brewer and Hunter (2006) maintain that a multi-method approach can provide validation through cross-checking. While Hammersley (2008) argues that validation of this research cannot be accurately attributed because of it being such a small-scale study, he also suggests that data from different participants and different data collection methods can indicate overlap as well as discrepancy, and therefore can contribute to a fuller picture.

4.6 Data analysis strategies

The analysis of the different sets of data was conducted within the framework of the qualitative paradigm (Hammersley, 2008; Punch, 2009; Silverman, 2001) and arts-based a/r/tographical methodology (Irwin & de Cosson, 2004; Leavy, 2009). The data analysis was an on-going process that began from the first moment of data collection (Silverman, 2001). Throughout the a/r/tography process, knowledge was acquired from gathering material to analysis and reporting (Leavy, 2009), thus meaning-making occurred from the beginning of the research journey. The literature set a

number of key concepts that later guided the interview questions and evaluative looking, discussed further in Chapter 5.

The interview transcripts from the visual arts teachers were analysed for similarities and differences between their responses in the context of the research questions. This process was replicated with the students' transcripts. Each transcript was annotated to record themes and emerging concepts (Punch, 2009). Text-based data were coded and categorised to enable comparisons to occur. Significant findings, expressed through the 'voices' of participants, were recorded verbatim and kept to be used as direct quotations to enrich and enliven the dissertation. Following analysis of the interview transcripts, data from the observations of student-teacher interactions were analysed. Of significance for this research was the analysis and interpretation of visual data collected during the interviews and observations. I learnt from Collier and Collier (1996) that "... the goal should not be to 'decode' or 'translate' visual data (for example, photographs) into verbal data per se, but rather to build a bridge between the visual and the verbal" (p. 169). Collier (2001) explains that the analysis process involves four phases: observing the visual data as a whole; making an inventory or log of images using categories that reflect the research goals / questions; using a structured analysis of the data with specific questions to produce detailed descriptions; and searching for meaning to draw conclusions based on the entire visual record. The final process was to cross-check the findings from what I observed during the lessons, what I heard during the conversations, and what I captured in the photographs. From Stephenson (2004) I learnt that I had to understand my research visually, in terms of representing my findings through visual means, not only by words, which implies "digging.... to see patterns in the layers of facts or artifacts" (p. 171).

The visual analysis was achieved through a series of images, which have the power to represent an experience in order to collect, find and correlate key categories (Becker, 1974). A leading exponent of visual sociology, Becker adds that gathering and evaluation of data are simultaneous tasks which work as deliberate procedures that seek to create theory through images. Therefore, both actions were based on what I knew about the reality I was studying.

To overcome the problem of subjectivity during the analysis of photographs, I used ideas from cultural studies which have established a group of key concepts that helped me cluster images by categories (Emmison & Smith, 2000). The generation of these classifications was also influenced by my personal views. From Irwin and de Cosson (2004) I learnt that to apprehend the strength and passion of some data its examination should include the researcher's interpretation. These authors consider it important that a/r/tographic representations are sufficiently flexible to accept personal understandings in order to evoke emotions and represent meaning. Although the main analytical content is visually presented, this had to be complemented by written text in order to integrate images in a valid way (Irwin & Cosson 2004; Marin & Roldán, 2010; Sullivan 2005). Using this approach, I reshaped the raw data through my own interpretations as artist/teacher/researcher and then verified whether the final report represented participants' thoughts. A/r/tographers recognize that there is no uncontaminated data and investigations are always permeated by ideologies, interpretations and personal experiences (Prendergast, Gouzouasis, Leggo & Irwin, 2009).

4.7 Limitations of the study

It is important to acknowledge the limitations of any research project, especially a small-scale study such as this (Silverman, 2001). While the initial research proposal included three different types of school settings - a low-decile single-sex boys' school, a mid-decile large co-educational multicultural school and a high-decile single-sex girls' school, the Research Approval procedures recommended that I reduce the scale from three to two schools in order to meet the time frame and practicalities of a 60-point dissertation.

The small sample of four participants was undeniably a limitation of the study. On the other hand, this research could be replicated by other researchers using a greater number of participants and a wider diversity of secondary schools. Within such a framework there is scope for further contributions to be made to a larger body of knowledge (Punch, 2009).

4.8 Summary

This chapter presented the rationale for the theoretical framework underpinning the research, and the use of methods associated with qualitative research and the innovative arts-based methodology, *a/r/tography*. The use of images as a methodological tool has been justified by their power to provoke emotions, their fundamental role in creating meaning, and the way in which they provided feedback to the researcher. The significant role that images play [explained in Chapters 1 and 2] fully justifies their inclusion in research, taking into account that the ultimate purpose was to provoke and enlighten, rather than establish certainties. The choice of a multi-method approach is justified in the context of the research questions. Who the participants were and how they were selected has been explained. The ethical issues associated with arts-based participatory methods have been addressed. Albeit a small-scale study, the insights gained from the research are rich and exciting. The 'voices' of the teacher and student participants, and the art making processes of those students - together with my *a/r/tographical* 'fragments'- are presented in appropriate multi-method forms in Chapter 5.

Chapter 5: THE FINDINGS FROM THE RESEARCH

5.1 Introduction

The aim of this research was to analyse how and whether it was possible to generate critical thinking skills in year 13 secondary school students through the study and creation of images. The settings for the research, described in Chapter 4, were framed in a small-scale study limited to two secondary school Art Departments. The aim of using these two settings was to determine how thinking abilities were developed in contrasting schools - a mid-decile large co-educational multicultural school and a high-decile single-sex girls' school.

The findings in this chapter are a summary of data collected through four different modes, all of which were audio-taped and supported through photographic documentation. The first mode, individual interviews with each teacher in their chosen setting, was followed by observations of them working with their year 13 student participant in the art room environment. Thirdly, an interview with each student in the art room was followed by them selecting some art works which they considered demonstrated their critical thinking process.

The ultimate objective of this research was to propose a critical debate around diverse strategies to encourage reflective skills in visual arts education, underpinned by the following research questions:

- To what extent are visual arts teachers in New Zealand secondary schools using images as a method to encourage students' critical thinking skills?
- How do students perceive they develop their analytical skills through images?
- How is the development of students' critical thinking skills displayed through their art making, art works and explanations?

In the following sections I describe my findings around the strategies to develop critical thinking through images, which are organized by school and mode of data collection.

5.2 School A: A mid-decile large co-educational multicultural school

Interview with visual arts teacher Yolande: Modelling the idea of being curious

This teacher was interviewed in her office where the conversation was shaped by the interview questions [see Appendix B1] and extended by supporting material used to encourage students' thinking around images in their year 13 photography classes. Yolande stated that her practice is underpinned by the NCEA objectives which point to create thinking through the individual investigation of visual ideas. Her classes follow a "student-centred" mode where she uses a wide range of strategies to trigger critical looking at images and the creation of students' own language. Her scheme features two kinds of approaches, whole class and individually, and these are developed by a scaffolded learning model including diverse imagery.

A scaffolded learning model to incorporate thinking at year 13

Yolande clarified that including thinking as a key competency at year 13 through a scaffolded learning model is grounded in its previous introduction at year 9. She explained that it works as a reflective process that is progressively developed and established as a way of thinking using images and is gradually examined from a simple to a more complex mode over time. For Yolande, the use of this system through years 9-13 and within each year assists students to develop from an external motivation to an internal drive to think. As a result, students gradually acquire consciousness about their own thinking.

Including diverse imagery: Visual culture through discussions

Yolande's approach is to introduce visual culture through discussions from year 9 and is at the core of her practice through all senior years, where students debate around "how the visual arts sort of fit in their life... not just as producers of visual arts, but as readers and receivers of visual culture that is constantly changing". During her classes Yolande discusses the meaning of a wide range of visual manifestations that belong to students' everyday lives, to show them how their reading of these images determines their final meaning. She highlighted that, as most of what teenagers are exposed to is image-based, "it is really important that they can navigate their way out in the world, especially with things that are mediated by the screen". She therefore includes visual culture through diverse ways as part of her year 13 programme and explained that this is unavoidable because much contemporary art is underpinned by popular imagery. She affirmed that, "I often bring very contemporary material into the classroom, again to try to blow their minds, to make little gaps and spaces in their minds for new ways of working to come in".

Reading images through layers: Initial contact with images

Yolande explained that to guide students' initial contact with images at year 13 she uses a scheme of layers. This works as a transition, where firstly she engages the whole class in looking at an image that she selected and then, later, students select their own images for their individual work. First, the class discusses in pairs their initial impression of an image, including various concepts that are explained. This system has three layers which help students to increase their understanding through stages. These are explained through a diagram [Figure 2]:

So, here is a quick look... what meaning are they deriving from it, what are they knowing about it by looking at it for 30 seconds? So, it is a 'glance'. Here, this is looking carefully where they have maybe 4 minutes, again looking at it with a partner and it would be projected big, so they are not just looking at a tiny little version...and they would have a paper copy in front of them. And now their look is careful, so there is scrutinizing, they are looking to see what they did not see before.

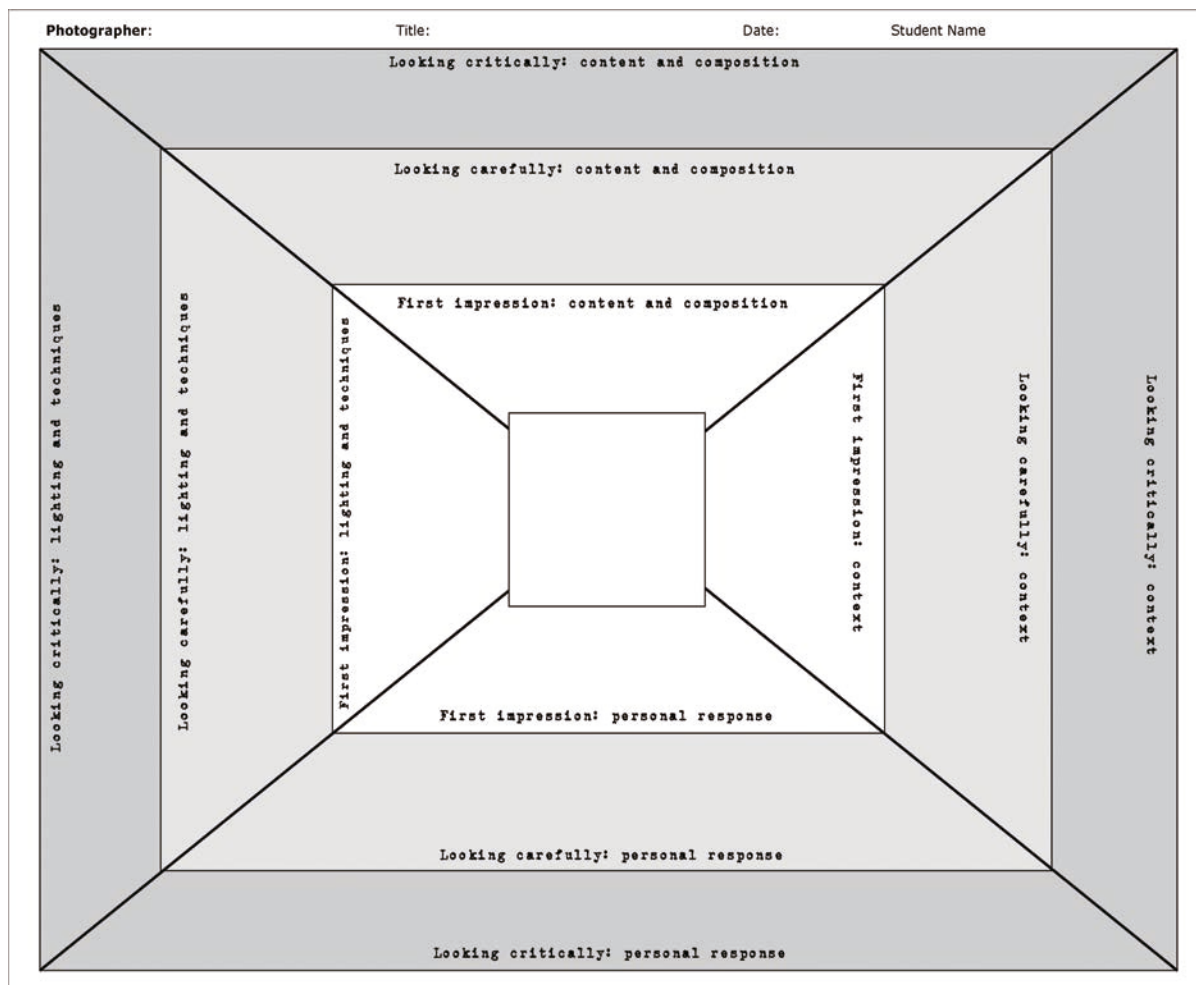


Figure 2. Yolande's diagram for capturing layers of meaning about an image

Yolande told me that once students are seeing what they did not perceive previously they start thinking critically, which demands researching to get an "informed feeling". This strategy not only guides the reading of an image but also helps students to move on from the first impression. It encourages and shows them that a deeper investigation of an image aids in building its final meaning and expands their critical understanding.

Guiding students' critical selection of images through a selected library

To guide students' selection of images Yolande offers students a library in the school Intranet which contains numerous folders of photographers' works. These are classified by origin and approach. Before commencing work for Achievement Standard 3.1, students are asked to explore and select images they like, after which they print their selected images on one page. Later, each student mounts the sheet on the wall. Yolande explained that:

This gives me an insight into that student. Then we can begin to look at what these students want to look at in photography as a mirror of themselves or as a window into the world. Or both! So, a huge library, but selected, because if they go onto the net they would be there all the day... and they do, but only once they have done some primary selection.



Figure 3. Yolande's wall display of selected images for motivation

Creating confidence in the unknown land of analysing images

Yolande said that it can be hard for students to start analysing images because it is like an unknown land for them. She tries to create a safe class environment in which students can “feel comfortable about not knowing”. To do that, she puts herself in the position of not knowing everything and is open to learning from students in a reciprocal way:

I try to create a culture in the classroom where the sort of mistakes that you make here are benign mistakes.... So, I teach very much from both places, of knowing and not knowing. I like not knowing, I like, hopefully, modelling the idea of being curious and being open.

Multiple approaches to encourage thinking through researching

To encourage critical investigation of the selected images and artists Yolande takes a multiple approach using strategies such as discussions, templates and prompt questions which motivate the progressive development of students' work by stages. Discussions are developed according to students' selection as individual dialogues. If some students are investigating similar subjects they might work together for a while in small groups to discuss what they have discovered:

I do keep coming back to looking at the scaffolded learning model.... It's a multiple approach; the assignment brief is scaffolded in tasks, initially that describe, then they'll explain, then analysing and evaluating. So, everything builds from the simplest approach.

Yolande explained that to help students understand the impact of photography on the “changing nature of images” she briefly includes discussions about its influence on other types of art making and languages. However, this strategy is only continued for some students because most of them are looking to contemporary practices. Another tool used to unpack images is through templates. Here, Yolande clarifies the concepts from the Achievement Standard, including the skills that students are expected to evidence through their researching. This instrument works as a structure, whereby students select six images from three different photographers and then compare and contrast those artists to find distinctions and correspondences:

This task becomes a stepping-stone to them. They take the various photographers that they are comparing and write some broad general statements that talk about the things that are not just similar and different, but the way in which things are linked between those photographers.

She explained that the template helps students to develop their research by stages; the idea is that this new knowledge begins to underpin their own art making. Yolande provides another resource with ‘prompt questions’ to aid students’ to modularise and organize their assignment for Achievement Standard 3.1 into different sections. She also shows them that this task needs to be unpacked in a specific way to meet the Achievement Standard.

Showing thinking as on-going cycles for Achievement Standard 3.2

To help students understand ‘drawing as a thinking tool’, which is at the core of Achievement Standard 3.2, Yolande provides an animated diagram [Figure 4] that shows the reflective process as on-going cycles of ‘research - drawing – production’.

