THE DEVELOPMENT OF A TEACHER OBSERVATION PROFILE FOR GIFTED AND TALENTED CHILDREN IN THE VISUAL ARTS

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ABSTRACT

This study investigated and developed a procedure for the identification of artistically gifted and talented children in New Zealand primary schools. The resulting teacher observational profile has two purposes: to provide a framework by which children become aware of their gifts and talents in the Visual Arts; and to provide educators with a structured approach for identifying students who are gifted and talented in the Visual Arts. The observational procedures gave information which provided the foundation for enriched and accelerated Visual Arts programmes.

The action research approach focused on the improvement of teaching practice through observation methods utilising five phases in the development of the identification instrument. The first phase was an examination of the issues and practices related to identification of gifted and talented children. A comprehensive review of the general and Visual Art literature was undertaken to draw on the problems of definition, identification and application. The initial formation of the instrument was developed from the literature in collaboration with a pilot school in the second phase. The third phase was a review of the instrument by a professional panel. The fourth phase trialed the procedures on a cross-section of primary schools and age groups. The fifth phase analysed the data collected and refined the teacher observational profile. Thus, practising teachers were involved collaboratively throughout the research process.

Each phase provided evidence upon which to base modifications to the instrument. The analyses of the three modifications generated three sets of data to determine whether the instrument was capable of identifying the characteristics in children to an exceptional level. The first analysis provided evidence of general and Visual Art learning characteristics in children's work samples to an exceptional level. The second analysis provided exceptional qualities along with combinations of interrelating patterns of Visual Art learning characteristics. The third analysis provided evidence of general learning characteristics. The results showed that characteristics are manifested in clusters and are independent in this instrument. The three analyses did not always identify the same children. This study revealed that without a structured system

teachers in primary schools could easily overlook gifted and talented children in the Visual Arts.

It is envisaged that the identification procedures presented in this thesis would be subject to further research, review and development.

PREFACE AND ACKNOWLEDGEMENTS

This thesis is about the development of an observational tool for identification of gifted and talented children in the Visual Arts. The study evolved through two significant factors. Firstly, when teaching Visual Arts in secondary schools I recognised that some children are different from others in their approach to the Visual Arts. Secondly, enrolling in The Education and Development of Talent paper with my supervisor, Dr. Tracy Riley, provided the mechanism to investigate these children. It was opportune to explore children's drawings to determine what makes these 'wondrous events'. This study has focused on identification rather than assessment. Both identification and assessment cross boundaries and have factors in common but are used for quite different purposes. Identification of giftedness and talent is not practised often in the Visual Arts in primary schools in New Zealand. Bringing into existence a structured identification system for the Visual Arts will hopefully promote programme opportunities and foster new beginnings for many children.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO STUDY

When considering the background for this study, one needs to question whether a structured process for the identification of gifted and talented children in the Visual Arts is really necessary in New Zealand primary schools. This needs to be considered in relation to the nature of the widespread social change occurring in education in New Zealand. On examining this question Cathcart (1996) is of the opinion that social change has not impacted on our national psyche, and we are still firmly imbued with egalitarianism. This national belief in egalitarianism has been a major barrier to educational provisions for gifted and talented children in our country (Moltzen, 1999). The impact of egalitarianism, along with the unfavourable educational climate perceived in dealing with creative achievement in our schools, generally discourages the development of potentialities in children who are gifted and talented in the Visual Arts (Torrance, 1984).

The lack of recognition in our educational environment for gifted and talented children in the Visual Arts creates a challenging opportunity for the researcher. The researcher has developed this study from observation and experience as an art educator in the primary and secondary classroom. Observation of gifted and talented children from a range of age groups has shown they stand apart and are distinctly different from their same age peers. These children articulate their ideas and concepts quite differently from other children in the class. Perhaps the most challenging factor for the art teacher has been the way in which these children appear to disadvantage themselves either through perceptions of not being good enough or by striving for perfection. They continually exhibit anxiety and frustration over various aspects of the artistic process and require ongoing support, encouragement, nurturing and mentoring to achieve their aspirations in this field of endeavour.

The self-perceptions of children who have displayed exemplary skills and abilities appear to be influenced in various ways (Gardner, 1983). Three factors seem to stand out as significant. The first factor is that children do not know or recognise that they are

gifted and talented nor do they realise their potential in the Visual Arts. The second factor is that children often experience anxiety when they compare themselves to others. They measure themselves against someone whom they consider is better than themselves. Experience has shown that it is not uncommon for children to measure themselves against adult concepts of artistic skill. The third factor relates to the fact that there appears to be no particular structured procedure for identifying and supporting gifted and talented children in the Visual Arts in New Zealand. These factors contribute to the complexity of the artistic process and traverse a range of skills, abilities and behaviours, which is wide in scope and inclusive in emphasis (Freeman, 1987). Research today supports the identification of gifted and talented children across multiple categories of abilities, skills and characteristics, including the Visual Arts (Gardner, 1983; McAlpine, 1996).

McAlpine and Reid (1996) formulated a set of Teacher Observation Scales For Identifying Children With Special Abilities to use in New Zealand schools. In examining the behaviours identified in the Teacher Observation Scales For Identifying Children With Special Abilities they appear to relate to intellectual giftedness; thus, they do not reflect the specific characteristics of children who are gifted and talented in the Visual Arts. These need to be identified and acknowledged by teachers and others so they can be fostered and nurtured. The lack of an identifiable set of characteristics for gifted and talented children in the Visual Arts means that this area of giftedness is neither strengthened nor challenged (Chetelat, 1981).

Research has shown that identification of children's art abilities is often based on personal appraisal and subjective means rather than objective data (Chetelat, 1981; Rutledge, 1987). The judgment and perceptions of teachers will always play a role in the identification and assessment of children's artwork. In reality, teacher perceptions are rarely supported by documented objective evidence. If teachers use unstructured means they will lack consistency and accuracy resulting in gifted and talented children being overlooked. Children who are perceived as underachieving, bored with their studies, refusing to participate, showing disinterest or simply coming from another culture are disadvantaged. Teacher and parent perceptions of what constitutes gifted and talented children in the Visual Arts often do not have any bearing on whether children

are gifted and talented. Children who are able to copy a cartoon, for example, are not necessarily gifted.

Regardless of whether identification is necessary or whether our national climate supports gifted and talented children in the Visual Arts, every consideration must be given to the learning needs of all our children (Ministry of Education, 1989; 1993). Despite difficulties, teachers do their best to achieve this and are very aware that children do not have identical learning needs. Children differ widely in what they know, the strengths and skills they possess, and the learning styles they utilise. Whether a child has the potential to develop exceptional abilities or whether the ability is already manifested, it is important that the educational environment provides the opportunity for the development of their artistic abilities (Ministry of Education, 2000).

1.2 RESEARCH OBJECTIVE

The objective of the research was to develop a structured identification process for teachers to use in New Zealand primary schools. Within the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts, the researcher sought to identify characteristics that reside in the Visual Arts realm. The characteristics included in the teacher observational profile provide children and teachers with knowledge and understanding of skills and abilities aligned to work in the Visual Arts. This not only informs children of their own learning needs but also provides teachers with identifiable characteristics. For teachers to be effective they must be able to recognise and provide for a range of learning needs. Research by Clark and Zimmerman (1992) shows evidence that gifted and talented children learn more effectively in a similar rather than mixed ability environment. Therefore it is essential for children with exceptional abilities to be identified, so the teaching programme can be developed in order to meet the learning needs of these children (Cathcart, 1996). The teacher observational profile provides information for teachers to make creative shifts and focuses on Visual Art education (Treffinger, 1984).

Within the literature review the complexities and problems involved in identification are examined by focusing on concepts, definitions, behaviours, characteristics, attitudes and the teacher's role towards identifying gifted and talented children in the Visual Arts. A number of factors influence definition such as intelligences, cultural differences, student

characteristics, cognitive abilities, affective abilities, interest and motivation (Gardner, 1983; McAlpine, 1996). The research is a qualitative study in which a multi category approach is used as the basis for the researcher's definition (Clark & Zimmerman, 1992). The potential to possess exceptional intelligences or abilities is investigated through work samples of children's drawings (Clark, 1989; 1995; 1996). The researcher uses observational methods to develop the structured process and collaborates with the work in progress, the potential of the child and the final artwork to determine the inclusion of a characteristic within the teacher observational profile. A culmination of these procedures provides a structured identification system and ensures an educational pathway for the development of future artists, inventors and artistic educators.

1.3 OVERVIEW

The researcher is an artist who has specific skills in drawing and has an extensive background in the teaching of the Visual Arts in primary, secondary and tertiary education. This provides a basis for the researcher to understand the processes involved when children are producing drawings. The experience of teaching children from a range of levels and socio-economic backgrounds provides knowledge on behaviours, characteristics, abilities, skills and levels of attainment. Over time, the researcher has observed, collected, analysed, and interpreted the outcomes displayed in children's drawings. The depth of this knowledge provides a source for building concepts and theories in the drawing discipline. It also contributes to a reflective understanding of gifted and talented children through the observation and provision of programmes in schools. The experience of the researcher forms a basis for the broad approach for the action research design.

Chapter two reviews the literature in the field and provides the necessary background and framework for the teacher observational profile in phase one. Chapter three describes the research process which is based on action research methods. The researcher developed a plan which focuses on observational methods and five phases to develop the profile. Chapter four describes the formation of the teacher observational profile based on the literature review. Two modifications of the teacher observational profile in relation to the pilot school are reported on in chapter five in phase two. Chapter six covers a comprehensive review carried out by a professional panel through a questionnaire process in phase three. Chapter seven sets out the trialing process to test

the teacher observational profile in phase four and analyses the data in phase five. In chapter eight the data is discussed in relation to the four research questions and the implications and limitations are outlined. Future research is suggested and some conclusions are reached.

CHAPTER TWO

GIFTED AND TALENTED IN THE VISUAL ARTS

> A gifted child observes acutely and has a vivid memory, is adept at handling problems requiring imagination, and is open to new experiences, yet can delve deeply into a limited area. The child takes art seriously and derives great personal satisfaction from the work. Indeed, the gifted child may sometimes be obsessive or compulsive about artwork often neglecting other areas of study for it (Gaitskell & Hurwitz, 1975, p. 388).

This chapter explores the concepts and processes involved in developing a teacher observation profile for gifted and talented children in the Visual Arts. The chapter focuses on research of general learning and Visual Art learning theories of gifted and talented children. Particular reference is made to research related to concepts and definitions, behaviours and characteristics, identification processes, and teacher attitudes and knowledge, which contribute to the development of a profile for identifying gifted and talented children in the Visual Arts.

The first section of the chapter explores literature which comes from general and Visual Arts concepts of giftedness. Culture, creativity, skills and abilities are discussed as contributing factors within a definition of gifted and talented children. A definition of gifted and talented children in the Visual Arts is formulated on the basis of the literature reviewed.

The second section of this chapter examines behaviours and characteristics which are investigated in relation to children's drawings. The differences in behaviours and characteristics between average and gifted and talented children in the Visual Arts are also examined.

Thirdly, the chapter examines the principles, methods, practices and special populations involved when developing nomination processes for teachers to use in schools. Structured nomination processes were identified in the literature as seldom used. Therefore, it was important to examine carefully this area of the research literature. Attitudes to the teaching of the Visual Arts include some misconceptions which can

affect the development of children working in this area. This is discussed in the fourth section of the chapter. Attitudes impact on the perceptions of teachers and their teaching of the Visual Arts therefore determining whether children are identified or not. The literature indicates a lack of instruments for profiling these children. The attitudes of teachers as revealed in the research literature indicates that the learning needs of these children are not being catered for in our classrooms. This cause for concern provides a strong justification for this research which is discussed in the fifth section of this chapter.

The five areas of this chapter summarise the findings of the literature examined and provide the basis for the research questions.

2.1 CONCEPTS AND DEFINITIONS

To identify students who are gifted and talented in the Visual Arts a clarification of definitions is required. However, a conclusive definition of what constitutes gifted and talented in the Visual Arts was not found. A set of definitions will be proposed based on existing literature and the researcher's views. The literature, coupled with observation by the researcher, has noted that issues of definition, identification and programming intertwine (McAlpine, 1996). Therefore the issues, although examined separately, are not to be viewed as mutually exclusive but as interrelated (Clark & Zimmerman, 1992).

In general learning theories, different terminology is used in the literature to describe children who are gifted and talented (McAlpine, 1996). The term *gifted* has historically referred to individuals who have superior intellectual abilities based on a single criterion and the term *talent* has referred to individuals who have displayed exceptional ability in a number of curriculum areas including the visual and performing arts (McAlpine & Moltzen, 1996). The researcher has observed teachers in schools defining *gifted* students in academic subjects and *talented* students when referring to the arts. Gagne (1985) made a similar distinction relating *giftedness* to natural abilities or intelligences and *talent* to outstanding human accomplishments.

The complexity of definition is exemplified in the variety of terms used to denote exceptional ability in students in New Zealand classrooms (Education Review Office, 1998). *Gifted and talented, very able, exceptional* and *students with special abilities* are

some of the terms used. Until recently, schools were not required by statute to provide for these students. However, attitudes have now changed at ministerial level. The New Zealand Ministry of Education has recently adopted the term 'gifted and talented' which has also been used for the purposes of this study (Ministry of Education, 2000).

The Art Education: Junior Classes to Form 7 (Ministry of Education, 1989) statement does not use the terms *gifted* or *talented* in the Visual Arts. The closest connection explained in this document is an implicit reference which states *students at any age can make effective artistic statements and respond to art works if they are working within their artistic maturity and conceptual grasp* (Department of Education, 1989, p.7). However, *The Arts in the New Zealand Curriculum* (2000) is explicit and informs educators that: *Gifted and talented students may demonstrate exceptional abilities in a wide range of art forms ... Schools should seek to identify such students as early as possible in their development ...* (Ministry of Education, 2000, p.105).