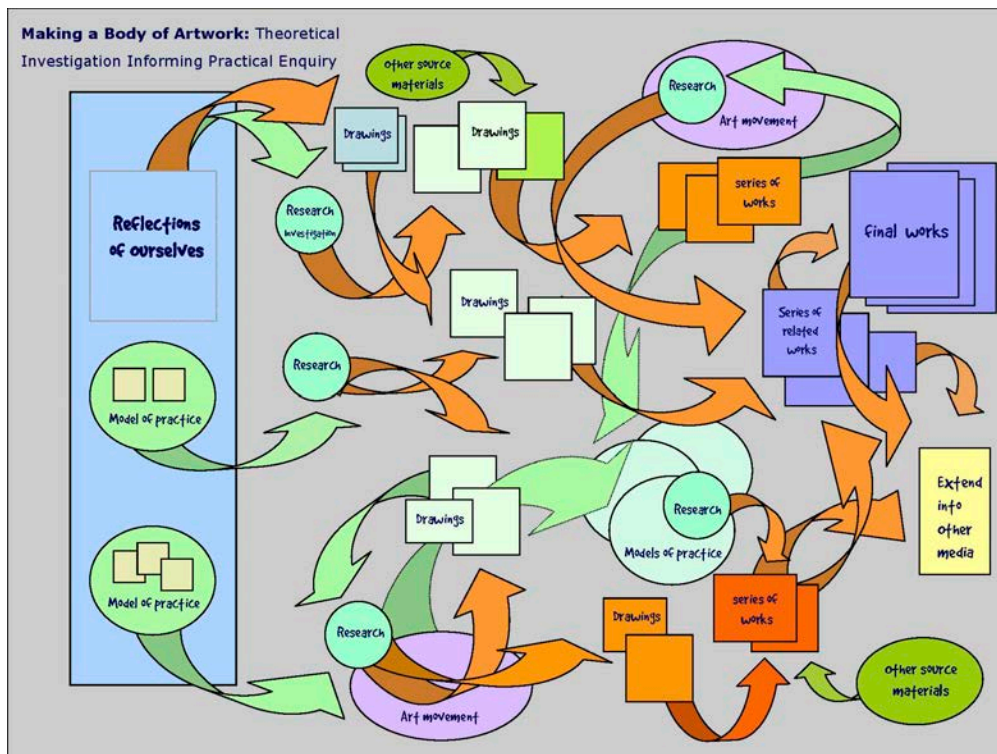


Figure 4. Final image of Yolande’s digitally animated diagram

By this stage, having chosen a theme and their artist models, students begin drawing and producing their own art works, but they can return to research as they need and then continue drawing and producing again. Yolande discusses with her students how this stage may also demand a return to initial queries around photography:

Where photography came from, its start? Where it is now? this underpins their personal production, to actually situating their image-making in this much broader context. We also look at the future, where it is going? What are the implications of that for the media? So, I show their path for art making.

Avoiding clichés: Expanding students' understanding through diverse strategies

Yolande discusses strategies with her students on how to avoid clichés. One is to look at how photographers have used their history to demonstrate that their production is linked to context. She also discusses *Flickr* because “for most of the kids, the photographs that they love are made by their peers in their own Facebook”. Her aim, however, is to encourage students to appreciate images that transcend their period. Another strategy used to avoid clichés is based in a little mantra that Yolande explains to her students:

No barbed wire, no Barbie dolls, no cling wrap... no symmetries because those are the kind of things that they are drawn to and I mean, they are kids, you can work with that, but... why? Is that enough reason? Can you make good photographs of that? Is that proposition rich enough?

A further strategy Yolande applies to encourage students to move beyond the *cliché* is based on ‘frames’, an activity which precedes students’ image selection. She explains that artists can work within four broad frames: structural, cultural, subjective and postmodern, and that sometimes these overlap. She ‘unpacks’ each of these concepts with the class in order to introduce them to “established practices, new words and new ways of thinking”. Her aim is to assist students to think of their own making within one of those frames, pointing to a purpose.

Overnight tasks to show different thinking

At the beginning of their year 13 photography course, Yolande sets students some overnight tasks to show them different kinds of thinking. Initially, students are asked to photograph the same object (e.g. an apple) “without any rules”. Next, Yolande presents all their photographs to the class for discussion. Because the images employed different approaches, students debate how the same theme was developed in diverse ways. Yolande also demonstrates to students how some images can be ‘improved’ in order to communicate ideas:

This was her image, that’s my cropping of that and then we would have a conversation about what is the difference. So, that’s to come back to the critical thinking and *cliché*... getting to understand that just because they are recording an image of something they like or find interesting doesn’t mean it is a good photograph. It comes back to the photograph as a form of communication.

For another overnight task Yolande asks students to locate and bring a photograph around a given concept. She adds an image made by her, which is a visual pun around that idea. In this way, students are challenged:

This is all about how to expand their understanding. So, multiple readings: the idea of an image being able to have a range of different imagery in it. And if it does, that imagery individually carries information and the combination of imagery carries information too.

Unpacking established practices to guide a critical selection of techniques for Achievement Standard 3.2

Yolande encourages her students to ‘unpack’ established practices to examine how artists use technology as a way to guide their application in their own drawing. In this way, students are not using techniques in isolation, but thinking about the technical selections of their artist references. Yolande explains to students that their chosen technique should match what they want to communicate; that this is not an unsystematic decision because everything has to be justified.

Using the assignment brief to critically organize, generate, analyse and clarify ideas for Achievement Standard 3.2

The assignment brief is used to illustrate that students work is to be progressively developed. Initial dialogues occur in which students can debate with their peers to bring light to their next step:

They critique their own work to look at how they might develop that move to go forward in a variety of ways. And then, they will shoot again, so, at that stage they would look at: What am I really wanting to communicate? They analyse the different ways in which they’ve been working in terms of ideas and corresponding method. Then, they may be narrowing it down, making choices and moving that forward.

Mapping a critical thinking journey through diverse strategies for Achievement Standard 3.3

To help students understand a ‘thinking journey’ Yolande uses strategies such as diagrams, discussions and examples. This includes the animated diagram [Figure 4], which represents their year as “cycles of reflective production”. Yolande explains that the journey is not a linear concept but there needs to be a starting point as a visual proposal:

I talk about how it is presented as a beginning, middle, and end, but it is not constructed in that way... It’s produced, actually, in a totally different order, later decided on in order to meet their criteria.

Yolande recommended that students keep the journey open-ended, explaining that it is a process of tiny steps; that students will be at a stage where they can predict their next movement, but the journey is not about a conclusion. This is so that students can feel comfortable around this uncertain process, “but being curious and willing to come to know”. She discusses how the journey allows students to renegotiate their way through any stage by multiple possibilities:

The cycle is also this idea of taking multiple journeys at once.... you select your subject matter, you have a starting point, that hopefully will allow you to take a number of related journeys in your picture making, informed by practice. And then, what you do is to weave all that together. And in that ‘weaving together’ of ideas, methods, it is your own imagination that engages in a cycle of reflective or critical and creative thinking that allows new and innovative work to happen...

Yolande regularly offers examples of previous students’ portfolios, which are mounted on the classroom walls, as well as models provided by the government. She uses these to frame questions:

Well, look at this folio! It started with this... he went in this way, but what else could have been done with it? How else could this starting point have moved forward?

To help students maintain cohesive thinking about their journey Yolande shows series of projects by photographers, in which she discusses the links those artists have made between their works. This is conducted as a whole class activity, then individually or with small groups so “they can kind of co-critique each other’s work in that context”. However, Yolande reiterated that the practice of linking ideas and techniques is something that has been supported throughout the year by diverse strategies.

Interview with the year 13 student participant Vena-Rose and her selected art works

Vena-Rose studies both photography and design with Yolande. She thinks that the concept she previously held about images has changed since she began photography because these classes have underpinned her understanding of the visual and its underlying meaning. Vena-Rose described this experience as a useful tool that has allowed her to “perceive more things in an image”. This knowledge has supported her critical looking at images, within her selected theme of architecture, giving her a wider perspective to analyse them and go into detail to find what is really ‘in’ a picture.

Researching for Achievement Standard 3.1

Vena-Rose told me that researching a photograph, and who made it, has revealed unexpected information. She described how her first impression of a particular image changed through investigating it:

This is a bridge going over a river and behind there is a boat. Like I didn’t know that before, but when I researched it, I found out...and its quite exciting! And this clock tower, no one is supposed to go in there. So, the photographer here actually took the risk to see what other people can’t see.

When she explained her researching process for Achievement Standard 3.1, Vena-Rose said that studying diverse artist models had helped her to find relationships between their approaches and to develop a critical looking at images. Once she understood the idea of exploring architecture through images she started to look at buildings in a critical way, which supported her artists’ selection. Vena-Rose was especially concerned about a viewpoint “from an interior’s space to the exterior” and this guided her choice through the Internet, where she found some photographers whose work matched with her searching. Later, exploring bodies of works by these artists, she realized that they have similarities and differences as well. But their main connections inspired her own ideas and helped underpin her own art making:

Well they are kind of helping me to develop my project further... they are giving me more ideas and the more I play around with images, look at it and then, I see some aspects of the image that I haven’t seen, it helps me to develop into my assignments.



Figure 5. Vena-Rose's proof sheet of initial architectural images

Drawing for Achievement Standard 3.2

When talking about her drawing process for Achievement Standard 3.2, Vena-Rose explained that it really helped her to critically look at how her artist references used principles like line, shape and texture. She stressed that this had encouraged her writing as well as her drawing. Her media selection was based in the knowledge acquired about photography through researching, and from photography classes. This made her feel confident about choosing particular techniques. From her investigation Vena-Rose decided to mix the examined techniques to communicate further meaning in her drawing studies for photography. In relation to her technical experimentations, she considered the hydro darkroom and digital postproduction of images to be significant processes for her learning because they allowed her to mix ideas and improve images.



Figure 6. Vena-Rose's early experimentation with architectural images

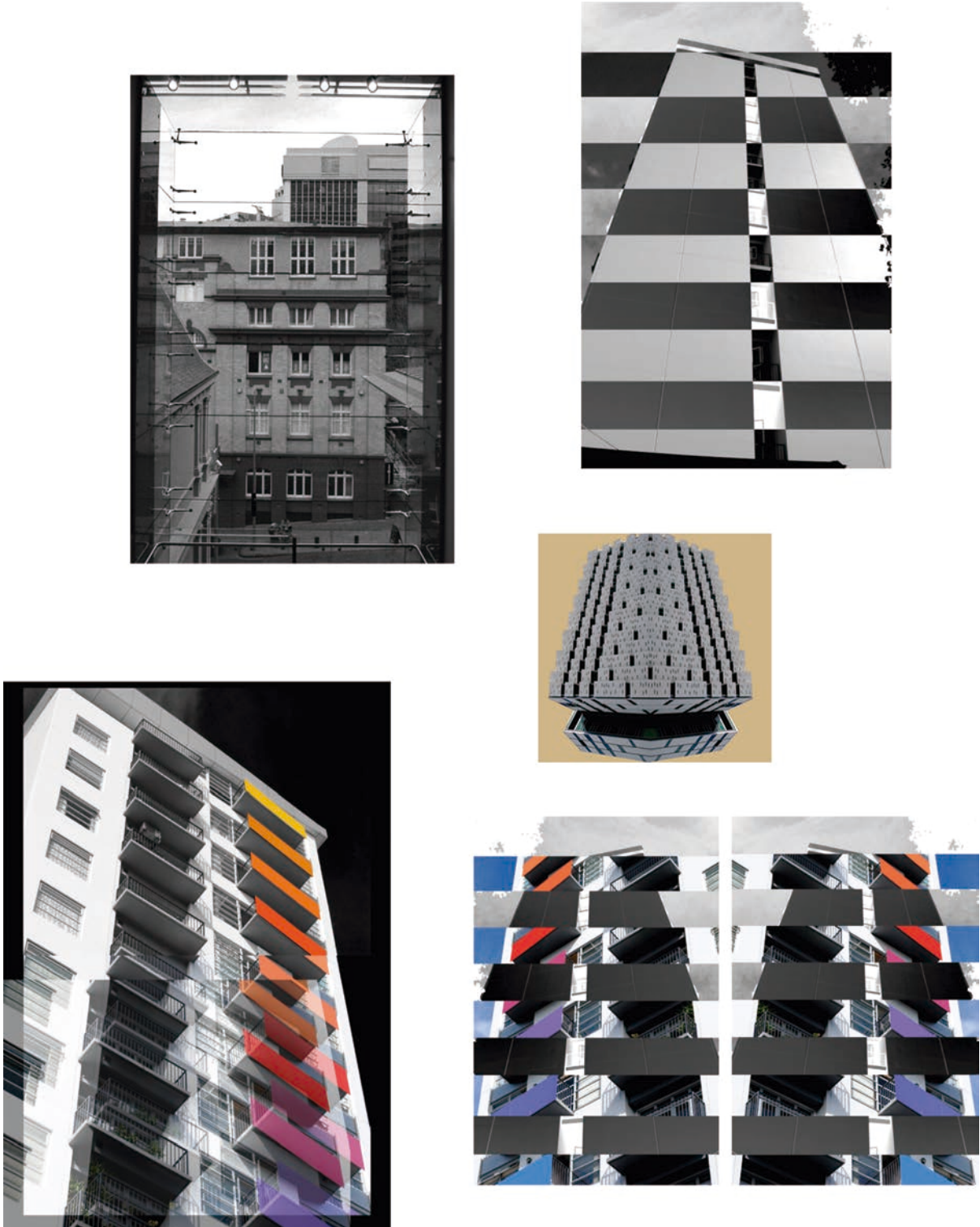


Figure 7. Vena-Rose's drawing of architectural images applying the influence of artist models

Producing art work for Achievement Standard 3.3

For producing art work for Achievement Standard 3.3, Vena-Rose is currently thinking around the strategy for her next step. Although she was unsure about how her folio was going to end, the idea of flexibility that is offered in the journey was valued as “a permission” to vary her thoughts through time.

I might change my mind a little bit throughout my journey. So, I'm hopefully excited...yes! I'm a little bit shy at times, but I'm confident, yes... The 'journey' has a lot of different ways and you can take one path and it could you lead into any other path through your 'journey'... and I wouldn't say that has actually a starting point or ending point, the 'journey' is to just keep going, it's like it's never ending...

In relation to her art works based on the artist models, Vena-Rose considered it a fun experience and she showed me one of her black and white photographs, which was digitally manipulated later, and how it was connected with two different images by one of her artist references, Andre Kertesz:

I like this one here because how the glass was used and it has lines crossing it... here I'm looking to an older building and this has been used in the foreground because this is how the other artist has been used it ... in the clock tower.

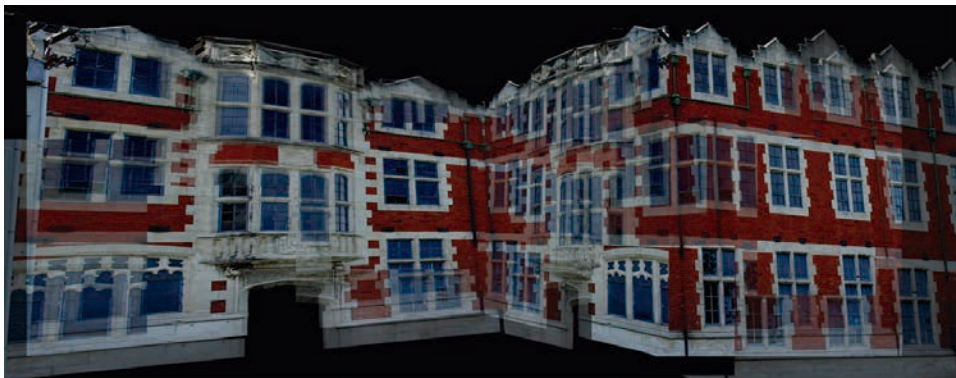


Figure 8. Vena-Rose's production of final images applying the influence of diverse artist models

Observation of Yolande’s practice: Visual resources and discussions

Yolande uses two approaches at year 13, with the whole class and individually. The data collection therefore included two observations to understand her strategies in each.

First Observation of Yolande’s strategies: Whole class approach

The first observation of Yolande’s practice was framed within a whole class approach during which she presented and discussed the management of students’ folio production. During this class she drew a table on the board to help students’ think about how to map out their folio. Through this resource Yolande synthesised the students’ process, narrowing it down to their current moment where they have completed some research and photographic drawing to create a series of images. She reminded students of the purpose of going forwards: “The research was to explore, but theoretically, but also through your practice, how you can take your particular theme and expand that”. She revisited the concept of the thinking journey through a diagram on the board [Figure 9].

What the production is going to be is really reflective cycles. So, you might have a starting point here and a starting point here that are quite different in terms of subject matter, but they overlap. You are going to be involved in reflective cycles of research, because you continue doing that, even though it is informal.