If the multi category approach is adopted, a higher portion of the school population could be recognised as being gifted and talented with special abilities. This would be somewhere between ten and fifteen percent, which extends the number and variety of special abilities found in gifted and talented children in schools. When *gifted* is identified with a single criterion it is based on IQ scores. This can limit *giftedness* and *talent* to a very small portion of the school population, that is somewhere between one and three percent (Ministry of Education, 2000).

A report from the Education Review Office (1998) on gifted and talented children complicates the multi categorical approach when it states that the visual and performing arts are included in the curriculum area of sport. The broadening of physical activity to include the arts does not necessarily develop children's artistic thinking or creative abilities. The sportsperson is not necessarily an accomplished artist; nor is the artist necessarily an accomplished athlete. Clarification of the Visual Arts as an area of giftedness must be sought through closer examination of multi categorical concepts of giftedness.

In *gifted* education the Marland Report (1972) was instrumental in developing the multi category approach. The report set out four significant factors within its definition. The

first factor referred to children who are identified by persons who are expert in their field. The second factor describes children who have outstanding abilities or are capable of exceptional performance. The third factor includes the visual and performing arts as one of the six areas where demonstration of abilities occur and the fourth factor advocates within the definition for differentiated programmes for children to realise their abilities.

The factors in the definition of the Marland Report (1972) emphasised dimensions which were not previously viewed as contributing to gifted and talented children or the enhancement of intelligence or special abilities (McAlpine, 1996). The swing from a single intelligence to the multi categorical concept was developed further in Gardner's (1983) theory of seven intelligences. Gardner (1993) has since developed his theory to include eight intelligences. In this theory, Spatial and Musical abilities are presented as separate intelligences. This implies that children who have special abilities in the spatial domain process information in non-verbal ways and therefore approach problems in different ways from other children (Gardner, 1983).

Within the spatial domain, Gardner (1989) alludes to the complexities involved in the separate development of the three areas of cognitive, affective and conative skills as they govern perceptual, productive and critical skills. The development in any one of these three skills proceeds separately during the years of a child's growth although the potential for a performance may be inert in one or all of them. Clark and Zimmerman (1992) concur with Gardner (1989) explaining that these traits may not be present to the same degree in any student at any given time. McCaughey (1997) also concurs with Gardner (1989) when considering the domains of intelligences developing at varying rates or advancing in one area more than another. Children who display exceptional drawing abilities may not be as able at painting, or may possess a different set of abilities to children who have abilities in sculpture. Although each domain does not necessarily develop independently of the other, children who have an executive skill in drawing could be latent in the area of painting or vice versa.

The researcher has viewed children, when performing to an exceptional level in the Visual Arts requiring and exhibiting a number of general learning abilities. For example a graphic designer needs to use mathematics, language, spatial and personal skills in

addition to the specialised Visual Art abilities. Intelligence needed for achievement is clearly not defined as a 'single intelligence' but is a phenomenon that contains a multiplicity of intelligences or abilities (Clark & Zimmerman, 1998; McAlpine, 1996).

The multi category approach has not only challenged the concept of gifted but the notion of intelligence (Ministry of Education, 2000). Lemonick (1999) considers memory systems in our brain are engaged in different roles which have an effect on intelligence. Most functions, from perception to thinking, draw continuously from memory systems. Clark (1997) sees the development of the brain as central to giftedness. She indicates that high intelligence is an acceleration of all brain functions of an individual. This denotes acceleration of the memory systems in the brain thus creating a high level of intelligence. Acceleration in the Visual Arts does occur in the development of children's artwork. This is displayed in drawing activities when children progress from the pre-schematic stage to the true-to-life appearance of objects. This is a manifestation expressed as an intelligent outcome (Clark, 1997). The intelligent outcome is determined by the functioning of the brain.

The brain is divided into the left and right hemispheres (Edwards, 1985). These are linked by the central nervous system, which crosses over the left hemisphere to control the right side of the body and the right hemisphere to control the left side of the body. Both hemispheres use high-level cognitive modes, which although different, involve thinking, reasoning and complex mental functioning. Each hemisphere collects sensory information and handles the information in different ways. The task may be divided between the two hemispheres each handling the section suitable to its style or function or the dominant hemisphere will take over and inhibit the other. The left hemisphere analyses, abstracts, counts, marks time, plans, verbalises, makes rational statements based on logic. The right hemisphere is known to be nonverbal, without a sense of time, spatial, intuitive, holistic, non-rational, analogic, concrete and able to synthesise information. It is the right hemisphere where we 'see' things that may be imaginary or recall items that may be real or see items that exist in space that combine to make a drawing or artwork. It is the right hemisphere that allows one to dream, understand metaphors, use intuition and create new combinations of ideas and concepts. Edwards (1985) argues that after early childhood most individuals develop the left hemisphere of their brain at the expense of the visual side of their brain.

The capacity of the brain to visualise an image as if it were there is the essence of producing a drawing. To produce a drawing on paper, a child looks at the item, makes a mental picture of the item, stores the image in the memory systems, looks down at the paper and proceeds to draw the item. Edwards (1985) concedes that since drawing is largely the function of the right hemisphere then one must keep the left-brain out of art making. The capacity of the left brain to dominate, to be hasty with words and symbols and take over functions that it is ill suited to, can be detrimental to one's creativity.

The intelligence quotient is predictive of other behaviours related to intelligence. An IQ reflects a person's genetic and environmental background (Plomin, 1997). The IQ is enhanced or inhibited by the interaction between the genetic pattern and the opportunities provided by a responsive learning environment (Clark, 1997; Clark & Zimmerman, 1984; Moltzen, 1996). Imbedded within the biological source is a genetic pattern, within intelligence, which gifted and talented children possess to a greater degree than their non-gifted peers (McAlpine & Moltzen, 1996). Plomin (1997) found intelligence runs in families and suggests that verbal and spatial abilities are more genetic in character than other broad factors such as memory.

Heredity accounts for familial resemblance in genetically related children. Environmental influences relevant to cognitive development may make children in the same family different. One child from a family could have an artistic environment depending on the child's teacher and another child from the same family may have teachers who provide influence in other artistic pursuits or curriculum areas. Both children may have high intelligence and display artistic characteristics but their artistic characteristics could differ depending on their environmental influences (Plomin, 1997).

In the past, art education researchers have speculated that talent in the Visual Arts, like intelligence, is probably distributed normally (Lark-Horovitz, Lewis & Luca, 1973; Lark-Horovitz & Norton, 1959). Clark and Zimmerman (1984; 1992) argued that individuals with exceptional artistic abilities would be at the upper end of the intelligence distribution while those with below average artistic abilities would be at the lower end of the intelligence distribution. Clark and Zimmerman (1984) created an art education framework to report on completed research, relative to art talent as a normally distributed concept. Their "naïve" to "sophisticated" content model, is superimposed

over a normal distribution rating. Thus the standard deviations are seen to describe parallels of development in art talent comparable to intelligence.

Certainly observational practices have revealed to the researcher varying amounts of artistry and intelligence within children's artwork. Differences in drawing skill and art behaviours of highly able and less able children are differences in degree and not in kind. Children develop their own style when making art but some children develop a richer style than others (Clark & Zimmerman, 1984; 1992).

Influencing the Definition

With any definition of gifted and talented one must consider the culture in which the definition will be applied. The researcher has observed that the concept and language used must be sensitive and appropriate to the culture. For example, what is viewed as talent in one culture may not be viewed as talent in another. The ability to work with fibre in one culture or carve exquisite carvings in another may exclude realistic drawing in yet another. Children who are gifted and talented in the Visual Arts are dependent upon instruction about art forms that can be communicated effectively within their cultures. Children therefore can only be identified as gifted and talented within the appropriate cultural context (Gallagher & Gallagher, 1994). The customary practice in many societies has restricted gender to particular art forms. Traditionally, the role of women has been to fashion and weave garments, whereas men have carved and fashioned tools and instruments. The changing environment has blurred many of these boundaries, providing a new role for gender in some societies, which changes the perspective and future for the gifted and talented child.

Within the New Zealand culture, *The Art Education: Junior Classes to Form 7* (1989) syllabus defines art, "as all such actions and relationships in which people respond to in making art and the value art has within their culture". When defining the Visual Arts, Khatena (1979) considers them to mean *drawing, painting, sculpture, designing and related art forms that appeal to the eye* (p. 735). *The Arts in the New Zealand Curriculum* (2000) statement, replaces the term *art* with Visual Arts. Visual Arts in this document is defined as painting, sculpture, printmaking, design, photography, film and video, computer-generated art, performance art and combinations of these forms and their media. In this statement, the Visual Arts are the manifestation and reflection of

cultural contexts, which link the social, cultural and spiritual interactions, breaking down the traditional boundaries between the various areas of the Visual Arts. The former statement sets out a syllabus solely for the Visual Arts, whereas the current statement is a curriculum for Drama, Dance, Music and The Visual Arts. Both statements are broad and reflect Gardner's (1983) multi category concept of being responsive to the many sensitivities and special abilities significant within cultural contexts.

As well as the cultural considerations influencing each definition, the role of creativity is connected to art talent (Khatena, 1979; Sternberg, 1988; Torrance, 1984). Fraser (1998) sees creativity, like gifted and talented, has many definitions. How it is defined depends on whether the focus is on who is being creative, on the process of creativity, or on the creative product or the environment in which creativity occurs. The researcher has observed in children's artwork that creativity is about the unusual, being exploratory and insightful, inventive and imaginative, using initiative and thinking laterally, creating or recreating a new process or product, in other words being unique and original.

Renzulli's (1986) definition placed creativity within his concept of giftedness. His model requires all three inter-linking components; creativity, task commitment and above average intelligence in the creation of giftedness and talent. Davis and Rimm's (1994) definition also argued for creativity to be central to the education of gifted and talented children. Within these concepts creativity is defined in relation to fluency, flexibility, originality and elaboration.

Torrance (1984) devised tests of creativity based on these four criteria. Fraser (1998) argues that any of these criteria make creativity more explicit and all four give a substantial basis for it. Khatena (1982) explained a number of tests, checklists, questionnaires and inventories used to identify creative individuals that were based on operational definitions of creativity. Khatena and Morse's *Multitalent Perception Inventory* (1987), was based on the concept of exceptional individuals shown to be versatile in their talents. This inventory includes creative talent based on the perceptions of past experiences of individuals.

Lowenfeld and Brittain (1964; 1987) considered that a prime objective in an art programme is to develop a creative thinker. The student involved in the cognitive process of making art is able to compose, develop, extend and synthesise concepts and ideas in art media and produce new and original artwork. When producing a drawing, children may show multiple perspectives in the construction. The teacher may view this as being creative, inventive or outstanding. Creativity in this sense is the creative process, which is what happens in the artist's mind when they are creating artwork. This is not to be confused with a creative act. If a creative act is to be original the act or the product must be qualitatively different from any other artwork or from any other creative product (Clark & Zimmerman, 1992).

Lowenfeld and Brittain (1987) describe two types of creative development found in children's drawing and painting: the visual and the haptic or non-visual. The visual child responds to the world through visual stimuli and the haptic child responds to the world through tactile, sensory stimuli as well as possessing an empathetic view of the world. The drawings projected by visual children are usually accurate in proportion and spatial representation, and display perceptual organisation. The haptic child enlarges aspects important to them in a drawing and reduces or eliminates areas that are unimportant, thus conceptualising aspects of the external environment. If visual representation is viewed as the only acceptable criteria then haptic children may be considered lacking in artistic ability. However, a gifted and talented child in the Visual Arts may use one or both orientations to an exceptional degree.

It is reasonable to assume that evidence of creativity is more visually apparent in any artwork. Creativity may be manifested in well developed drawing abilities, high cognitive abilities and affective intensity. These abilities along with interest and motivation may be indicators of gifted and talented children and are factors that could be included in the dimensions of the definition (Clark, 1989).

Szekely (1981) discussed two separate indicators of giftedness and talent in the Visual Arts that could be identified. The first indicator he cited was above average skills observed in children who could produce drawings to an advanced level. These were children who were not reliant on formulae or copying, but had advanced to the true-to-life appearance of objects beyond the norm of their peers. The second indicator

observed in children were those capable of generating original ideas, inventions and innovations in their artwork but who exhibited less skill in their art making. Szekely (1981) failed to comment on children who were able to combine both traits. A third trait investigated by Stalker (1981) was affective intensity. She concluded that affective intensity referred to behaviours requiring strong emotional responses linked to motivation and perseverance. These were seen as essential for achievement because of the obstacles and problems accompanying an artist in this type of career. Stalker (1981) included in her definition cognitive complexity; this is defined as the ability to generate many solutions to problems, and the executive skill of drawing; which is the essence of all Visual Arts. She concurs with Getzels and Csikszenthemihayi (1976) and Nicolaides (1979) who defined the aptitude to draw as requiring less time to achieve mastery of an executive task and in doing so, allowing more time to proceed to greater levels of mastery. Stalker's (1981) third trait of affective intensity responds to reactions of emotions and feelings and the ability to make judgments about them. Seeley (1996) considers the possibility of a whole range of human potential in the Visual Arts through a transferral process occurring between emotional and intellectual traits.