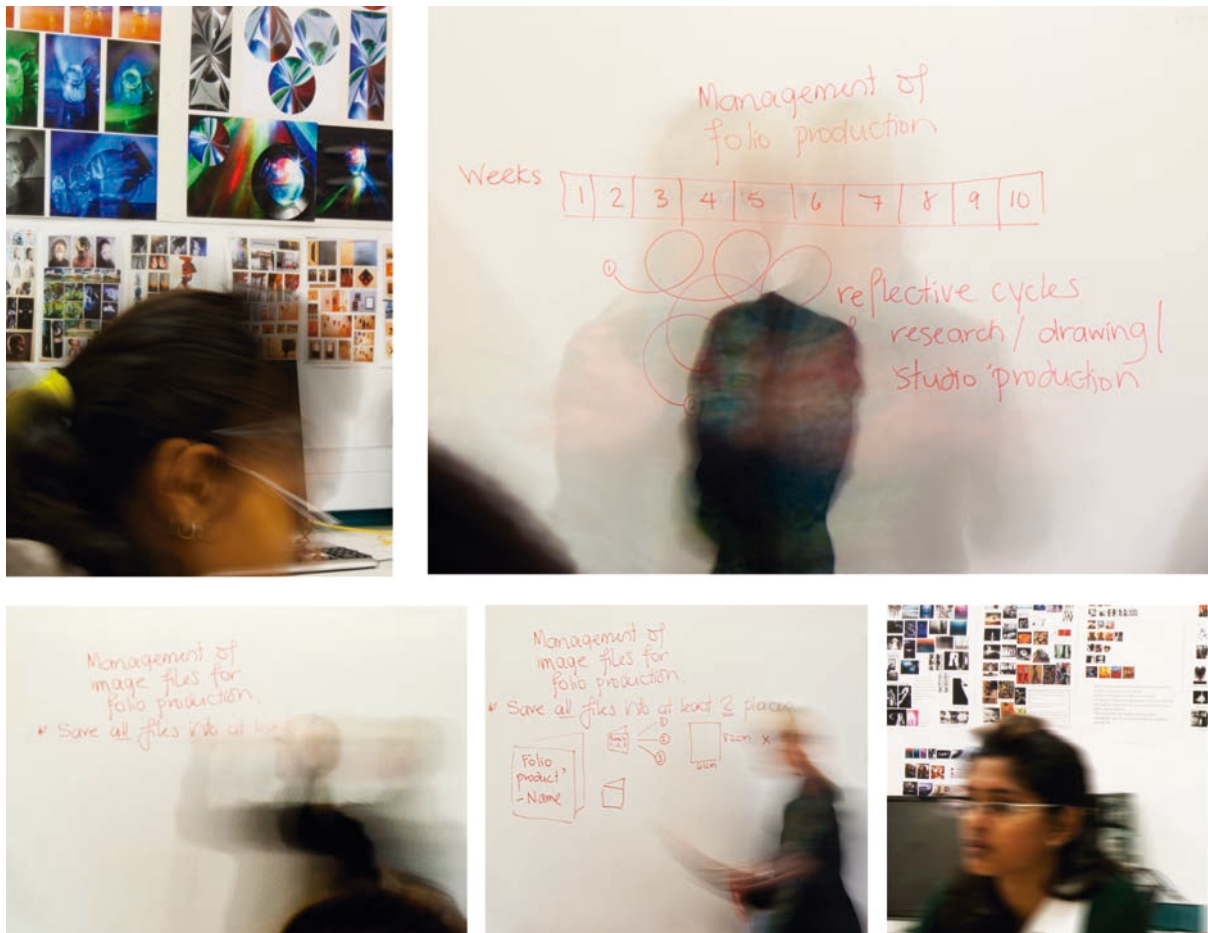


Figure 9. Observation of Yolande reminding students about the concept of the 'thinking' journey

Second Observation of Yolande's strategies: Individual dialogue

This observation was framed in the art studio and consisted of a conversation between Yolande and Vena-Rose. The student had come to a point where she was not sure about how to move forward within her producing process for Achievement Standard 3.3. Yolande proposed a number of new artists to look at in order to open Vena-Rose's mind to new possibilities. These artists were connected with her approach, but had developed different paths. Through images of these artist models, Yolande introduced the concept of 'stage' in architecture, which expanded the issue that Vena-Rose was working around. This conversation helped to develop her thinking about the urban space. Yolande suggested that "These are potential photographers to look at to inspire you, but they really need to be fully interpreted into your own work".



Figure 10. Observation of Yolande extending Vena-Rose's mind to new possibilities

During this observation Yolande and Vena-Rose used the student's previous series of work to evaluate the way in which she had been looking at architecture until this point. The student took notes and sketched visual ideas in a workbook. Yolande interpreted some of Vena-Rose's decisions through new concepts and asked questions about her choices: "what do you think happens to the reading of that image?" The discussion revealed a new understanding for the student and Yolande clarified to her that these operations could be diversified: "You come up to this and you could branch it out into different ways".

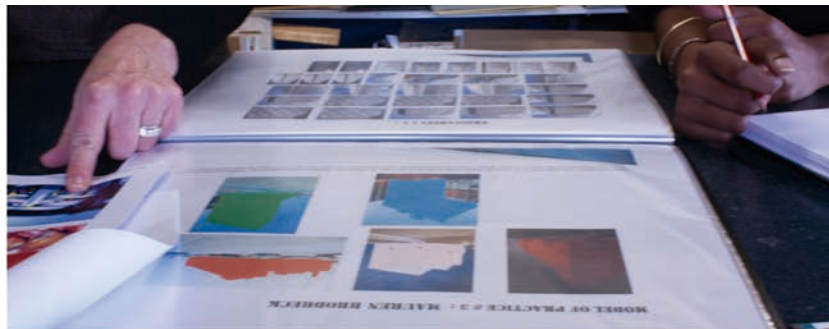


Figure 11. Vena-Rose making visual diagrams from the discussion

5.3 School B: The high-decile single-sex girls' school.

Interview with visual arts teacher Shannon: Giving the power to thinking

This interview took place in Shannon's office. It was framed by the interview questions [see Appendix B1] and expanded by some supporting material that she uses to guide students' critical thinking through images in her printmaking and painting classes.

Shannon affirmed that her approach works as a series of steps through which students' thinking is gradually encouraged through the years. As she said, "We are building on a foundation that is accumulative and the scheme shows that systematic evolution from year 8 all the way through". Shannon explained that at year 13 her general system to develop critical thinking through images is based on two fundamental features that can result in diverse strategies. The first feature is the use of the 'artist model' as a starting point to encourage critical thinking around how artists develop their ideas. The other is an individual teaching approach which was considered important at every year level. Shannon told me that to make this possible she attempts to develop flexible units. She stressed that the artist model is not about 'reproducing', but involved generating an original project underpinned by artists' ideas and procedures. The challenge is then to encourage students to start thinking about their own ideas. Mainly through dialogue with her students, Shannon tries to find what they want to know and what subject matter they are concerned about. If her students can recognize that, they can start working from there.

Brainstorming and individual conversations to get started

Shannon encourages students first of all to brainstorm around their subject matter of interest, which helps them to become aware about their own thinking and what they would like to do. Students are asked to document their thinking through writing and making. Once they have participated in some brainstorming, she talks individually with each student where she suggests some artists or books to extend their ideas. She highlighted that students have to pick what make sense for them:

Then I go back to them to see how possible it is that they could use those ideas in their own work.... and then I say, OK, how can we 'unpick' these to fit what you want to say? That unpick is a very important part of my precious stone because I give them that as one of the very first assignments. Find a work, unpick its components, don't copy it! But make a work that deals with the same issues, but in your own way.

Getting started through freedom: Guiding a critical selection of artists' models

Shannon explained that students' selection of artists should reflect a personal interest in order to appreciate the work of studying them. Once they choose, she discusses with students how that can be developed. Shannon highlighted the importance of getting students started through freedom in order to progressively encourage students' autonomy to narrow their way. She affirmed that it is a "winning process"; at the beginning they might need more of her support and then, gradually, they will gain confidence and independence. However, she explained that if a student had not developed an autonomous thinking by Achievement Standard 3.2, she individually approaches that student:

I start by saying to them: No, you tell me what you think, you tell me what you want to do and then we'll see if we can find some strategies, so that you can do what you want to do. So, ...a whole series of conversations, where I question to try to find a point where we can start pinning and putting pins on the map and then starts building the profile.

Unpicking the standard to guide students' thinking processes

Shannon begins by presenting and analysing with students each concept of the Achievement Standard to help them understanding its objectives and what is expected from them. She then guides students in "how to respond to it individually" through a series of stages. In this unpacking, the first step that students have to solve is to select the issue that they are going to be looking at:

You can't sort of start dealing with the visual language until you actually identify the issue, you can't deal with those things until you identify the style of work, the kind of work you want to make and so, it's kind of all at once and trying to separate that art and then taking the first step... where to begin.

In addition, Shannon shows her students numerous written and visual examples that gained differing levels of achievement. She emphasises and explains the examples which achieved 'Excellence' because her aim is to encourage that level of performance from all her students.

Tracing back to the 'tree'

To support students' understanding of current or modern art practices Shannon encourages them to think about the contributions of artists of the late 19th and early 20th centuries and how they made possible new approaches. To her, it is important for students to notice these links with the past to begin to understand their own art making process as a "cause and effect". She explains this through the allegory of the 'tree':

I often talk about the tree and how this branch led to this twig, then led to this twig, then to this twig... and you need to actually trace all that back to the precedents to find out where these things began... and at 3.1 I expect you to see those links and that is some of the work that I do too with the students, is helping them find them.... to where these ideas came from. Because I say to them nobody produces art in isolation.

Mapping out a thinking journey through a gradual scheme of assignments

The way in which Shannon writes her assignments guides students' thinking through a progressive journey, as a series of steps, through which she gradually develops and sharpens their ideas. When students commence Achievement Standard 3.1, she uses an assignment called *Beginning a journey*. This explains what the research is about and how to identify different subject matter through a broad categorised list, which is going to support students' art making:

You will need to find a starting point by identifying a subject matter and collect visual resources as part of your research study. So, from the category system, select a theme and begin to clarify the pictorial elements. Focus on producing sequences of work that investigates ideas that are rising from the research and developing and extend a response to the previous work.

Within each task the standard is unpicked and illustrated by examples of students' responses to a particular artist.

Documenting thinking: Guiding sheets to support critical research

Shannon offers numerous worksheets and templates with crucial questions to support students to document their thinking throughout the whole process. These guides are kept as broad as possible in order to not limit students' thinking to just answering questions, but to use the queries to guide their looking. The worksheets also support students "to get the evidence required, to achieve excellence at 3.1". An important feature of the worksheets is that each contains written and visual examples.

In one of her writing strategies, Shannon encourages students' to write a proposal. She requests them to recognise key problems about the art practice, which is supported by a guiding sheet. This offers some key questions to guide students' researching process, such as "how does the artist portray meaning?" Students then proceed further and establish a statement in relation to the question. Shannon explained that students have an obligation to document their thinking processes in a workbook because this is a requirement for those studying scholarship (NCEA Level 4). She also believes that it provides fundamental support to create a critical statement around art. Consequently, all her students are enrolled in scholarship in addition to NCEA Level 3. Another guiding sheet is titled '*What, why, and how?*' This document helps students to arrange their findings under those key words and to identify what is essential to discover in a critical analysis of images:

What is the meaning of the work?... Then looking at the visual language and I do have a number of guides about what kind of questions to ask about the visual language. Like how does the artist use colour? Is that used to portray emotion? Is that used formally or structurally? I have prompt questions to look at all those issues. I have another work sheet about what are pictorial issues, with examples.

Shannon added that to encourage a deep investigation of the artists' approaches she asks students to create a timeline. The aim is to see how their selected artists are connected in history with at least ten other artists and how each artist's ideas have developed. Further analysis follows about the way four of those artists and two from that group are compared and contrasted. Thus, students are tracing back to find connections which are going to support their own artistic ideas.

A seamless transition from Achievement Standards 3.1 - 3.3: Looking at connections

Shannon explained that she links 3.1 and 3.2 through practical work. She shows students what evidence is needed for these two Standards, so that 3.3 will give the final seal to those links:

We start looking at the connections we can make between the key pieces of work. Sometimes the student would have the board layout changed as many as 20 to 30 times... Where we are trying to find the best reading of the work... and then the discussions centre around what works they need to do to fill the gaps. So, it's a very organic process.

Discouraging being seduced by clichés: Avoiding the risk of not achieving

To discourage students being seduced by clichés Shannon clarifies the concept of cliché. She stresses that being seduced by clichés heightens the risk of not achieving. However, Shannon also offers the possibility to look critically at clichés, exploring and discussing how artists have placed them in the art setting:

I let them have the choice, if they really want to continue with what they are doing. I'm not one to say no to them. But I tell them that there's the risk because they have to own what they do and if it's a bad decision, it's their decision. But I do guide them, I do discuss with them and I do express an opinion about it, but at the end of the day, I let them choose.

Promoting the use of new technologies as a thinking tool

Shannon promotes the use of new technologies by inviting students to explore its possibilities under the question: "What happens if?" She emphasised that one of her main strategies to help students to advance in their drawing and producing is based on the use of digital technologies, where they find further options and a critical perspective around their approaches.

If the girls are working with a piece of work that becomes too precious on the sketch you must care to take a risk. We will use technology, we will copy that work and we will do the risk taking in the copy paste. And if it doesn't work, there is nothing lost, but if it works, then, we'll take a step forward.

Individual discussions and diagrams: Evaluating techniques and synthesising ideas for Achievement Standards 3.2 - 3.3

Shannon said that the concept of syntheses is very hard to understand for students so she has individual conversations with them where this idea is discussed and unpicked in relation to their personal programme of work. She highlights the importance of producing a series of work, which provides greater possibilities to assess techniques and ideas to make further decisions into a coherent whole:

I talk about working in a series... responding to each work as it's made, identifying streams on work witnessed, being very careful not to repeat what they are doing, but also being very careful to not keep going around in circles. I draw diagrams of how an idea can actually have three different branches and that it is OK to follow all three and then select from those.



Figure 12. Shannon and Bella evaluating the student's series of images and possibilities

Unfolding a visual story through diverse strategies

Different strategies are used by Shannon to encourage students to think of their process as a story that is going to be unfolded, but she prefers to use the word 'narrative' instead of story. Initially, she discusses with students how their process is a series of actions that need to reveal a narrative around the visual language and a dialogue between ideas. She warns students to not dwell excessively on telling a story because their journey should provide evidence of a language issue, where they reflect about the visual. This is followed by discussions:

Identifying what issues they are going to address pictorially, what stylistic references they are going to make. I recommend a minimum of 5 artists to reference at level 3, an absolute minimum and the more the better because the more they have they are less likely to be linear in their narrative.

Another strategy to help students understand that the journey is not a linear process is a diagram [Figure 13] that shows that some ideas might not flourish; that it is not about one sole path growing, but collections of thoughts where just some of them are going to be developed and other ideas that might not work previously can be reconsidered. Shannon has strategies to assist students to look critically at their journey:

Some of the tricks that we use is closing the middle board and looking at the work on the last board and looking at the work on the first board and saying: Is there sufficient journey? If you say that you are coming in circles and repeating what is in the first board, then you probably are not going to get the excellence because ... you haven't shown that extra step.



Figure 13. Shannon's diagram to guide students' understanding of the idea of a 'thinking' journey

There is a focus on individual conversations during which Shannon explains to students that their art references are just a support for their journey, but not an endpoint, and that it is useful to visualise an end, but to be flexible along the way. She believes it is essential to have many conversations with them about how to keep a cohesive story and to write down what they discovered from that dialogue:

I say: OK, go and write it down, what's fresh in your mind and where all these things are spinning in, capture them! And put them on paper, so that you don't loose the thread, so, you don't loose the track of it.

Interview with the year 13 student participant Bella and her selected art works

Bella is enrolled in painting and printmaking with Shannon. She believes that her visual arts classes have been an important font of knowledge and have offered her a deep understanding into the visual through diverse ways. Bella explained that images are very important and are “an eloquent medium” to depict her ideas. This student showed a deep awareness around how the visual affects young people and declared herself a frequent user of websites that offer images to be explored and find inspiration from. Bella was also conscious of the active role of the viewer in reading images and she likes the idea that images are open-ended.

Thinking through researching for Achievement Standard 3.1

In the framework of her researching process, Bella highlighted the importance of the templates given by her teacher as useful tools that guided her investigation and supported the development of her learning skills. The most relevant support for her thinking around images was when Shannon gave her a book about symbolism. This changed her view around the purpose of art to communicate ideas and created an influence for her own making. Bella explained that after Shannon suggested some artists to examine she traced them back to discover how other artists inspired them, and how she could recognise evidence of references in their works. For her, a key experience that changed her thinking was the concept of ‘vanitas’ in which she discovered a foundation to ground her own work. In addition, Bella discovered some artists who inspired her in how to use media and techniques to evoke ideas: “Those artists manipulate dark tones to get an effect, which is what I’m really interested in, to portray the idea of darkness”.



Figure 14. Bella's initial image around the concept of darkness

Drawing for Achievement Standard 3.2

Bella emphasised that the idea of 'vanitas' worked as a key to find her artist models. This concept was also connected with her subject matter, the exploitation of animals. She explained how she chose some symbols to portray her concern around this issue during her drawing processes:

I was doing 'vanitas' and the ephemeral of the briefness... but also about its uses as morals... Like how we look at fashion, but there's also like a better hope for us to find better morals, ... about how we kill animals.... I have rats and a lot of animals that are really ugly looking, especially in my prints because I use it ... as a symbol of humanity and how morals are ugly in a way, the way that we sort of inflate suffering of animals.