Meier (1939) attributed artistic skill to six factors. He considered three of the factors to be derived from genetic endowment: manual skill, energy and aesthetic intelligence, and three factors could be ascribed to nurture: perceptual facility, creative imagination, and aesthetic judgment. If artistic ability were a process of interaction between heredity and the environment one could assume that, in the absence of inherited traits, nurture by itself would not be effective. The energy factor could arguably be a component of either heredity or the environmental setting. Meier's (1939) six factors have been observed in individuals involved in music as well as other arts. These factors have been seen to apply to individuals who are not necessarily involved in the creating of artwork but are otherwise knowledgeable and discriminating in the Visual Arts.

Munro, Lark-Horovitz and Barnhart (1942) found in their studies of artistically gifted and talented children that a *gradual stepping up* occurred involving a number of related abilities. This concurs with the facility to experience things visually as well as to represent and symbolise various types of experiences in visual terms. This implies interpreting the world in visual images rather than by verbal languages.

Hartlaub, an art historian at the turn of the twentieth century, cited differences between children's motor responses to their perceptual experiences as a factor differentiating between the average and the exceptional child. He considered the degree of difficulty for the average child to capture a visual image was greater than a gifted and talented child who had the ability to be able to concentrate for periods of time on visual aspects. He speculated that the average child's visual concepts were not precise enough in their observations and were dominated by various abstractions (Lark-Horovitz, Lewis & Luca, 1973).

Whether or not notable artists went through the known schematic stages of development in their drawing can only be assumed, as preservation of their early artwork has not been available for verification of this theory. However, a drawing attributed to Sargent (1856-1925) at the age of four, shows the schematic stage, which this artist graduated through in later work (Lark-Horovitz, Lewis & Luca, 1973). The researcher considers that the developmental process in the childhood of some well-known artists must have been very accelerated indeed.

Most gifted and talented children can rid themselves of the limitations of the schematic stage in two ways. They can remain in the schematic stage and develop order, clarity and the richness often seen in primitive art. Alternatively, they may continue past this stage to develop into a visually dominant realistic representational style describing in detail the photographic appearance of actual items. Although special ability in the Visual Arts can be identified in this manner, a proven explanation of why these differences occur remains elusive (Lark-Horovitz, Lewis & Luca, 1973).

According to Lark-Horovitz, Lewis and Luca (1973) there are three ways in which artistic skill may manifest itself:

1. Through acceleration of development and technical skill; or
2. An awareness of artistic form and quality at a very early age; or
3. A very skilful adaptation of existing art styles in preadolescence.

Firstly, accelerated development and facility in creating true-to-life appearance of items has been observed in children's art since early in the twentieth century. Children who display this trait in their artwork usually pass through the schematic stage quickly. Their

graphic vocabulary is rich and their understanding of spatial relationships is clear. The ability to reproduce observed items with true-to-life photographic precision is suggestive of western artists who work in a realistic style. Children working in this mode by the age of eleven or earlier have entered into the adult realm of concepts and performance.

Secondly, some gifted and talented children, who may still be within the schematic stage, produce art works of strong aesthetic appeal which display decorative qualities. The aesthetic appeal is evident from a clear understanding of colour, line, tone and shape combined with a skill in handling media and technique. The aesthetic appeal results from the integration of all these characteristics, which is not in any way reminiscent of the true-to-life appearance of items. Occasionally, one may observe items such as plants, animals and fish, which intertwine with this decorative beauty in a style that appeals to the senses (Richardson, 1973).

Thirdly, the gifted and talented preadolescent expresses ideas and observations in an abstract manner, which derives from current influences such as graphic images and artistic styles. These influences could be perceived as environmentally impacting on the child from the outside, in. The child influenced in this way, develops a personal mode of expression. It is not uncommon to observe incredible perseverance with line and tone, especially with the biro, to produce symbolic references to personal beliefs, social problems and spatial odysseys (Gardner, 1980; 1982; Wilson & Wilson, 1982). These perceptions and products could well be development from the inside, out (Lark-Horovitz, Lewis & Luca, 1973).

Popular styles of appeal to children are cartoon characters which come from Pop Art and artists such as Dali who use surrealist fantasies in their artwork. The work produced from these preadolescent artists combine complex fantasies with technical facility of exceptional aesthetic character.

Proposing a Definition

When reviewing the concept of the gifted and talented in the literature the issues affecting definition are seen to be complex and indeterminable. For the purpose of this research a definition is proposed based on a concept that is appropriate to the

educational setting in which the teacher observational profile will be used. The definition is constructed on the multi category concept of giftedness, linking with the theories of multiple intelligences (Gardner, 1983; Marland, 1972; Renzulli & Reis, 1986) and abilities (McAlpine, 1996). This approach runs parallel with the multi cultural awareness and sensitivities within the New Zealand classroom settings (Bevan-Brown, 1996; Department of Education, 1989; McAlpine, 1996; Ministry of Education, 2000).

The multi category definition adopted for the purpose of this research for children in New Zealand primary schools is:

> " Gifted and Talented children in the Visual Arts display the behaviours of above average ability, task commitment and creativity to a degree of difference from their peers, which necessitates a differentiated educational programme incorporating enrichment and acceleration".

The three-ring model of Renzulli and Reis (1986) emphasises above average ability, task commitment and creativity. This is viewed as an appropriate model by the researcher. Above average ability is viewed as including general and specific learning abilities. General learning abilities refer to the exceptional levels of abstract and non-verbal thinking, spatial relationships, and the functions of the memory; whereas specific learning abilities refer to the specialised areas of knowledge and human performance, which encompasses the Visual Arts. The commitment given to the task involves perseverance and motivation to excel with ideas, concepts and skills therefore being able to create unique artwork. Creativity involves fluency, flexibility, elaboration and originality of thought by which to produce novel and effective solutions to problems (McAlpine, 1996). The advantage of this concept of giftedness is not only the integrated and systematic approach, including the identification of gifted behaviour, but also the inclusion of differentiated programmes for this group of children.

When considering the use of the phrase 'gifted and talented' in the definition, Clark and Zimmerman (1992) include the term artistically along with gifted and talented, to define their view of possessing high ability in the Visual Arts. Thus they refer to the 'artistically gifted and talented'. They argue that art educationalists make a false distinction between *giftedness*, which they associate with intelligence and *talent,* which

represents the *other types of skills or aptitudes* (p. 3). By linking them together and not differentiating between them, Clark and Zimmerman (1992) emphasise their *interdependence* (p. 4) thus placing art on an equal footing with gifted and talented children in academic subjects. This argues against relegating the arts to being merely technical or creative or independent of intelligence. If all children have some level of art *talent* then the term *artistically gifted and talented* describes a child identified as possessing high ability in the Visual Arts. However, the researcher views the word *artistic* as superfluous to the definition of gifted and talented in the Visual Arts as it is reiterating the same concept implicit in the term *gifted and talented* which signals the exceptional end of the continuum. *Artistic* is used to explain the natural skill a student exhibits in the Visual Arts, but not necessarily to an exceptional level.