Bella explained that the selection of the most effective media depended on what she purposefully wants to produce and portray in each image:

I would probably apply methods like etching and aquatint with more '*chiaroscuro*'... But it's sort of like manipulating of dark and light to make a scene like I'm portraying an idea, rather than trying to paint a picture that's really pretty to look at.



Figure 15. Bella's drawing applying the influence of diverse artist models for printmaking

She described what she wanted to portray in one of her pictures through the use of visual symbols and how this connected with her artist references:

This one is about... a conflict because she's got a cage around her head... like very internal... And the fact that I... blind her was from Seraphine Pick's *Table hands* or *Table links*, something...and makes the viewer think more psychologically about the subject. Like you are going into her imagination and I think that I took that from Francisco Goya, that when you use black and white, it's it's showing an idea...



Figure 16. Bella's drawing applying the influence of different artist models for painting

Producing art works for Achievement Standard 3.3

Bella said she felt very comfortable about not knowing how her story was going to unfold. She trusts in the idea of keeping her thinking journey flexible to incorporate unpredicted ideas, recognising as well that there is a point where it is possible to imagine her next step:

I think it's important to look at the work that you have done and find aspects that you like and maybe magnify them more, or make it smaller in your next works and just play around through the portfolio.

Bella believed that one image can work as a starting point, but then the viewer has to interpret it. Thus, to strengthen the meaning of one image the presence of a series of images will be needed:

My subjects look kind of hidden... particularly in this series here...they are coming out of the darkness which is probably what I'm going to continue in the next board.

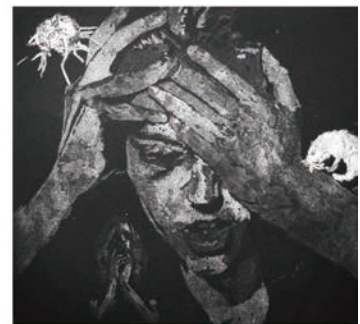
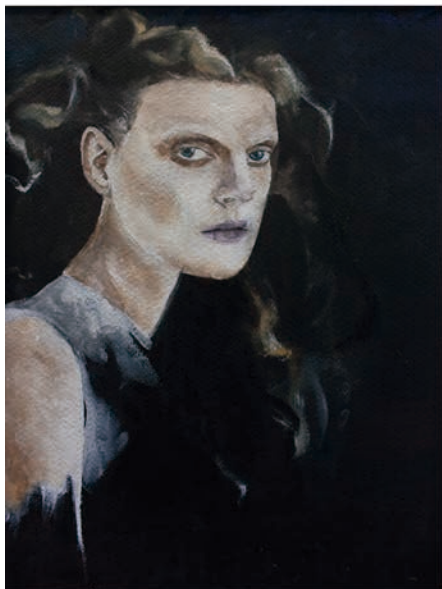


Figure 17. Bella's final production of images for printmaking and painting

Observation of Shannon's practice: Making connections through conversation

This observation was framed in the visual arts classroom during a conversation between Shannon and Bella when they discussed the student's next steps for her folio boards on printmaking and painting. Together, Shannon and Bella analysed the images positioned within the three boards, weighting their value and common elements and evaluating which gaps existed and what needed to be reinforced with new making. Shannon said that Bella's "thinking was beautifully established" and she encouraged her to notice that her ideas were implicit in several elements within the reading.



Figure 18. Observation of Shannon and Bella discussing the student's images and layouts

In the conversation about some disconnected images, Bella explained how she was planning to link them through visual symbols in new pictures. Shannon suggested the idea of working further with

elements already used in new works to make a connection between the key images. Bella agreed because she realized that the idea could intensify the issue that underpinned her initial making:

I like how it's kind of bringing... back... the fact that I'm working with the exploitation of animals in clothing, I like that...it's bringing that back.

Shannon also stressed how ideas could be emphasised by the placement of the pictures within the boards. Bella explained that she had several ideas in mind to make links and intensify ideas, but was unsure about it. Shannon recommended a strategy to clear her mind:

What I would do with these ones is actually put a piece of paper like some post-its and then just mark out what you want to do, how you are going to terminate what you are going to do around them to finish them off. What you are going to do there and then put that board to bed.



Figure 19. Bella experimenting with different layouts for the final portfolio

Following this discussion, Shannon and Bella stood on chairs to gain a more distant perspective of the layout. Looking down of the folio boards engendered further questions around possible decisions and Shannon advised her:

You don't need to decide now.... Layouts can happen over and over and over again... But at the moment I like the development because this is a very clear statement now.... Keep it flexible in your head in a way that you don't make impossible a move. Like I say, sometimes works can have different lives in so many different ways.



Figure 20. Bella and Shannon evaluating layouts and the creation of new images from a farther perspective



Figure 21. Possible layout for Bella's final portfolios

5.4 Summary

In the interviews with both teachers' it was evident that their approaches to developing thinking in visual arts was strongly supported by the curriculum and the NCEA Achievement Standards. Yolande and Shannon both stated that this aim is achieved by a foundation, which gradually encourages independent ideas through the years. They admitted to being attached to a student-centred mode, giving importance to conversations and individual programmes of work. Their strategies were complemented with numerous resources to aid students' processes by stages. Although, from the interviews and observations, some differences were noted in their strategies the similarities between these teachers was greater. Differences included the space given to visual culture, the integration of some group schemes, and the obligation to keep a journal through the whole year.

From the students' interviews, visual arts classes were identified as essential to develop critical thinking around images. Vena-Rose and Bella considered that the supporting material offered by their teachers were helpful tools to expand their understanding and that researching assisted to underpin thoughtful making. They affirmed that the flexibility of the course offered them a place to develop new thinking. While these students' understanding about how they develop thinking was similar, distinctions were acknowledged in their creation and which methodology was the most significant for their process. Each showed differing starting points to develop ideas, which triggered entirely different art works. The findings from this research, generated through the use of four data collection modes with the two art teachers and their year 13 art students, are critically discussed and evaluated in the next Chapter.

Chapter 6: EVALUATION AND CONCLUSIONS

6.1 Introduction

This research was driven by contemporary literature which suggests that the development of thinking skills in visual arts education is essential in an image-saturated era (Eisner, 2002; Duncum, 2010; Grushka, 2009). It was motivated by a concern that there is a technical focus in visual arts practices in Chile, my home country, where strategies are not considering reflective competencies as a fundamental aim. Although the Chilean curriculum mentions this competency as one of its learning objectives, it does not offer sufficient support to encourage reflection because a 'content-based' mode prevails. The theory underpinning my research question was that to foster analytical skills through images visual arts education should be organised around individual reasoning, rather than art-making skills (Charman & Ross, 2006; Duncum, 2010; Eisner, 2002; Freedman, 2003; Gude, 2007; Hardy, 2006; Hogan 2006).

As I started my data collection I was enlightened about the vision and objectives of *The New Zealand Curriculum* (MoE, 2007) which identifies 'thinking' as a Key Competency. Developing cognitive skills in secondary students is on teachers contingent encouraging them through approaches underpinned by a critical inquiry framework and a student-centred mode. These ideas were evident during my research in the two schools. The art teachers were clearly influenced by the curriculum philosophy and their approaches pointed to the development of reflective competencies. I also witnessed the application of their strategies in the classroom context and observed its successful achievement through students' thoughts and art works. My observations were verified by the interviews, during which the teachers' and students' opinions revealed deep awareness around the visual language. Although the selection of participants was limited to a very small sample of visual arts teachers and year 13 students in New Zealand secondary schools the impression I gained from my findings opens a critical discussion around diverse strategies to develop cognitive skills in visual arts.

6.2 Teachers' strategies to develop thinking

I found that the curriculum philosophy and the assessment structure were important factors that supported teachers' approaches to encourage thinking

Thinking skills, as described by the teachers, were at the core of their practices and were achieved through diverse strategies framed in the student-centred mode suggested by the curriculum. This aligns with the views of researchers who argue that the development of analytical capacities is essential to lifelong learning (Alter, 2011; Cottrell, 2005; Hogan, 2006; Román, 2005). The teachers' rationales, reflected in their approaches, pointed to progressively offering opportunities to develop thinking through all school years with the ultimate aim of producing 'active learners' (Eisner, 2002; Grushka, 2009; Gude, 2007; Hickman & Eglinton, 2009; Hogan, 2006; Lai, 2011). This description, coupled with the emphasis given to reflective competences, indicated that the teachers' methods

were grounded in *The New Zealand Curriculum* (MoE, 2007) and Achievement Standards for *The National Certificate of Educational Achievement* (NCEA). The teachers' documents, which revealed philosophical viewpoints on visual arts education, supported the development and assessment of students' ideas. The concepts contained within the NCEA Level 3 Achievement Standards were 'unpacked' for each level of achievement with examples, as guidelines, to trace a personal map of work. It has been strongly recommended that to motivate thinking, educational settings should provide a critical inquiry framework around individual reasoning (Alter, 2011; Gude, 2007; Hardy, 2006). It was evident that the influence of innovative standards, against which to assess student work, offered an analytical scaffold from which it was possible to apply diverse approaches to encourage thinking capacities, an openness to new understandings, and encouragement of student independence.

I found that individualised projects of work and discussions enabled students to critically think around images

The cognitive model adopted by the two teachers was evidenced through the motivation of individual projects of work and discussions. Visual arts classes were not 'content-based'. Instead, each student's interests determined a particular theme, technique and approach to study. The autonomy given to students to make decisions worked as a structure to develop a personal thinking journey and dialogue around it. This was grounded in the belief that a student-focused method is essential for promoting reflective skills about the visual, and that the exchange of ideas through discussions produces knowledge (Eisner, 2002; Grushka, 2005; Grushka, 2009; Gude, 2007; Hickman & Eglinton, 2009; Hogan, 2006; Lai, 2011). My observations revealed the flexibility of teachers' approaches which gradually assisted diverse programmes of work. A main advantage of this system was that students were passionately involved with their process because it was linked to a personal concern. This was reflected in their awareness and critical engagement with images.

I found that although the teachers' approaches differed their aims were similar

Overall, the teachers held the same philosophical view and despite some differences within their strategies these did not hinder the development of students' thinking. For instance, although both teachers fostered a student-centred mode, Yolande complemented her individual approach with a whole class scheme and some group dialogue. Shannon maintained a more individual style, where conversations were developed with each student. Although some authors strongly recommend an individual approach to engage student's subjectivity around specific concerns, they also suggest group debates (Hickman & Eglinton, 2009; Hogan, 2006). This differentiation between the teachers' methods did not impair students' thinking. In fact, from discussing ideas between peers, students gain multiple perspectives and their personal understandings are challenged (Alter, 2011; Grushka, 2009; Gude, 2007; Hickman & Eglinton, 2009; Hogan, 2006; Wilks, 2003).

Another distinction was the importance given to 'visual culture'. Although this is a key element of the curriculum, it was clearly stated only within Yolande's strategies where she incorporates it through diverse ways. Shannon, on the other hand, argued that her system only considers visual culture if it is relevant for an individual programme of work. However, she considered visual literacy an essential ability to assist students to write about visual ideas within a particular topic. For Shannon, "it's the

originality in the thinking and the way ideas are presented in a written form". This approach is coherent in relation to the premise of a student-centred mode which is not 'content-based'. If visual literacy is understood as the willingness to create consciousness around miscellaneous visual manifestations (Freedman & Sthur, 2004; Duncum, 2009; Grushka, 2005; Gude, 2007; Hamilton, 2008; Lampert, 2006), this was successfully achieved with both approaches, but in different ways.

A further distinction in their strategies lay in the fact that NCEA Level 4 scholarship was compulsory for all of Shannon's students, who keep a workbook around their thinking through the entire process. In contrast, Yolande encourages maintaining a journal but it is not obligatory. After the first research assignment only students who are studying for scholarship in addition to Level 3, or are highly inspired learners, continued using a journal. Charman and Ross (2006) suggest that this instrument helps students to analyse their own making. It was evident that when students maintained a writing document about their ideas throughout the process, this supported a deeper evaluation of their decisions because it allowed them to revisit thoughts, make connections, and reveal a thread. However, if this strategy is obligatory through the whole year it might contradict the purpose of gradually promoting autonomous thinkers (Alter, 2011; Eisner, 2002).

I found that the study and creation of images inspired students' thinking

The students both showed strong awareness about the importance of images which were identified by them as artefacts to portray ideas and meaning (Duxbury, 2008; Emmison & Smith, 2000; Leavy, 2009; Sturken & Cartwright, 2009). In addition, visual arts classes as described by the students provided essential support to think around the visual, with the emphasis given to interpretation and making (Eisner, 2002; Freedman, 2003; Gude, 2007). The personal guidance offered by their teachers through discussions and diverse resources meant that the students had a relevant and effective support system to expand their understandings on how to unpack the visual through a progressive critical inquiry framework (Alter, 2011; Charman & Ross, 2006; Pilkinton, 2003; Wilks, 2003). In addition, the researched artist models were acknowledged by the students as the base which underpinned their own making in a thoughtful way. The students also thought that the flexibility of the 'thinking journey' allowed them to develop an evaluative view around producing art works, and to make adjustments according to changes in their thinking processes. Their statements and art works showed that the critical reading of images through researching reflected insight into their own ideas in relation to the visual language. This, they said, supported their own projects and the acquisition of learning capacities.

I found that the concept of the thinking journey empowered students to show individual reasoning

The main difference between the two students' thinking lay in their starting point for developing ideas in entirely different projects of work. Correspondingly, they also differed in which methodology was the most significant for their process. This reflected each student's particular interests about images and underpinned distinct aspects on how to illustrate their 'thinking' through the visual language. On one hand, Vena-Rose began with an interest in the graphic characteristics of 'architecture', a topic which generated an 'objective' consideration of formal picture-making properties. On the other, Bella was

more concerned with the issue of 'animal exploitation'. This more emotive topic generated more 'subjective' thinking and producing. Other dissimilarities in their thinking through making were that Vena-Rose revealed ideas through photographing her subject matter from a figurative to a more abstract perspective, whereas Bella established a clear psychological discourse through symbols that portray powerful meaning. The differences between these two students showed the open-endedness of students' choice of 'story' in addressing the objectives of Achievement Standards 3.1-3.3 in NCEA Visual Arts. They illustrated the flexibility of approaches used by their teachers which is an essential feature of developing thinking as a lifelong learning skill (Alter, 2011; Cottrell, 2005; Hogan, 2006; Román, 2005). The main value of the students' differences lay in their production of unique and original bodies of work in which the visual was explored and individual thinking was established.

6.3 What conclusions have I drawn?

The ability of teachers to develop thinking skills in students through images was clearly supported by *The New Zealand Curriculum* philosophy and the NCEA assessment processes which offer a foundation and an evaluative tool to achieve this aim. The flexibility of these policies also provided considerable space for innovative and critical approaches by the teachers, which enabled their students to develop diverse ideas and meaningful creations. As a result the students demonstrated strong awareness around their thoughts, coupled with the capacities to evaluate, synthesise and communicate them through their writing and visual language. I have concluded that the application of any strategy to encourage analytical skills through images in visual arts education in secondary schools requires:

- The philosophical and pedagogical support from a flexible curriculum based in a cognitive model;
- A standards-based, not 'content-driven', assessment system;
- The development of thinking skills as a foundation through all years of schooling;
- Open-ended units designed around a student-centred mode which focuses on their personal interests;
- The inclusion of visual literacy and discussions to develop and produce individual thinking.

From this investigation, and my belief in the importance of encouraging active thinkers who are able to critically read the visual in an image-saturated era, it is evident that educational policies in Chile need to reevaluate their learning objectives and the way the curriculum is designed in the 21st century. As Gude (2007) argues:

The essential contribution that arts education can make to our students and to our communities is to teach skills and concepts while creating opportunities to investigate and represent one's experience, generating personal and shared meaning. Quality in art curriculum is thus rooted in belief in the transformative power of art and critical inquiry (Gude, 2007, p. 6).

The implementation of a visual arts curriculum must not be confined to content, but needs to consciously create a foundation from which students are enabled to study their own concerns through

diverse visual topics. Based on this research, I have come to the conclusion that to produce lifelong learners visual arts education should emphasise thinking skills. This small case study has provided evidence around issues that I have identified as empowering. Mostly, this lay in the teachers' strategies to develop students' thinking skills and the grounding theory behind them. The examined approaches aligned with the position of *The New Zealand Curriculum* (MoE, 2007) which offers a clear structure to encourage individual reasoning.

Although my research was confined to a small-scale project I believe that the findings obtained from it have offered me, as an international student, an enabling critical model to produce knowledge that I hope will be applied in Chilean educational programmes, as well as in secondary school visual arts education in my country.

6.4 How I interpreted the research as an a/r/tographer

A/r/tography privileges the role of the artist, teacher and researcher allowing the inclusion of images and text to approach deeper meanings involving the self and others (Irwin & de Cosson, 2004). Therefore, the merging of my three roles integrated my own voice, which clearly emerged within the evaluation of findings through the visual. The inclusion of pictures and my subjectivity was justified by the evocative power of images, which worked as means to represent my understandings and create meaning that can not be expressed by words (Springgay, 2002), as explained in Chapter 4.

Within this frame, I critically looked at my findings, searching for the most eloquent visual and written 'fragments' from the students and the teachers participants to assemble and create a series of three a/r/tographic pieces, which include my own interpretation through visual making. From the evidence found in the interviews, observations and students' art works at each school, I created two art works to represent the students' 'thinking' processes around images. In addition, from the teachers' approaches at each school, I produced a third image, which represents their strategies and the reflective possibilities of visual arts education. Each of these art works is completed with a text to guide the viewer's interpretation.

The following a/r/tographic images are based in multiple fragments from the data, coupled with my own interpretations, which complement the evaluation and conclusions of my research findings.

A/r/tographic piece inspired by the student's processes: Vena-Rose's thinking journey



Figure 22. Awakening through the artist models

This a/r/tographic image was inspired by Vena-Rose's thinking processes. The picture is a digital collage made of 'fragments' of some of her most eloquent architectural images influenced by diverse artist models, which I combined with photographs taken by me. These new images represent Vena-Rose taking photographs from multiple perspectives of the city, which was part of her drawing procedure. As the student's photos were manipulated later through digital techniques, I followed a similar method to symbolise her thinking journey and the use of technology as a discerning tool. Consequently, I manipulated the scale of my subjects, who appear as giants photographing an architectural landscape, which symbolise the student's scrutinising operations. Then I painted each camera's lens to represent her artistic strategies. This works as a metaphor of her making and reflective processes, but also involves my own understanding as an a/r/tographer (artist/ researcher/ teacher). Finally, I complemented this visual interpretation with a poem based on my impressions and fragments of Vena-Rose's interview, which were chosen to suggest her view about images.

A/r/tographic piece inspired by the student's processes: Bella's thinking journey

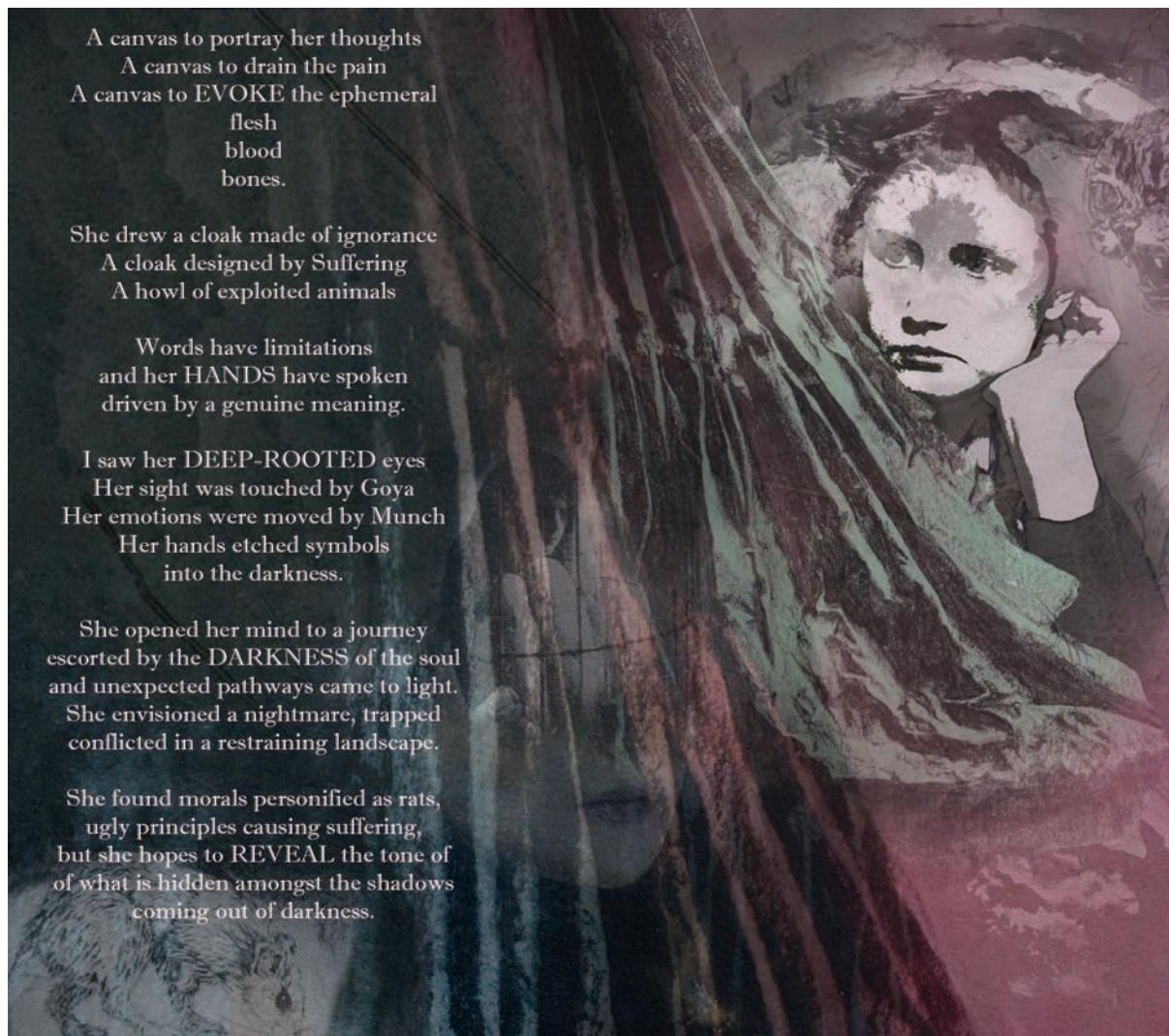


Figure 23. Drawing symbols into the darkness

This a/r/tographic piece was inspired by Bella's thinking journey. The image is a digital mix created with 'fragments' of some of the student's most expressive painting and printmaking images underpinned by different artist references. This picture also includes a photographic portrait of Bella taken by me, which was digitally manipulated to disguise her identity and represent her emotional approach. She appears in the upper right corner observing the dark zone at the left. As her creations revolve around emerging subjects from the darkness, I followed a related approach to suggest her thinking processes. Accordingly, I used different layers, where I insinuated uncanny characters hidden in the shadows. This works as a metaphor of her creative and insightful art making, coupled with my own comprehension as a/r/tographer. Lastly, I completed this pictorial reading of her thinking with a poem based on my interpretations and fragments of Bella's interview, which were selected to evoke her deep understandings around the visual.

A/r/tographic piece inspired by the two visual arts teachers' approaches

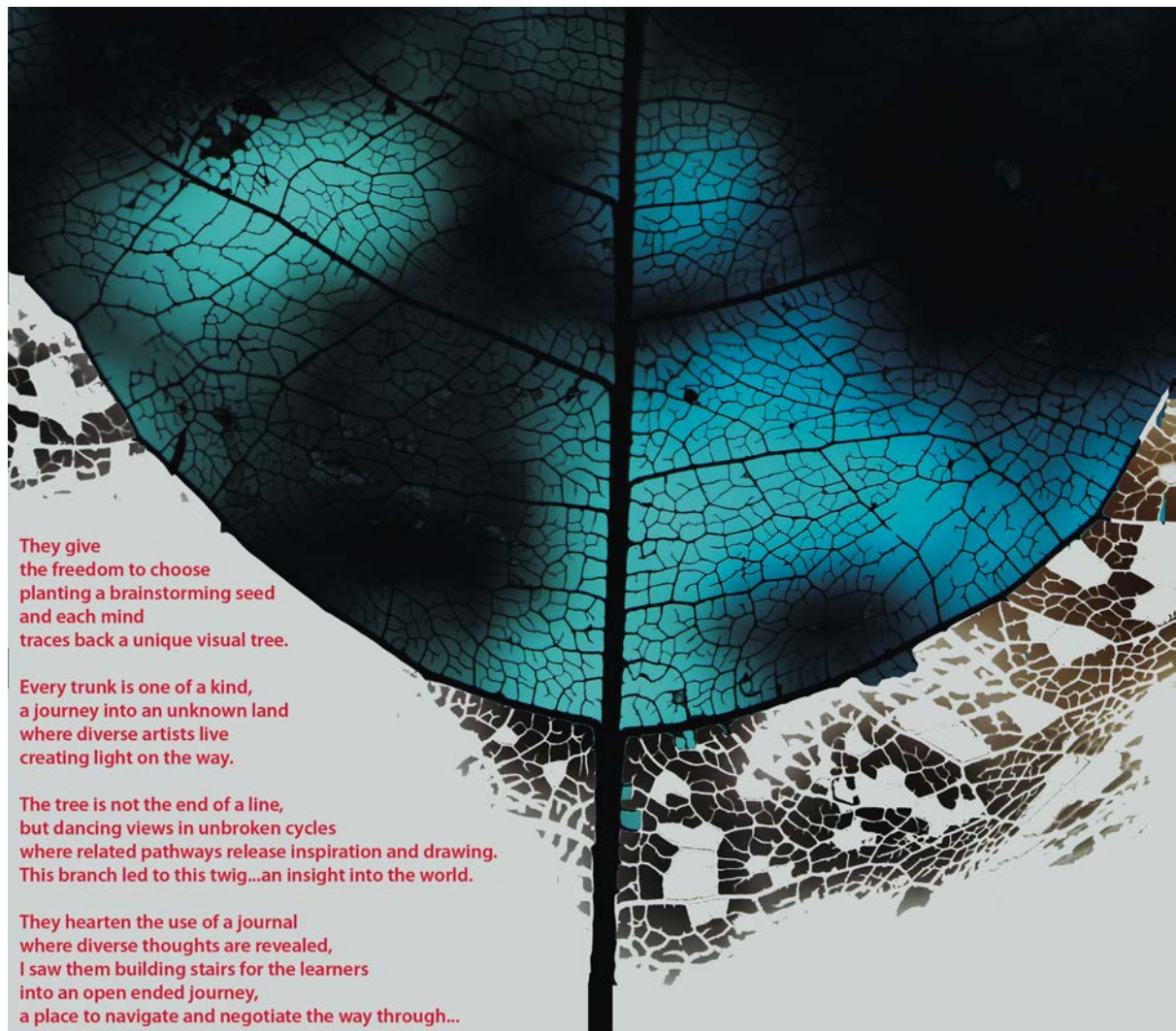


Figure 24. Giving the freedom to think

This final a/r/tographic image was inspired by the two visual arts teachers' approaches for developing students' critical thinking through images. As the most relevant feature of their strategies is the progressive freedom given to students to explore their own program of work, I created this picture around that concept. I photographed a leaf, which I manipulated to represent a tree and to symbolise the way in which the teachers presented the notion of the thinking journey. Students are encouraged to research and select diverse related artists to inspire their own art making. Correspondingly, the leaf stem becomes a trunk, metaphorically suggesting their chosen pathway which, as they move forward, offers several branches or alternative thinking journeys to follow. The leaf ribs are as interconnected as the artists, who are linked by their approaches. Students are free to choose their way through and are encouraged to vary their journeys through cycles of thinking, as a natural reflective process. Finally, I complemented this visual metaphor with a poem based on fragments of the teachers' interviews and my conclusions from this research.

APPENDICES

Appendix A – Informed Consent

- A1 Participant Information Sheet (Principal/Board of Trustees)
- A2 Consent Form (Principal/Board of Trustees)
- A3 Participant Information Sheet (Visual arts teacher)
- A4 Consent Form (Visual arts teacher)
- A5 Participant Information Sheet (Year 13 student)
- A6 Consent Form (Year 13 student)

Appendix B – Data Gathering Instruments

- B1 Interview Questions (Visual arts teacher)
- B2 Interview Questions (Year 13 student)
- B3 Visual Arts Matrix 2012 (NCEA)
- B4 Achievement Standard 3.1 (Photography)
- B5 Achievement Standard 3.2 (Photography)
- B6 Achievement Standard 3.3 (Photography)
- B7 Achievement Standard 3.1 (Painting)
- B8 Achievement Standard 3.2 (Painting)
- B9 Achievement Standard 3.3 (Painting)

Appendix A – Informed Consent

A1 - Participant Information Sheet – Principal and Chair of Board of Trustees

School of Curriculum and Pedagogy



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Auckland 1150
New Zealand

Participant Information Sheet – Principal and Chair of Board of Trustees

Principal: *name to be inserted*

School: *name to be inserted*

Researcher: Veronica Garcia Lazo

Supervisor: Dr Jill Smith

Title of research: Developing students' critical 'thinking' skills through images

Date: /2012

Dear

My name is Veronica Garcia Lazo and I am an international student from Chile studying at the University of Auckland in 2012. This letter is to ask if you would kindly assist me with a research project I am conducting as part of the requirements for my Master of Professional Studies degree under the supervision of Dr Jill Smith. For this research my supervisor has suggested that I approach your school, one of two in Auckland whom I wish to invite, about the participation of the Head of Art Department,, and one year 13 visual arts student who volunteers to be a 'student participant'. The purpose of writing to you is to gain your approval to approach her/him to participate in this research.

The research is motivated by my experiences as an artist and visual arts teacher in my home country, where there is a strong belief that the arts are just for recreation and that educational priorities should be focused on the development of thinking skills through numeracy and literacy. In contrast to Chile,

there is support in *The New Zealand Curriculum* (Ministry of Education, 2007) that one of the 'key competences' in the curriculum is the development of thinking skills in all curriculum areas. I have learnt that at year 13 there is also emphasis in specialist visual arts courses on students developing visual literacies and thinking skills through the study of established practices of artists. In this study I hope to collect evidence that will contribute to a comparative study of visual arts education in New Zealand and Chile.

The aim of my research is to investigate how year 13 secondary school students develop 'thinking' skills through images. My study will involve an examination of the strategies New Zealand visual arts teachers apply to foster the critical thinking of students within visual arts education and how the students respond to these experiences. I will be investigating whether the teachers' plans to encourage thinking in students, through the use of images, are effective and what knowledge students perceive they have gained. This study will also attempt to find evidence of the development of critical thinking skills during the students' art making practice, in their art works, and through their explanations of these. The final aim of this study is to offer a critical discussion around different approaches to promote cognitive skills in this area.

Underpinning my research is an innovative arts-based theoretical perspective and methodology called *A/r/tography*, which focuses on the artist/researcher/teacher and engages with 'self and others'. It uses images (e.g. 'fragments') and text (graphy) to report findings. For that reason I will not be presenting an exclusively text-based dissertation. Instead, it will include photographic documentation made during the data collection, as well as my own *a/r/tographic* art work to represent the findings. The research methodology has shaped the four methods I will use to collect data. The total time the teacher and student would be asked to give to the study is up to 120 minutes each between 15 July and 17 August in Term 3. This would involve:

- An audio-taped interview with the teacher, of up to 60 minutes, in which they will be asked about the strategies they use to foster thinking skills in students studying visual art. The interview would take place in the art room at a time convenient to the teacher. Photographs will be taken in a way that disguises the visual arts teacher's identity. The teacher may request that the tape-recorder be turned off at any stage and/or that the researcher stops taking photographs;
- One observation of the art teacher working with the student participant in the art room context during a year 13 visual arts class (approx. 60 minutes). This process will be audio-taped and recorded photographically in a manner that disguises the identities of the teacher and the student participant. The student will be positioned in the art room in such a way that other students will not be audio-taped or photographed incidentally. -. The aim of using the art room during the observation is to gain a 'sense' of the location in which the teacher and student work together. The teacher and student participant may request that the tape-recorder be turned off at any stage and/or that the researcher stops taking photographs;

- An interview with the student participant, for up to 30 minutes, in which I will ask her/him how they think they develop thinking skills within their visual arts subject. This interview would take place in the art room at lunch time/study period/after school at the agreement of the student and the teacher. It will be audio-taped and photographs taken that disguise the student's identity. The student participant may request that the tape-recorder be turned off at any stage and/or that the researcher stops taking photographs;
- Selection by the student participant of some 'fragments' (a few examples of their art making processes from their workbooks or visual diaries and some art works), which they think illustrates the development of their thinking skills. This selection process, which may take up to 30 minutes, will be recorded by audio-tape and photographs and could take place in conjunction with their interview in the art room at lunch time/study period/after school at the agreement of the student and the teacher. The student participant may request that the tape-recorder be turned off at any stage and/or that the researcher stops taking photographs. Examples of the student's art works/fragment will be acknowledged in the reporting of the research via their self-selected pseudonym.