2.2 BEHAVIOURS AND CHARACTERISTICS

As well as defining what a gifted and talented child might be in the Visual Arts, it is important to consider the apparent behaviours and characteristics that profile these children. Within the Visual Arts research, the *work sample* process (Clark & Zimmerman, 1983) has provided evidence of abilities and the demonstration of exceptionalities. The *work sample* process has used drawing as a basis from which to conduct an examination into children's artwork (Clark, 1989; 1995). Drawing is seen as a correlation between a multiplicity of skills and abilities (Munro, Lark-Horovitz & Barnhardt, 1942; Eisner, 1972; Getzels & Csikszentmihalyi, 1976; Goodnow, 1977; Stalker, 1981; Wilson & Wilson, 1982; Clark & Zimmerman, 1992). Therefore, an examination into children's drawing will provide the vehicle to investigate the behaviours and characteristics of gifted and talented children.

Drawing is viewed as the easiest mode of the Visual Arts through which to administer and measure exceptionalities (Clark, 1989; 1995). It is also viewed as being foundational to all aspects of the Visual Arts (Munro, Lark-Horovitz & Barnhardt, 1942; Getzels & Csikszentmihalyi, 1976; Goodnow, 1977; Stalker, 1981; Wilson & Wilson, 1982; DiLeo, 1977). DiLeo (1977) pointed out that as children become older, other forms of self-expression often replace drawing, but gifted children will persevere with drawing. When investigating the recommendation by DiLeo (1977) that drawing is a suitable task for the identification of children who are gifted and talented in the Visual Arts, Edwards (1985) described drawing as:

> More than learning the skill of how to draw - the technique is about processing visual information differently from the way you usually process information - the role the brain plays. Special properties of the brain enable us to draw pictures of our perceptions (p. 3).

Using Edwards' (1985) description of drawing implies that children who are gifted and talented would display more individualisation of character in their drawing. This therefore, also implies acceleration of growth. Drawings from these children would reveal details of objects that demonstrate true-to-life appearance of items well beyond a normal level. Astute observation, development of fine motor skills, storage of visual information, technical skill and use of media are some of the characteristics which contribute to an understanding of pictorial space in children's drawings approaching adult levels of art. The desire to produce art is usually compulsive in these children, whereas other children just as eagerly play or delve into other areas of interest (Lark-Horovitz, Lewis & Luca, 1973). In a description about the perceptive ability of the younger child, Wilson, Hurwitz and Wilson (1987) discuss the child who is compulsive about producing drawings.

> Drawing as fun: it gives pleasure; it's a form of play- a unique one because it leaves a graphic record of all the playing (p. 9).

Drawing occurs for many reasons and like any Visual Arts activity, drawing can provide an emotional and expressive outlet for young children in their artwork (Wilson, Hurwitz & Wilson, 1987). As a child plays with a pen or moves a pencil across the page the senses are incited into action. Seeing a line appear on a page possesses a magic which draws a child into a wonderful world full of promise, imagination and expression. As the child jumps into the puddle of water or throws the ball, the corresponding image becomes a graphic record of the play (Wilson, Hurwitz & Wilson, 1987). Captivated by this experience of motion and play, the graphic record is transferred through the scribble or drawing process and extends past the mere act of making marks on paper. Expressing oneself through drawing is not unlike the need to laugh when happy or shouting when angry (Lark-Horovitz, Lewis & Luca, 1973). Expressiveness observed in many drawings of young children between the ages of five and seven years could well be the process for future artistry (Gardner, 1980).

Children's drawings in a sense are either re-creations of their own environments, or extensions, recombinations, modifications and reactions to environments already created (Gardner, 1982). Knowledge of their own environment is mainly derived from symbolic sources rather than from direct perceptions of items or events (Wilson, Hurwitz & Wilson, 1987). Dover, Rowe, Thomson and Turner (1987) explain when children's drawings originate from artistic work they are products of images seen or experienced from previous artwork. These can come from television, magazines, children's books, comics, signs, videos, films, photographs and slides which children draw on to enrich and learn about their visual culture.

Fredette (1995) argues for children's graphic expressions to be defined as drawings in visual thinking, whereas Goodnow (1977) distinguishes children's graphic work as visible thinking. Drawing is not to be viewed as an automatic printout of the child's environment. What is seen or intended by the child is *translated* into the action of drawing. One must probe beneath the surface to understand how this translation takes place. Drawings give insightful information about aspects of human development and skill. They are a vehicle for cognitive processing of thought and problem solving, as well as a means of communication (Goodnow, 1977).

Cognitive activity in visual thinking is a form of reasoning in which perception and thinking are interrelated. This challenges the assumption that intelligence is a matter of thought. Perception and thinking interact with our thoughts and influence what we see and vice versa (Arnheim, 1969). Arnheim (1969) believes there is no difference between a child looking at the world and when they sit and think about it with their eyes closed. He sees drawing not as a replica of the child's world but rather as an equivalent of the original world. The units, selected by the child to make the drawing, are based on the structure of the original. If a human figure is being drawn, this is translated into a vertical drawing, the principle being based on a vertical axis. The horizontal principle of the human figure is not as evident and therefore does not appear in children's drawings.

Children are economic and repetitive in their methods for both simple and complex drawings up to the age of seven. For example, the same unit is used for arms and legs and can be viewed in varying sizes and proportions. This achieves a unity and displays all the functions of conceptualisation. Over time, children develop old objects and draw

them in new ways. New equivalents come about through new modifications and re-creations (Arnheim, 1969; Goodnow, 1977).

In these modifications and re-creations drawing media such as paint, ink, crayon, pastel, biro and pencil all create different effects. Media selected for a drawing influence the units and equivalents. When making a pencil drawing a fine network of lines can describe the qualities of the subject. A subject painted with a brush will create blobs and lines which become thick and often transcribe into areas rather than lines (Lark-Horovitz, Lewis & Luca, 1973).

Sounds and gestures join configurations and combine with symbol systems to present ideas about the world. These models of the world take the form of words, numbers, diagrams, plans, formulae, gestures, drawings and pictorial matter. Drawing as a visual communication, when compared with oral or written information, has an advantage. Words often have no similarity to the objects or ideas of our experience and are strung together in a syntactical order to make sense. Our spoken words disappear into air as quickly as they are uttered, unless recorded by written or spoken means. Drawings have an isomorphic quality similar to an observed experience. A drawing of a cat generally displays some structural similarities to a cat. Whereas the word 'cat' when uttered is only a reference and bears no concrete representation to the information. A drawing of a cat may contain information about the physical appearance showing the features of the cat, colour, markings, fur, size, actions and context. The researcher acknowledges that representations of a drawn cat can bear no resemblance to the actual appearance, behaviour and characteristics depending on the style of the artist's work. Pictorial representation does have a structure in which images have a relationship with one another but it appears more flexible than verbal language. Drawings, along with all pictorial matter, leave a semi-permanent record that allows the creator to return to the image from time to time (Wilson, Hurwitz & Wilson, 1987).