If you agree to’s participation in this research I will send her/him a *Teacher-Participant Information Sheet* and *Teacher Consent Form*. In the information sheet I will ask the teacher to explain the research project to their specialist year 13 visual arts class, and to invite a year 13 visual arts student to be the 'student participant'. If more than one student volunteers I will randomly select the name of one student. I will then ask the teacher to give the volunteer student participant a *Student-Participant Information Sheet* and *Student-Consent Form*. I will also ask the teacher to explain to the whole class that during the observation lesson all students will be present but the focus will be on the student participant. That student will be located in the art room in such a way that the other students will not be audio-taped or photographed.

I wish to give you the following assurances. The participation of your school, the visual arts teacher, and the student participant is voluntary. Each of you has the right to withdraw from this research at any time, or withdraw information that has been provided up until data collection ceases, without giving a reason. I anticipate this will be on 17 August, 2012. To protect the identity of participants, consent forms and data will be stored separately and securely by my supervisor at The University of Auckland. These will be kept for a period of six years and then destroyed. Hard data will be shredded and electronic documentation erased. Every attempt will be made to protect the identity of your school, the teacher, and the student through self-selected pseudonyms, although anonymity cannot be guaranteed. I also seek your assurance that the visual arts teacher and year 13 student's decision to participate or not in this research will not affect their employment status or relationship with the school. At the completion of the study you and the participants will be invited to view the research findings as an a/r/tographic presentation and will also receive a PDF of the dissertation.

If you have any further queries please contact me or my Supervisor. I do hope you will agree to the visual arts teacher and a year 13 visual arts student in your school participating in this research. If so, I would appreciate you signing the Consent Form and returning it to me in the envelope provided.

Yours sincerely

(signature)

My contact details are:

Veronica Garcia Lazo

Mobile: 02108225834

Uni email: vgar718@aucklanduni.ac.nz

My supervisor is:

Dr Jill Smith

School of Arts, Languages and Literacies

Faculty of Education

The University of Auckland

j.smith@auckland.ac.nz

Phone: (09) 623 8899 extn 48713.

For ethical concerns please contact:

The Chair

The University of Auckland Human Participants Ethics Committee

The University of Auckland

Office of the Vice-Chancellor

Private Bag 92019

Auckland 1142

APPROVED BY THE UNIVERSITY HUMAN PARTICIPANTS ETHICS COMMITTEE
ON.....2012 FOR 3 YEARS, Reference Number 2012/.....

A2 - Consent Form - Principal and Chair of Board of Trustees

School of Curriculum and Pedagogy



Epsom Campus
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The University of Auckland
Private Bag 92601,
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Auckland 1150
New Zealand

Consent Form - Principal and Chair of Board of Trustees

This form will be held for a period of six years

Principal / School: *(names to be inserted here)*

Title of research: Developing students' critical 'thinking' skills through images

Researcher: Veronica Garcia Lazo

I have read the *Principal/Chair BOT Participant Information Sheet* and I understand the nature of the research and why I have been asked to give permission for the researcher to approach the visual arts teacher in my school to participate in this study and for her/him to ask a year 13 visual arts student to volunteer to be the 'student participant'. I have had the opportunity to ask questions and have them answered to my satisfaction.

- I agree that the researcher may approach the visual arts teacher at my school to participate in the research.
- I agree that the visual arts teacher may explain the research project to their year 13 visual arts class and invite a year 13 visual arts student to volunteer to participate in the research. I understand that if there is more than one student volunteer the researcher will randomly select one name.
- I agree that the visual arts teacher may participate in the data collection methods outlined, to a maximum of 120 minutes, and that these will take place in the art room at times agreed by the teacher between 15 July and 17 August. I understand that the teacher may request that the tape-recorder be turned off at any stage and/or that the researcher stops taking photographs.
- I agree that the year 13 visual arts student may participate in the data collection methods outlined, to a maximum of 120 minutes, and that these will take place in the art room at times agreed by the student and their teacher between 15 July and 17 August. I understand that the student may request that the tape-recorder be turned off at any stage and/or that the researcher stops taking photographs.

- I understand that other students in the year 13 art class will not be audio-taped or photographed.
- I understand that I may withdraw my permission for the visual arts teacher and the year 13 student participant to participate in this research at any time, without giving a reason.
- I understand that I may withdraw information that has been provided by the visual arts teacher and the student participant at any stage up until data collection ceases on 17 August 2012, without giving a reason.
- I understand that data will be kept for 6 years, after which they will be destroyed.
- I understand that this Consent Form will be securely stored separately from the research data for six years beyond the completion of the research, when both will be destroyed.
- I understand that neither my name, nor any identifiable information about me, the school, the visual arts teacher, or the student participant will be used in the research report. I also understand that while every attempt will be made to protect these identities through self-selected pseudonyms and the photographic techniques used by the researcher, anonymity cannot be guaranteed.
- I understand that the participation of the visual arts teacher is voluntary, and I give my assurance that the decision of the teacher to participate, or not, in the research will not affect their employment status or relationship with the school.
- I understand that the participation of the student participant is voluntary, and I give my assurance that the decision of the student to participate, or not, in the research will not affect their relationship with the school.
- I understand that I, the visual arts teacher, and the student participant will be invited to attend a viewing of the research findings and receive a PDF of the dissertation.

I agree to the visual arts teacher and a year 13 visual arts student participating in this research project (please circle one) YES NO

Principal's signature.....

Date.....

APPROVED BY THE UNIVERSITY HUMAN PARTICIPANTS ETHICS COMMITTEE ON.....
 2012 FOR 3 YEARS, Reference Number 2012/.....

A3 - Participant Information Sheet – Visual Arts Teacher

School of Curriculum and Pedagogy



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New Zealand

Participant Information Sheet – Visual Arts Teacher

Visual Arts Teacher / School: *(name to be inserted here – each letter will be personalized)*

Researcher: Veronica Garcia Lazo

Title of research: Developing students' critical 'thinking' skills through images

Date: /2012

Dear

My name is Veronica Garcia Lazo and I am an international student from Chile studying at the University of Auckland in 2012. Your Principal has given me permission to approach you, and one of your year 13 visual arts students, to participate in a research project I am conducting in two secondary schools. This is part of the requirements for my Master of Professional Studies degree under the supervision of Dr Jill Smith.

The research is motivated by my experiences as an artist and visual arts teacher in my home country, Chile, where there is a strong belief that the arts are just for recreation and that educational priorities should be focused on the development of thinking skills through numeracy and literacy. In contrast to Chile, *The New Zealand Curriculum* (Ministry of Education, 2007) states that one of the 'key competences' in the curriculum is the development of thinking skills in all curriculum areas. I have learnt that at year 13 there is also emphasis in specialist visual arts courses on students developing visual literacies and thinking skills through the study of established practices of artists. In this study I hope to collect evidence that will contribute to a comparative study of visual arts education in New Zealand and Chile.

The aim of my research is to investigate how year 13 secondary school students develop ‘thinking’ skills through images. My study will involve an examination of the strategies New Zealand visual arts teachers apply to foster the critical thinking of students within visual arts education and how the students respond to these experiences. I will be investigating whether the teachers’ plans to encourage thinking in students, through the use of images, are effective and what knowledge students perceive they have gained. This study will also attempt to find evidence of the development of critical thinking skills during the students’ art making practice, in their art works, and through their explanations of these. The final aim of this study is to offer a critical discussion around different approaches to promote cognitive skills in this area.

Underpinning my research is an innovative arts-based theoretical perspective and methodology called *a/r/tography*, which focuses on the artist/researcher/teacher and engages with ‘self and others’. It uses images (e.g. ‘fragments’) and text (graphy) to report findings. For that reason I will not be presenting an exclusively text-based dissertation. Instead, it will include photographic documentation made during the data collection, as well as my own *a/r/tographic* art work to represent the findings. The research methodology has shaped the four methods I will use to collect data. The total time that you, the teacher, and a year 13 student would be asked to give to the study is 120 minutes each between 15 July and 17 August in Term 3. This would involve:

- An audio-taped interview with you, of up to 60 minutes, in which you will be asked about the strategies you use to foster thinking skills in students studying visual art. The interview would take place in the art room at a time convenient to you. Photographs will be taken in a way that disguises your identity. You may request that the tape-recorder be turned off at any stage and/or that I stop taking photographs.
- One observation of you working with the student participant in the art room context during a year 13 visual arts class (approx. 60 minutes). This process will be audio-taped and recorded photographically in a manner that disguises the identities of yourself and the student participant. I would ask that the student be located in the art room in such a way that other students are not audio-taped or photographed incidentally. You and the student may request that the tape-recorder be turned off at any stage and/or that I stop taking photographs. The aim of conducting this observation in your art room, rather than in isolation, is to gain a ‘sense’ of the environment in which you and the student works.
- An interview with the student participant, for up to 30 minutes, in which I will ask her/him how they think they develop thinking skills within their visual arts subject. This interview would take place in the art room at lunch time/study period/after school at the agreement of the student and yourself. It will be audio-taped and photographs taken that disguise the student’s identity. The

student may request that the tape-recorder be turned off at any stage and/or that I stop taking photographs;

- Selection by the student participant of some 'fragments' (a few examples of their art making processes from their workbooks or visual diaries and some art works), which they think illustrates the development of their thinking skills. This selection process, which may take up to 30 minutes, will be recorded by audio-tape and photographs. It could take place in conjunction with their interview in the art room at lunch time/study period/after school at the agreement of the student and yourself. The student may request that the tape-recorder be turned off at any stage and/or that I stop taking photographs. Examples of the student's art works/fragments would be acknowledged in the reporting of the research via their self-selected pseudonym.

If you agree to participate in this research I would ask you to explain the research project to your specialist year 13 visual arts class, and invite a year 13 visual arts student to be the 'student participant'. If more than one student volunteers I will randomly select the name of one student. I will provide a *Student-Participant Information Sheet* and *Student-Consent Form* to give to the student. I would also ask you to explain to the whole class that during the observation lesson all students will be present but the focus will only be on the student participant. The identities of you and the student participant will be disguised through the photographic techniques used.

I wish to give you the following assurances. Your participation is voluntary. You have the right to withdraw from this research at any time, or withdraw information that has been provided up until data collection ceases, without giving a reason. I anticipate this will be on 17 August, 2012. To protect your identity consent forms and data will be stored separately and securely by my supervisor at The University of Auckland. These will be kept for a period of six years and then destroyed. Hard data will be shredded and electronic documentation erased. Every attempt will be made to protect your identity (and that of your school and student participant) through self-selected pseudonyms, although anonymity cannot be guaranteed. Your Principal has given their assurance that your decision to participate or not in this research will not affect your employment status or relationship with the school. At the completion of the study you, the Principal, and the year 13 student will be invited to view the research findings as an a/r/tographic presentation. You will also receive a PDF of the dissertation.

If you have any further queries please contact me or my Supervisor. I do hope you will agree to participate in this research. If so, I would appreciate you signing the Consent Form and returning it to me in the envelope provided.

Yours sincerely

(signature)

My contact details are:

Veronica Garcia Lazo

Mobile: 02108225834

Uni email: vgar718@aucklanduni.ac.nz

My supervisor is:

Dr Jill Smith

School of Arts, Languages and Literacies

Faculty of Education

The University of Auckland

j.smith@auckland.ac.nz

Phone: (09) 623 8899 extn 48713.

For ethical concerns please contact:

The Chair

The University of Auckland Human Participants Ethics Committee

The University of Auckland

Office of the Vice-Chancellor

Private Bag 92019

Auckland 1142

APPROVED BY THE UNIVERSITY HUMAN PARTICIPANTS ETHICS COMMITTEE
ON.....2012 FOR 3 YEARS, Reference Number 2012/.....

A4 - Consent Form – Visual Arts Teacher

School of Curriculum and Pedagogy



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New Zealand

Consent Form – Visual Arts Teacher

This form will be held for a period of six years

Visual Arts Teacher / School: *(names to be inserted here)*

Title of research: Developing students' critical 'thinking' skills through images

Researcher: Veronica Garcia Lazo

I have read the *Visual Arts Teacher-Participant Information Sheet* and understand the nature of the research. I understand that I have been given permission to ask a year 13 visual arts student to volunteer to be the 'student participant'. I have had the opportunity to ask questions and have them answered to my satisfaction.

- I agree to explain the research project to my year 13 visual arts class and to invite a student to volunteer to participate in the research. I understand that if there is more than one student volunteer the researcher will randomly select one name.
- I understand that I will give the volunteer student a *Student-Participant Information Sheet* and a *Student-Consent Form*.
- I agree to participate in the data collection methods outlined, to a maximum of 120 minutes, and that these will take place in the art room at times agreed by me between 15 July and 17 August.
- I understand that I may request that the tape-recorder be turned off at any stage during the interview and observation lesson and/or that the researcher stops taking photographs.

- I agree that the data collection methods involving me and the student, or only the student, can take place in the art room at times agreed by me and the student between 15 July and 17 August.
- I understand that other students in the year 13 class will not be audio-taped or photographed.
- I understand that my participation is voluntary and that I may withdraw from this research at any time, without giving a reason.
- I understand that I may withdraw information that has been provided by me at any stage up until data collection ceases on 17 August 2012, without giving a reason.
- I understand that data will be kept for 6 years, after which they will be destroyed.
- I understand that this Consent Form will be securely stored separately from the research data for six years beyond the completion of the research, when both will be destroyed.
- I understand that neither my name, nor any identifiable information about me, will be used in the research report. I also understand that while every attempt will be made to protect my identity, through a self-selected pseudonym and the photographic techniques used by the researcher, anonymity cannot be guaranteed.
- I understand that my Principal has given their assurance that my decision to participate, or not, in the research will not affect my employment status or relationship with the school.
- I understand that I will be invited to attend a viewing of the research findings and receive a PDF of the dissertation.

I agree to participate in this research project (please circle one) YES NO

Visual Arts Teacher's

signature.....

Date.....

APPROVED BY THE UNIVERSITY HUMAN PARTICIPANTS ETHICS COMMITTEE ON.....
 2012 FOR 3 YEARS, Reference Number 2012/.....

A5 - Participant Information Sheet – Year 13 Student

School of Curriculum and Pedagogy



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New Zealand

Participant Information Sheet – Year 13 Student

Student: *(name to be inserted here)*

School: *(name to be inserted here)*

Researcher: Veronica Garcia Lazo

Title of research: Developing students' critical 'thinking' skills through images

Date: /2012

Dear

My name is Veronica Garcia Lazo and I am from Chile. This year I am studying at the University of Auckland, completing a research project as part of the requirements for my Master of Professional Studies degree. My supervisor is Dr Jill Smith who has spent many years training secondary school visual arts teachers. I understand that your visual arts teacher has explained the research project to your year 13 class and that you have volunteered to be the 'student participant'. Your Principal has also given their permission for you to participate in this research project which I am conducting in two secondary schools.

This research is motivated by my experiences as an artist and visual arts teacher in my home country, Chile, where there is a strong belief that the arts are just for recreation and that educational priorities should be focused on the development of thinking skills through numeracy and literacy. In New Zealand, in contrast to Chile, your national curriculum states that one of the 'key competences' is the development of thinking skills in all curriculum areas. I have learnt that at year 13 there is also

emphasis in specialist visual arts courses (painting, photography, sculpture, printmaking and design) on students developing visual literacies and thinking skills through the study of established practices of artists. In my research I hope to collect information that will contribute to a comparative study of visual arts education in New Zealand and Chile.

The aim of my research is to find out how year 13 secondary school students develop ‘thinking’ skills through images. I want to discover what strategies New Zealand visual arts teachers use to foster the critical thinking of students within visual arts education and how students respond to these experiences. I want to find out whether the teachers’ plans to encourage thinking in students, through the use of images, are effective and what knowledge students think they have gained. I also want to discover whether critical thinking skills are developed during students’ art making practice, in their art works, and through their explanations of these. The final aim of this study is to offer a critical discussion around different approaches to promoting thinking skills.

For this research I am using an innovative arts-based methodology called *a/r/tography*, which focuses on the artist/researcher/teacher and engages with ‘self and others’. It uses images (e.g. ‘fragments’) and text (graphy) to report findings. For that reason I will not be presenting an exclusively text-based dissertation. Instead, it will include photographic documentation made during the data collection, as well as my own *a/r/tographic* art work to represent the findings. This research methodology has shaped the four methods I will use to collect data. The total time that you would be asked to give to the study is up to 120 minutes between 15 July and 17 August in Term 3. This would involve:

- One observation of your visual arts teacher working with you in the art room context during a year 13 visual arts class (approx. 60 minutes). This exchange between the two of you will be audiotaped and recorded photographically in a manner that disguises the identities of you and your teacher. During this observation you will be positioned in the art room in such a way that other students will not be audiotaped or photographed incidentally. You may request that the tape-recorder be turned off at any stage and/or that the researcher stops taking photographs;
- An interview with you, for up to 30 minutes, in which I will ask how you think you develop thinking skills in your visual arts subject. This interview would take place in the art room at lunch time/study period/after school at the agreement of you and the teacher. The interview will be audiotaped and photographs taken that disguise your identity. You may request that the tape-recorder be turned off at any stage and/or that the researcher stops taking photographs;
- Selection by you of some ‘fragments’ (a few examples of your art making processes from your workbook or visual diary and some art works), which you think, illustrates the development of your thinking skills. This selection process, which may take up to 30 minutes, will be recorded by audiotape and photographs. It could take place in conjunction with your interview in the art room

at lunch time/study period/after school at the agreement of you and your teacher. You may request that the tape-recorder be turned off at any stage and/or that the researcher stops taking photographs. Your art works or 'fragments' of them that I use in the reporting of the research will be acknowledged via your self-selected pseudonym.

I wish to give you the following assurances. Your participation is voluntary. You have the right to withdraw from this research at any time, or withdraw information you have given up until data collection ceases, without giving a reason. I anticipate this will be on 17 August 2012. To protect your identity consent forms and data will be stored separately and securely by my supervisor at The University of Auckland. These will be kept for a period of six years and then destroyed. Hard data will be shredded and electronic documentation erased. Every attempt will be made to protect your identity (and that of your school and teacher) through self-selected pseudonyms, although anonymity cannot be guaranteed. Your Principal has given their assurance that your decision to participate or not in this research will not affect your relationship with the school. At the completion of the study you, the Principal, and your teacher will be invited to view the research findings as an a/r/tographic presentation. You will also receive a PDF of the dissertation.

If you have any further queries please contact me or my Supervisor. I do hope you will agree to participate in this research. If so, I would appreciate you signing the Consent Form and returning it to me in the envelope provided.

Yours sincerely

(signature)

My contact details are:

Veronica Garcia Lazo

Mobile: 02108225834

Uni email: vgar718@aucklanduni.ac.nz

My supervisor is:

Dr Jill Smith

School of Arts, Languages and Literacies

Faculty of Education

The University of Auckland

j.smith@auckland.ac.nz

Phone: (09) 623 8899 extn 48713.

For ethical concerns please contact:

The Chair
The University of Auckland Human Participants Ethics Committee
The University of Auckland
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Private Bag 92019
Auckland 1142

APPROVED BY THE UNIVERSITY HUMAN PARTICIPANTS ETHICS COMMITTEE
ON.....2012 FOR 3 YEARS, Reference Number 2012/.....

A6 - Consent Form – Year 13 Student

School of Curriculum and Pedagogy



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New Zealand

Consent Form – Year 13 Student

This form will be held for a period of six years

Student: *(name to be inserted here)*

School: *(name to be inserted here)*

Title of research: Developing students' critical 'thinking' skills through images

Researcher: Veronica Garcia Lazo

I have read the *Year 13 Student-Participant Information Sheet* and understand the nature of the research. I have had the opportunity to ask questions and have them answered to my satisfaction.

- I agree to participate in the data collection methods outlined, to a maximum of 120 minutes, and that these will take place in the art room at times agreed by me between 15 July and 17 August.
- I understand that I may ask for the tape-recorder to be turned off at any stage and/or that the researcher stops taking photographs
- I understand that my art works or 'fragments' of them that are used in the reporting of the research will be acknowledged via my self-selected pseudonym.

- I understand that my participation is voluntary and that I may withdraw from this research at any time, without giving a reason.
- I understand that I may withdraw information that I have given at any stage up until data collection ceases on 17 August 2012, without giving a reason.
- I understand that data will be kept for 6 years, after which they will be destroyed.
- I understand that this Consent Form will be securely stored separately from the research data for six years beyond the completion of the research, when both will be destroyed.
- I understand that neither my name, nor any identifiable information about me, will be used in the research report. I also understand that while every attempt will be made to protect my identity, through a self-selected pseudonym and the photographic techniques used by the researcher, anonymity cannot be guaranteed.
- I understand that the Principal has given their assurance that my decision to participate, or not, in the research will not affect my relationship with the school.
- I understand that I will be invited to attend a viewing of the research findings and receive a PDF of the dissertation.

I agree to participate in this research project (please circle one) YES NO
--

Year 13 Student's signature.....

Date.....
.....

APPROVED BY THE UNIVERSITY HUMAN PARTICIPANTS ETHICS COMMITTEE ON.....
2012 FOR 3 YEARS, Reference Number 2012/.....

Appendix B – Data Gathering Instruments

B 1 - Interview Questions - Visual Arts Teachers

The National Certificate of Educational Achievement (NCEA) states that in order to promote broader learning capacities and knowledge, schools need to offer a flexible plan that is focused on the constant development of skills.

- How do you think that NCEA encourages the individual thinking and learning process in relation to previous educational systems?

The New Zealand Curriculum (Ministry of Education, 2007), states that ‘thinking’ is one of the seven Key Competencies that people use “to live, work, and contribute as active members of their communities” (p. 12).

- How do you incorporate this Key Competency in your year 13 NCEA visual arts program? Or at other teaching levels?

In the curriculum it says that thinking is about using ‘creative’ processes to make sense of information, experiences and ideas. Regarding your general strategies to develop critical thinking skills in students:

- What importance do you think should be given to visual literacy in our era in order to promote thinking?
- How do you present problems to encourage students’ critical thinking prior to, and during, the creative processes of art making?
- Which periods of Art/Art History do you think are ideal for the development of students’ analytical skills? Why?

Regarding your scheme to incorporate critical ‘thinking’ in Achievement Standard 3.1 in year 13:

- How do you encourage the development of critical thinking skills through researching artists in level 3.1?
- Which criteria do you use to guide students’ critical selection of artists and approaches in level 3.1?
- What kind of questions or context do you use to guide student’s critical analysis of images?
- How do you encourage in students a critical investigation of the selected approaches in 3.1?

- Which strategies do you use to foster in students a critical analysis of selected images and approaches at level 3.1?
- How do you assess student's development of thinking skills?

Regarding your strategies to include critical thinking in Achievement Standard 3.2 in year 13:

- How do you promote students' critical connection between level 3.1, 3.2 and 3.3?
- How do you discourage students from selecting cliché themes?
- What strategies do you use to encourage students thinking around new technologies and images?
- In what ways do you include analysis of images of popular visual culture?
- How do you ask students to critically select the most appropriate techniques or procedures to synthesise ideas and extend their understanding at level 3.2?
- How do you encourage students to critically organize, generate, analyse and clarify ideas at level 3.2?

Regarding your approaches to integrating critical thinking in Achievement Standard 3.3 in year 13:

- How do you get students to think about and map out a thinking journey, showing a starting point from where they are going to work towards?
- How do you get students to think about this process as a story that is going to be unfolded?
- How do you encourage students to draw that story keeping a cohesive thinking and visual language?

B2 - Interview Questions - Year 13 Students

- How important are images to you?
- How many images do you think you perceive daily by different media?
- What advantages do you think images have over other ways of communication?
- How do images make you 'think' in ways that are different from looking at text (for example)?
- In what ways do you think your visual arts classes have given you tools to understand the message contained in images?
- Which activity or activities in visual arts classes have changed the way you used to understand an image, to the way you understand images now?
- Which process of art making or art work do you perceive has been significant for your learning? Why? Explain

Regarding your researching process during your work for Achievement Standard 3.1:

- How have you selected artists' works and images to inspire your own ideas and art making process?
- Which image or visual artist, from those that you selected, do you think has change your way of thinking? Why? Explain the experience
- Which ideas do you think helped you to find relationships between the approaches of your selected images?

Regarding your drawing process during your work for Achievement Standard 3.2:

- Which do you think is going to be your connecting theme and elements between researching, drawing and producing?
- How do you deliberately select a particular media as the most effective for your portfolio?
- How are you going to apply that method to convey meaning?

Regarding your producing process during your work for Achievement Standard 3.3:

- How do you think you are going to visually map out your journey from your starting point to work towards?
- How do you think your visual story is going to be unfolded?

B3 – Visual Arts Matrix 2012 (NCEA), including Level 3

Level 1	Level 2	Level 3
<p>AS90913 1.1</p> <p>Demonstrate understanding of art works from Māori and other cultural contexts using art terminology.</p> <p>4 credits</p>	<p>AS91305 AS91308 AS91306 2.1 AS91309 AS91307</p> <p>Demonstrate an understanding of methods and ideas from established practice appropriate to design/painting/ photography/printmaking/ sculpture.</p> <p>4 credits</p>	<p>AS90515 AS90661 3.1 AS90659 AS90660 AS90662</p> <p>Research and analyse approaches within established design/painting/photography/ Printmaking/sculpture practice.</p> <p>4 credits</p>
<p>AS90914 1.2</p> <p>Use drawing methods and skills for recording information using wet and dry media.</p> <p>4 credits</p>	<p>AS91310 AS91313 AS91311 2.2 AS91314 AS91312</p> <p>Use drawing methods to apply knowledge of conventions appropriate to design/painting/ photography/printmaking/ sculpture.</p> <p>4 credits</p>	<p>AS90516 AS90665 3.2 AS90663 AS90666 AS90664</p> <p>Investigate and use ideas and methods in the context of a drawing study in design/painting/photography/ printmaking/ sculpture.</p> <p>6 credits</p>
<p>AS90915 1.3</p> <p>Use drawing conventions to develop work in more than one field of practice.</p> <p>6 credits</p>	<p>AS91315 AS91318 AS91316 2.3 AS91319 AS91317</p> <p>Develop ideas in a related series of drawings appropriate to established design/painting/photography/printmaking/ sculpture practice.</p> <p>4 credits</p>	<p>AS90517 AS90669 3.3 AS90667 AS90668 AS90670</p> <p>Produce original work within design/painting/ photography/printmaking/sculpture to show extensive knowledge of art-making methods and ideas.</p> <p>14 credits</p>
<p>AS90916 1.4</p> <p>Produce a body of work informed by established practice, which develops ideas, using a range of media.</p> <p>12 credits</p>	<p>AS91320 AS91323 AS91321 2.4 AS91324 AS91322</p> <p>Produce a systematic body of work that shows understanding of art making conventions and ideas within design/painting/photography/printmaking/sculpture.</p> <p>12 credits</p>	
<p>AS90917 1.5</p> <p>Produce a finished work that demonstrates skills appropriate to cultural conventions.</p> <p>4 credits</p>	<p>AS91325 2.5</p> <p>Produce a resolved work that demonstrates control of skills appropriate to cultural conventions.</p> <p>4 credits</p>	

[The standards at levels 2 and 3 are registered in the fields of: design, painting, sculpture, photography and printmaking].

B4 – Achievement Standard 3.1 (Photography)

Subject Reference	Visual Arts 3.1				
Title	Research and analyse approaches within established photography practice				
Level	3	Credits	4	Assessment	Internal
Subfield	Visual Arts				
Domain	Practical Art				
Registration date	23 November 2005	Date version published	23 November 2005		

This achievement standard involves researching and analysing approaches within established photography practice. Relationships between approaches will be investigated to consider the influences, methods and ideas in context.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none">• Research and analyse information relevant to selected approaches, which includes examples from established photography practice.• Present evidence of a practical investigation that is appropriate to the selected approaches.• Identify relationships between selected approaches with reference to influences, methods and ideas.	<ul style="list-style-type: none">• Research and analyse information relevant to selected approaches, which includes examples from established photography practice.• Present evidence of a practical investigation that is appropriate to the selected approaches.• Analyse relationships between selected approaches with reference to influences, methods and ideas.	<ul style="list-style-type: none">• Research information and make an in-depth analysis of selected approaches, which includes examples from established photography practice.• Present evidence of a practical investigation that is appropriate to the selected approaches.• Critically analyse the relationships between the selected approaches to show understanding of influences, methods and ideas.

Explanatory notes

- 1 This achievement standard is derived from the arts in the New Zealand curriculum, learning media, ministry of education, 2000; level 8 strands, p. 81, developing practical knowledge in the visual arts, developing ideas in the visual arts, communicating and interpreting in the visual arts, and understanding the visual arts in context.
- 2 Students are encouraged to focus research projects on work relating to their own cultural milieu and interests. where relevant, research will include examples/approaches from contemporary established New Zealand and international practice.
- 3 Approaches refer to artists' ways of working. approaches taken may be derived from artists' response to subject matter, technical processes, concepts, ideas, historical, cultural or geographic locations.
- 4 Relationships may include similarities and differences, links, both implicit and explicit, between ideas, methods, techniques, influences, theories and contexts, that may be social, political, cultural or historical.
- 5 To analyse, students would need to investigate the features of selected approaches and/or examples of art works. to critically analyse, students would need to investigate the key features of selected approaches and explain the significance of relationships.
- 6 Established practice refers to work by artists that is recognised as belonging to a particular tradition, style, genre or type.
- 7 Research includes:
 - Locating, gathering and analysing information relevant to the selected approaches and/or examples of art works
 - Student's own analysis and reflection on art works
 - Practical investigation such as digital data files, photographic records which may include technical experiments, compositional notes, proof sheets, working prints, photograms, collage, montage, digital processes and photographs.
- 8 Evidence for this achievement standard may be in the form of: visual diaries or data files with reports, annotated bibliographies, interviews, notes, visual maps, diagrams; slide talks with notes; seminar presentations.
- 9 Sources for research information could include relevant publications (e.g. books, journals, magazines, catalogues), internet, video, films, slide library, the artists' works studied, interviews, discussions, gallery and studio visits, marae, museums, public places, private collections.
- 10 It is recommended students have access to quality examples of work. contexts may include: gallery or museum, marae, public or private collections, urban and/or natural environment, studio or workshop situations.

Quality Assurance

Providers and Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against achievement standards.

Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference 0226

B5 – Achievement Standard 3.2 (Photography)

Subject Reference	Visual Arts 3.2				
Title	Investigate and use ideas and methods in the context of a drawing study in photography				
Level	3	Credits	6	Assessment	Internal
Subfield	Visual Arts				
Domain	Practical Art				
Registration date	23 November 2005	Date version published	23 November 2005		

This achievement standard involves investigating ideas and methods relating to art and art works in the context of the drawing study in photography. It also involves using established drawing processes, procedures, materials and techniques appropriate to ideas and methods studied, and using drawing to generate, analyse and clarify ideas.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none">• Investigate ideas and methods, and use these to inform a drawing study for photography.• Use established drawing processes, procedures, materials and techniques appropriate to ideas and methods studied.• Use drawing to generate, analyse and clarify ideas.	<ul style="list-style-type: none">• Investigate ideas and methods to provide options for development in a drawing study for photography.• Use established drawing processes, procedures, materials and techniques appropriate to ideas and methods studied to show understanding.• Use drawing to systematically generate, analyse and clarify ideas.	<ul style="list-style-type: none">• Analyse and evaluate ideas and methods to identify and clarify specific options in a drawing study for photography.• Use knowledge of established drawing processes, procedures, techniques and materials to synthesise ideas to extend understanding.• Use drawing to systematically and purposefully generate, analyse and clarify ideas.

Explanatory Notes

- 1 This achievement standard is derived from The Arts in the New Zealand Curriculum, Learning Media, Ministry of Education, 2000; Level 8 strands, p. 81, Developing Practical Knowledge in the Visual Arts, Developing Ideas in the Visual Arts, and Communicating and Interpreting in the Visual Arts.
- 2 Processes refer to the use of particular techniques with tools, technologies and materials.
- 3 Procedures refer to the order and nature of steps taken in getting from the beginning to the end of the problem.
- 4 Synthesise refers to the ability to bring together ideas and methods from different sources, to integrate them in the development of the student's own work.
- 5 Evidence of the ability to generate, analyse and clarify ideas will be identified in a range of work within the selected field.
- 6 Systematically means to reflect critically on each step in the development of work. Information generated from this reflection will be used to inform and clarify ideas.
- 7 Clarifying ideas requires students to specify parameters for investigation; it does not imply that these ideas will be resolved.
 - This may involve different processes, procedures, materials and techniques, all of which can be understood as drawing. This practice is dependent upon recognising and using drawing as a thinking and working process.
 - Drawing is an on-going decision-making process that enables a continuum to be established and maintained. Aspects of drawing are also identifiable in finished work.
 - Photography drawing may include sketches, compositional notes, proof sheets, working prints, photograms, collage, montage, digital processes and photographs.
 - Photography drawing should be used as central means of practical investigation. Where it is appropriate, students may include processes, procedures, methods and techniques from other art fields.
- 8 The drawing study should include work belonging to the cultural milieu and interests of the student and involve the study of work and ideas from recent and established practice. Where relevant, this evidence could also take account of the work of contemporary New Zealand artists.

- 9 Digital processes may be used as part of the drawing process. Teachers and candidates may choose to combine traditional practice with other processes such as digital image making. Successful Visual Arts teaching programmes will ensure that candidates maintain control of the processes, both digital and traditional, used in the production of their work.
- 10 The evidence may be based on an idea, subject matter, problem or situation, and must be related to established practice.