To communicate through visual thinking depends on the commitment and desire of the child. If the child develops the necessary characteristics of visual memory, observation, imagination, originality, motor skills and graphic and aesthetic qualities they will express themselves through visual means. Without the desire to communicate visually

children are unlikely to achieve beyond normal means of graphic development (Wilson, Hurwitz & Wilson, 1987; Fredette, 1995; Fredette & Hunter, 1993).

However, Hubbard (1989) believes that children's drawings can be examined early in their lives for outstanding attributes of visual thinking. Gardner (1982) provided an example of this in an exceptional child who accelerated through the developmental stages to the true-to-life appearance of objects. This child produced incredible drawings of animals at the age of three, rather reminiscent of those produced by an adult artist. Fredette (1993) gave a similar view of an eight year old child whose teachers were unaware of the child's artistic pursuits of drawing, painting and the making of items. The researcher considers this could be a common occurrence in classrooms if the teaching of Visual Arts is not a priority.

Children who display exceptional ability at an early age are not necessarily destined to become artists (Lark-Horovitz, Lewis & Luca, 1973). When examining children's drawings, Hubbard (1989) found they often revealed similarities to folk art. Bloom (1985) claims that students manifest knowledge and skills in the arts at different ages and grade levels and that a specialised knowledge about an art area can be mistaken for *real* talent. Clark and Zimmerman (1992) support this view explaining maturity is necessary before a student can perform at levels exceptional to their peer group.

Drawing is generally viewed as being connected to stages of development and not necessarily connected to age (Lark-Horovitz, Lewis & Luca, 1973; Goodnow, 1977; Gardner, 1980; Wilson & Wilson, 1982; Clark & Zimmerman, 1992). When categorising children's drawings into stages of development, observers are looking for exemplary uses of visual thinking and visual literacy to identify the gifted and talented in the Visual Arts (Fredette, 1995).

Isenberg and Jalongo (1997) categorise children's stages of development into two distinct groups. The first stage of children's drawings is categorised into the non-representational group, which is defined as not representing the appearance of an item. The second stage is broadly categorised into the representational group, which defines drawings as resembling the appearance of items depicted.

The first stage begins with making marks as the first sign of drawing. Once a young child can hold a drawing tool, motor action begins and marks appear. These first marks do not have any purpose or meaning but eventually develop into scribbles and circular movements. Through continual repetition and refinement the child makes controlled diagrams. These are made up of circles referred to as mandalas along with some rectangular and triangular shapes which are intersected with lines or crosses. These diagrams are symbols which are repeated into organised designs in which the child starts naming the items. The exclamation of "that's my house with the garden around it" or "that is my gate where I play with my friend" describes the drawing activity (Kellogg, 1970; Isenberg & Jalongo, 1997).

Inclusive in the second stage of representation is the schematic stage whereby items are represented according to their appearance (Kellogg, 1970; Wilson & Wilson, 1982). When outlining seven principles that occur in the schematic stage, explain how they are visualised in children's drawings.

1. The simplicity principle

   This principle is apparent when the child depicts a person, animal or item in a simplistic manner. The item barely resembles the appearance of the item.

2. The perpendicular principle

   This occurs when the child creates contrasts between parts of the drawing. Figures stand with their arms outstretched and buildings lean on their sides.

3. The territorial imperative principle

   This occurs when the child places each part of their drawing in its own space. Each item in the drawing sits beside another. Size and proportions are not adhered to and perspective and overlapping items do not occur.

4. The fill-the-format principle

   This is displayed when the child extends shapes and adds additional parts to fill the available space. Extra fingers may be added to fit the hand in the drawing or the body of an animal may have several legs.

5. The conservation and multiple application principle

   This is revealed when a child repeats the same symbol in a variety of ways. The limited vocabulary of symbols acquired serves many uses. The head of a human is a common symbol used in the sun, or in the head of an animal or bird.

6. The draw-everything principle

   The child draws all that is known about their subject matter and often from several viewpoints. Drawings may show the inside and outside of the house and the car. Tables and chairs are shown from the side and the top.

7. The plastic principle

   The child exaggerates important items, persons and actions in their drawings. The importance of the father will be drawn larger than other items. A shoe on a foot will be drawn larger than the leg.

Several of the principles may work at the same time in a drawing, although not all of the principles are applied all of the time and some may have priority over others in particular drawings. Children at different levels of development apply the principles differently (Dover, Rowe, Thomson & Turner, 1987).

More General Characteristics of Gifted and Talented Children in the Visual Arts

Gifted and talented children are not shown to differ from average children in other general aspects of their childhood, apart from their particular ability demonstrated in Visual Art. Lark-Horovitz and Barnhardt (1942) in their study of children's artwork categorised the results into groupings of "special and average" (p. 110). Reporting the difference between the average and the gifted and talented child or special and remarkable is that they demonstrate their ability to a greater level than others and experience it in a manner not available to others. One needs to be aware that a gifted and talented child is not only advanced in their art but their art is different from their peer group (Lark-Horovitz & Norton ,1959; Lark-Horovitz, Lewis & Luca, 1973).

Choice of subject matter in artwork remains similar, irrespective of ability, and is related to interests that are topical at various ages. It is the approach and treatment of the subject matter that differs between abilities. Children in the schematic stage draw from mental images or from their memory, whereas gifted and talented children possess a richer storehouse of images and present a unique and individualistic approach which clearly distinguishes them from the average child (Isenberg & Jalonga, 1997; Lark-Horovitz, Lewis & Luca, 1973).

Children operating in the true-to-life mode display more variety in their choice of subject whereas average children working in this mode, or at an earlier stage, work with fewer subjects because of their inability to present objects to their satisfaction. The gifted and talented child does not experience this difficulty and will investigate a greater variety within the subject area with comparative ease. As the average child's repertoire of images is limited by comparison, it will not overcome this difficulty. This inability to express ideas through visual means prompts words and other non-pictorial symbols into action. In the struggle to express adequate intentions the child becomes more reliant on written language. When this occurs, the visual language not only fails to progress but can plateau or wither away. By contrast, children who think in images and symbols increase their visual vocabulary, developing to the true-to-life stage much earlier than the average child (Munro, Lark-Horovitz & Barnhart, 1942).

Imagination, in the view of Lark-Horovitz, Lewis and Luca (1973), is the vital aspect of creativity. The gifted and talented child possesses this characteristic to an exceptional degree by being productive and original in their fantasies and ideas. The portrayal of fantasies depends on the richness of the visual concepts stored in the mind and the ability to manipulate these to express ideas in visual form. This approach could arguably refer to any art making, not only fantasies. The same definition could apply to the ability of a child to store ideas, observe information of any type and, through the manipulation of ideas and media, produce a unique art product in which fantasising does not occur.

The representation of movement in their drawings is developed more in the gifted and talented child than the average child. This occurs partly because of acceleration in a child's skill development. An example the researcher has observed was a group of twelve year old children who articulated the visual sensation of movement in their yacht drawings by demonstrating the yacht moving along in the water. The water flowed and rippled and sails billowed in the breeze whereas the average child at the schematic stage usually attempts to bring movement into a static drawing by accentuating a single direction. A static decorativeness prevails rather than a sense of movement (Gardner, 1980; 1982; Lark-Horovitz, Lewis & Luca, 1973; Lowenfeld & Brittain, 1964).