Note: Learning from established practice is the use of artists as models of practice; investigating the context within which art works are made to inform the students own work. The evidence will be critically edited, ordered and related to show the nature and order of steps taken.

Quality Assurance

- 1 Providers and Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against achievement standards.
- 2 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

0226

B6 – Achievement Standard 3.3 (Photography)

Subject Reference	Visual Arts 3.3				
Title	Produce original work within photography to show extensive knowledge of art-making methods and ideas				
Level	3	Credits	14	Assessment	External
Subfield	Visual Arts				
Domain	Practical Art				
Registration date	23 November 2005	Date version published	23 November 2005		

This achievement standard involves using drawing as the central means to generate, analyse, clarify and regenerate ideas towards the production of original work. It also involves showing knowledge of the characteristics and constraints of established processes, procedures, materials and techniques; developing a systematic approach to relating and evaluating ideas and methods; and using ideas and methods founded in recent and established practice in the production of a body of work within photography.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none">• Use drawing as the central means to generate, analyse, clarify and regenerate ideas.• Show knowledge of the characteristics and constraints of established processes, procedures, materials and techniques used.	<ul style="list-style-type: none">• Use drawing as the central means to purposefully generate, analyse, clarify and regenerate options.• Show knowledge and understanding of the characteristics and constraints of established processes, procedures, materials and techniques used.	<ul style="list-style-type: none">• Use drawing as the central means to purposefully generate a range and depth of ideas to analyse, clarify and regenerate options.• Show knowledge and understanding of the characteristics and constraints of established processes, procedures, materials and techniques, and use with fluency and purpose.

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> • Develop a systematic approach to relating ideas and methods in the production of work. • Use ideas and methods founded in recent and established practice in the production of original work. 	<ul style="list-style-type: none"> • Use a systematic approach to relating and evaluating ideas and methods in the production of work. • Use and understand particular ideas and methods founded in recent and established practice in the production of original work. 	<ul style="list-style-type: none"> • Systematically and critically relate, evaluate and synthesise a range of ideas and methods in the production of work. • Understand and build upon a range and depth of ideas and methods in context, and use these with insight in the production of original work.

Explanatory Notes

- 1 This achievement standard is derived from *The Arts in the New Zealand Curriculum*, Learning Media, Ministry of Education, 2000; Level 8 strands, p. 81, *Developing Practical Knowledge in the Visual Arts, Developing Ideas in the Visual Arts, Communicating and Interpreting in the Visual Arts* and *Understanding the Visual Arts in Context*.
- 2 Evidence of the ability to *generate, analyse, clarify and regenerate ideas* will be identified in a range of work within photography practice.
 - This may involve different processes, procedures, materials and techniques, all of which can be understood as *drawing*.
 - This practice is dependent upon recognising and using drawing as a thinking and working process.
 - *Drawing* is an ongoing decision-making process that enables a continuum to be established and maintained. Aspects of drawing are also identifiable in finished work.
 - *Photography drawing* may include sketches, compositional notes, proof sheets, working prints, photograms, collage, montage, digital processes and photographs.
 - *Photography drawing* should be used as central means of practical investigation. Where it is appropriate, students may include processes, procedures, methods and techniques from other art fields.
- 3 *Processes* refers to the use of particular techniques with tools, technologies and materials.
- 4 *Procedures* refers to the order and nature of steps taken in getting from the beginning to the end of the problem.

5 *Show knowledge of the characteristics and constraints of established processes, procedures, materials and techniques used.* All forms within photography practice are constrained by their kind, by the processes and procedures belonging to work of its kind and of the materials that characterise it. It is part of showing a practical understanding of any such practice to show an understanding of its limitations. This does not mean that students must not test the limits of such constraints. Indeed, if this is done successfully, the student should be rewarded. If, however, those constraints are ignored, then there can be no evidence, in the work, of the student's knowledge of their existence and thus no evidence that they are understood.

6 *Develop a systematic approach to relating ideas and methods in the production of work.* As part of producing work, it is important to be able to reflect critically on its outcome in a practical sense. This reflection will be evident in the work that follows. Evidence will be critically edited, ordered and related to show the nature and order of steps undertaken.

The process of evaluating, as required for Achievement with Merit and Achievement with Excellence, will be evident in the analysis and clarification of ideas in order to regenerate.

7 *Use ideas and methods founded in recent and established practice in the production of original work.*

Learning from established practice is the use of artists as models of practice and investigating the context within which art works are made. The purpose of this is to inform the student's own work. Students are encouraged to explore work relating to their own cultural milieu and interests. What counts as *recent and established practice* is a matter for teachers and students to determine together while taking account of the work of those contemporary New Zealand artists who have achieved critical acclaim.

Note: *Original work*, in this context, does not carry the meaning normally associated with the work of mature and innovative artists. *Original* refers to the extent to which the submission develops beyond the study of established practice and reveals the student's ability to make the work their own.

8 *Critically relate* refers to the student's ability to reflect on the outcomes of their work, make appropriate decisions and act as a consequence of that reflection in the works that follow.

9 *Synthesise* refers to the ability to bring together ideas and methods from different sources, to integrate them in the development of the student's own work.

Quality Assurance

- 3 Providers and Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against achievement standards.
- 4 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

0226

B7 – Achievement Standard 3.1 (Painting)

Subject Reference	Visual Arts 3.1				
Title	Research and analyse approaches within established painting practice				
Level	3	Credits	4	Assessment	Internal
Subfield	Visual Arts				
Domain	Practical Art				
Registration date	23 November 2005	Date version published	23 November 2005		

This achievement standard involves researching and analysing approaches, within established painting practice. Relationships between approaches will be investigated to consider the influences, methods and ideas in context.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none">• Research and analyse information relevant to selected approaches, which includes examples from established painting practice.• Present evidence of a practical investigation that is appropriate to the selected approaches.• Identify relationships between selected approaches with reference to influences, methods and ideas.	<ul style="list-style-type: none">• Research and analyse information relevant to selected approaches, which includes examples from established painting practice.• Present evidence of a practical investigation that is appropriate to the selected approaches.• Analyse relationships between selected approaches with reference to influences, methods and ideas.	<ul style="list-style-type: none">• Research information and make an in-depth analysis of selected approaches, which includes examples from established painting practice.• Present evidence of a practical investigation that is appropriate to the selected approaches.• Critically analyse the relationships between the selected approaches to show understanding of influences, methods and ideas.

Explanatory Notes

- 1 This achievement standard is derived from *The Arts in the New Zealand Curriculum*, Learning Media, Ministry of Education, 2000; Level 8 strands, p. 81, *Developing Practical Knowledge in the Visual Arts*, *Developing Ideas in the Visual Arts*, *Communicating and Interpreting in the Visual Arts*, and *Understanding the Visual Arts in Context*.
- 2 Students are encouraged to focus research projects on work relating to their own cultural milieu and interests. Where relevant, research will include examples/approaches from contemporary established New Zealand and international practice.
- 3 *Approaches* refer to artists' ways of working. Approaches taken may be derived from artists' response to subject matter, technical processes, concepts, ideas, historical, cultural or geographic locations.
- 4 *Relationships* may include similarities and differences, links, both implicit and explicit, between ideas, methods, techniques, influences, theories and contexts, for example social, political, cultural, historical.
- 5 To *analyse*, students would need to investigate the features of selected approaches and/or examples of art works. To *critically analyse*, students would need to investigate the key features of selected approaches and explain the significance of relationships.
- 6 *Established practice* refers to work by artists that is recognised as belonging to a particular tradition, style, genre or type.
- 7 *Research* includes:
 - Locating, gathering and analysing information relevant to the selected approaches and/or examples of art works
 - Student's own analysis and reflection on art works
 - Practical investigation such as drawing notes, sketches, monochromatic and colour studies, collage, technical experiments/studies, developmental works, research drawing sequences, annotated drawings and digital data files.
- 8 Evidence for this achievement standard may be in the form of: visual diaries or data files with reports, annotated bibliographies, interviews, notes, visual maps, diagrams; slide talks with notes; seminar presentations.
- 9 Sources for research information could include relevant publications (e.g. books, journals, magazines, catalogues), internet, video, films, slide library, the artists' works studied,

interviews, discussions, gallery and studio visits, marae, museums, public places, private collections.

- 10 It is recommended students have access to quality examples of work. Contexts may include: gallery or museum, marae, public or private collections, urban and/or natural environment, studio or workshop situations.
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Quality Assurance

- 1 Providers and Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against achievement standards.
- 2 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

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B8 – Achievement Standard 3.2 (Painting)

Subject Reference	Visual Arts 3.2				
Title	Investigate and use ideas and methods in the context of a drawing study in painting				
Level	3	Credits	6	Assessment	Internal
Subfield	Visual Arts				
Domain	Practical Art				
Registration date	23 November 2005	Date version published	23 November 2005		

This achievement standard involves investigating ideas and methods relating to art and art works in the context of the drawing study in painting. It also involves using established drawing processes, procedures, materials and techniques appropriate to ideas and methods studied, and using drawing to generate, analyse and clarify ideas.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none">• Investigate ideas and methods, and use these to inform a drawing study for painting.• Use established drawing processes, procedures, materials and techniques appropriate to ideas and methods studied.• Use drawing to generate, analyse and clarify ideas.	<ul style="list-style-type: none">• Investigate ideas and methods to provide options for development in a drawing study for painting.• Use established drawing processes, procedures, materials and techniques appropriate to ideas and methods studied to show understanding.• Use drawing to systematically generate, analyse and clarify ideas.	<ul style="list-style-type: none">• Analyse and evaluate ideas and methods to identify and clarify specific options in a drawing study for painting.• Use knowledge of established drawing processes, procedures, techniques and materials to synthesise ideas to extend understanding.• Use drawing to systematically and purposefully generate, analyse and clarify ideas.

Explanatory Notes

- 1 This achievement standard is derived from *The Arts in the New Zealand Curriculum*, Learning Media, Ministry of Education, 2000; Level 8 strands, p. 81, *Developing Practical Knowledge in the Visual Arts*, *Developing Ideas in the Visual Arts*, and *Communicating and Interpreting in the Visual Arts*.
- 2 *Processes* refers to the use of particular techniques with tools, technologies and materials.
- 3 *Procedures* refers to the order and nature of steps taken in getting from the beginning to the end of the problem.
- 4 *Synthesise* refers to the ability to bring together ideas and methods from different sources, to integrate them in the development of the student's own work.
- 5 Evidence of the ability to *generate, analyse and clarify ideas* will be identified in a range of work within the selected field.
- 6 *Systematically* means to reflect critically on each step in the development of work. Information generated from this reflection will be used to inform and clarify ideas.
- 7 *Clarifying ideas* requires students to specify parameters for investigation, it does not imply that these ideas will be resolved.
 - a. This may involve different processes, procedures, materials and techniques, all of which can be understood as *drawing*. This practice is dependent upon recognising and using drawing as a thinking and working process.
 - b. *Drawing* is an ongoing decision-making process that enables a continuum to be established and maintained. Aspects of drawing are also identifiable in finished work.
 - c. *Painting drawing* may include drawing notes, sketches, monochromatic and colour studies, collage, photographs, digital processes, developmental and finished works.
 - d. *Painting drawing* should be used as central means of practical investigation. Where it is appropriate, students may include processes, procedures, methods and techniques from other art fields.
- 8 The drawing study should include work belonging to the cultural milieu and interests of the student and involve the study of work and ideas from recent and established practice. Where relevant, this evidence could also take account of the work of contemporary New Zealand artists.
- 9 Digital processes may be used as part of the drawing process. Teachers and candidates may choose to combine traditional practice with other processes such as digital image-making.

Successful Visual Arts teaching programmes will ensure that candidates maintain control of the processes, both digital and traditional, used in the production of their work.

10 The evidence may be based on an idea, subject matter, problem or situation, and must be related to established practice.

11 Note: Learning from established practice is the use of artists as models of practice; investigating the context within which art works are made to inform the students own work. The evidence will be critically edited, ordered and related to show the nature and order of steps taken.

Quality Assurance

5 Providers and Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against achievement standards.

6 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

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B9 – Achievement Standard 3.3 (Painting)

Subject Reference	Visual Arts 3.3				
Title	Produce original work within painting to show extensive knowledge of art-making methods and ideas				
Level	3	Credits	14	Assessment	External
Subfield	Visual Arts				
Domain	Practical Art				
Registration date	23 November 2005	Date version published	23 November 2005		

This achievement standard involves using drawing as the central means to generate, analyse, clarify and regenerate ideas towards the production of original work. It also involves showing knowledge of the characteristics and constraints of established processes, procedures, materials and techniques; developing a systematic approach to relating and evaluating ideas and methods; and using ideas and methods founded in recent and established practice in the production of a body of work within painting.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none">• Use drawing as the central means to generate, analyse, clarify and regenerate ideas.• Show knowledge of the characteristics and constraints of established processes, procedures, materials and techniques used.• Develop a systematic approach to relating ideas and methods in the production of work.	<ul style="list-style-type: none">• Use drawing as the central means to purposefully generate, analyse, clarify and regenerate options.• Show knowledge and understanding of the characteristics and constraints of established processes, procedures, materials and techniques used.• Use a systematic approach to relating and evaluating ideas and methods in the production of work.	<ul style="list-style-type: none">• Use drawing as the central means to purposefully generate a range and depth of ideas to analyse, clarify and regenerate options.• Show knowledge and understanding of the characteristics and constraints of established processes, procedures, materials and techniques, and use with fluency and purpose.• Systematically and critically relate, evaluate and synthesise a range of ideas and methods in the production of work.

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Use ideas and methods founded in recent and established practice in the production of original work. 	<ul style="list-style-type: none"> Use and understand particular ideas and methods founded in recent and established practice in the production of original work. 	<ul style="list-style-type: none"> Understand and build upon a range and depth of ideas and methods in context, and use these with insight in the production of original work.

Explanatory Notes

- 1 This achievement standard is derived from The Arts in the New Zealand Curriculum, Learning Media, Ministry of Education, 2000; Level 8 strands, p. 81, *Developing Practical Knowledge in the Visual Arts, Developing Ideas in the Visual Arts, Communicating and Interpreting in the Visual Arts* and *Understanding the Visual Arts in Context*.
- 2 Evidence of the ability to *generate, analyse, clarify and regenerate ideas* will be identified in a range of work within painting practice.
 - This may involve different processes, procedures, materials and techniques, all of which can be understood as *drawing*.
 - This practice is dependent upon recognising and using drawing as a thinking and working process.
 - *Drawing* is an ongoing decision-making process that enables a continuum to be established and maintained. Aspects of drawing are also identifiable in finished work.
 - *Painting drawing* may include drawing notes, sketches, monochromatic and colour studies, collage, photographs, digital processes, developmental and finished works.
 - *Painting drawing* should be used as central means of practical investigation. Where it is appropriate, students may include processes, procedures, methods and techniques from other art fields.
- 3 Processes refers to the use of particular techniques with tools, technologies and materials.
- 4 Procedures refers to the order and nature of steps taken in getting from the beginning to the end of the problem.

- 5 Show knowledge of the characteristics and constraints of established processes, procedures, materials and techniques used. All forms within painting practice are constrained by their kind, by the processes and procedures belonging to work of its kind and of the materials that characterise it. It is part of showing a practical understanding of any such practice to show an understanding of its limitations. This does not mean that students must not test the limits of such constraints. Indeed, if this is done successfully, the student should be rewarded. If, however, those constraints are ignored, then there can be no evidence, in the work, of the student's knowledge of their existence and thus no evidence that they are understood.
- 6 Develop a systematic approach to relating ideas and methods in the production of work. As part of producing work, it is important to be able to reflect critically on its outcome in a practical sense. This reflection will be evident in the work that follows. Evidence will be critically edited, ordered and related to show the nature and order of steps undertaken.

The process of evaluating, as required for Achievement with Merit and Achievement with Excellence, will be evident in the analysis and clarification of ideas in order to regenerate.

- 7 Use ideas and methods founded in recent and established practice in the production of original work.
Learning from established practice is the use of artists as models of practice and investigating the context within which art works are made. The purpose of this is to inform the student's own work. Students are encouraged to explore work relating to their own cultural milieu and interests. What counts as recent and established practice is a matter for teachers and students to determine together while taking account of the work of those contemporary New Zealand artists who have achieved critical acclaim.

Note: Original work, in this context, does not carry the meaning normally associated with the work of mature and innovative artists. Original refers to the extent to which the submission develops beyond the study of established practice and reveals the student's ability to make the work their own.

- 8 Critically relate refers to the student's ability to reflect on the outcomes of their work, make appropriate decisions and act as a consequence of that reflection in the works that follow.
- 9 Synthesise refers to the ability to bring together ideas and methods from different sources, to integrate them in the development of the student's own work.

Quality Assurance

- 7 Providers and Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against achievement standards.
- 8 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

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