Gifted and talented children consciously plan and compose with horizon lines and subject matter when making an artwork. Average children at the schematic stage align subject matter to a ground line. The degree of difficulty in grouping more than one object in an artwork, although often achieved at the schematic stage, is not always retained as the child's development progresses (Lark-Horovitz, Lewis & Luca, 1973). Observation by the researcher has shown that in the schematic stage, grouping of objects is often achieved through bilateral symmetry along ground lines in an artwork. Average and sometimes gifted and talented children favour symmetrical grouping. However, the difference for the gifted and talented child is shown to be a conscious and deliberate decision of where subject matter is to be placed within the picture space. This conscious planning, to achieve almost indirect equalisation of balanced asymmetry or symmetry in their artwork, is very subtle (Lark-Horovitz & Norton, 1959).

Children favour strong colour, particularly young children. Experience by the researcher has shown that children not only focus on bright and brilliant colours but like to contrast colours. Warm colours of red, yellow or orange are usually contrasted with blue. At all stages of development children are conscious of colour representing particular subject matter. The sky is blue, the grass is green and the teddy is yellow. The mixture of colours requiring subtlety is a challenge for many children, but it is the gifted and talented child who can mix a range of colours to achieve the colour of the skin or see and paint the differences in the colours and tones of the bush. As the child progresses towards thirteen this flair for colour often diminishes and the tendency is towards a monochromatic approach to artwork (Lark-Horovitz, Lewis & Luca, 1973).

All children manipulate media onto paper. The average child uses a pencil to achieve a consistency similar in all drawings whereas a gifted and talented child explores and extends the possibilities of making marks on paper. The exceptional child examines new dimensions as compared to the average child who stays in a comfort zone not venturing further (Lark-Horovitz, Lewis & Luca, 1973).

Up to the age of eleven, children explore and experiment with media without hesitation. As they grow they may become more hesitant to explore different media. However, gifted and talented children continue to explore media, materials and techniques. They become aware of the limits and possibilities of media, discriminating between ways of

achieving boldness and subtlety of line, tone and texture. They thoroughly understand the nature and properties of media and its functions (Lark-Horovitz, Lewis & Luca, 1973).

Individuals pursue subject matter that is of interest to them. Experience and observation by the researcher has shown that gifted and talented children pursue subject matter that is often more complex, challenging and provocative than average children. They challenge emotions and patterns of interest which go beyond likes and dislikes, interrelating with styles and influences that are insightful and applicable to their own work. Where the average child will draw the face of the cat, the gifted and talented child will draw the body of the cat seen from many different viewpoints and their images are more appropriate to pictorial representation. Although children observe and use language to describe what they have seen in the same subject matter, the gifted and talented child is more discriminating and visually orientated (Lark-Horovitz, Lewis & Luca, 1973).

The first visual impressions for gifted and talented children are perceived precisely in form and colour with further impressions strengthening and reinforcing the initial images. Selective images are made from observation over time and with experience proceed to strengthen within the visual memory. The interplay between selective observation and the visual memory is a strong factor in gifted and talented children. This, combined with a vivid imagination, gives the ability to retain impressions seen over a period of time. Individuals of average ability will remember and articulate impressions over periods of time describing what they saw and remembered as if they were 'real'. Their recollection of the event is a combination of impressions seen, heard, felt or experienced physically. The gifted and talented child recalls very aptly a visual image with incredible detail (Lark-Horovitz, Lewis & Luca, 1973).

Gifted and talented children are aware of what they can select from their environment as well as possessing a rich store of images gathered from their curiosity of the pictorial world. This genuine desire to learn either independently or under supervision is constant. They seek instructions and explanations from books, internet, videos, photographs, authentic art works and places. They are also continually analysing pictorial information and experimenting with influences and ideas.

The researcher has observed that very young children do not seek instruction but work independently, absorbed in their world of expression. Older children, although they want to learn, like to be shown almost in an imitative way what they are unable to decipher on their own. This type of learning characteristic of the average child is not retained. The gifted and talented child delves deeply into a gap in their knowledge until understanding is achieved. Their learning style is to understand by building on their resources, not by imitating.

Communicating, expressing or seeking pleasure is how the average child uses art, whereas for the gifted and talented child art is a serious affair. The younger child is forever painting and drawing and as they become older their experiments and discoveries become more earnest and absorbing. The average child repeats what they consider is successful whereas the gifted and talented child continuously strives for more adequate means of expression. They become more responsive to unusual subject matter, a source of stimulation and influence in their work. Some children centre on a particular subject matter and perfect it. They neglect other subject matter and can only be exceptional in the subject in which they have excelled. They become outstanding in their draughtsman qualities equivalent to any adult, but lack the ability to be multi skilled in their artwork (Lark-Horovitz, Lewis & Luca, 1973).

By the very nature of the art making process, the customary emphasis has been placed on the outcomes being either a product or performance in the Visual Arts. At all levels of children's schooling, a heavy reliance has been placed on evaluating and assessing the completed artwork. In New Zealand the current political thinking emphasises assessment as a means of ensuring that children achieve to adequate levels. The political climate places greater focus on the end product rather than taking a holistic educational view. The researcher considers that ability to create an exceptional product or to perform in a distinguished manner can highlight criteria, which may not recognise the range of behaviours, skills and abilities that contribute to the successful outcome.

Gallagher and Gallagher (1994) claim that a general trend in the education of gifted and talented children is an emphasis on the actual product rather than on measuring 'aptitude' or 'potential'. Runco (1997) sees achievement becoming problematic as individuals express their ideas and work in a manner that convinces others of its value

and they need a product to do this. For example, a child can accidentally create a single exceptional product. This does not occur if children are productive over time or if they produce exceptional artwork on a regular basis.

Feldman (1991) claims that talent in music or mathematics will emerge earlier in children and is more accessible than in the Visual Arts. Although a very small minority of gifted and talented children in the Visual Arts have been identified as prodigies, very few produce works of genius. A prodigy is a child who performs to an extremely exceptional level within a specific field at a very early age (Feldman, 1991). Movement through levels of expertise occurs in music but is less evident in the Visual Arts. Feldman (1991) rarely found a child developing artistic proficiency until the beginning of intensive training, usually occurring in the late teens. An explanation he gives for this difference is to be found in the physical demands of painting and drawing with respect to fine motor development, which could prevent children from performing well at an early stage.

Feldman (1991) explained that prodigies are likely to appear in the knowledge base of a domain if it is highly organised formally and highly concentrated symbolically. The symbols for music for example come from a stable set of symbols which possess a clear relationship one to each other. How the music symbols are arranged provides the challenge. The Visual Arts have no formal structure and no one set of symbols. It would appear that the more restricted the symbols, the more likely the domain will be accessible for individuals to flourish at an early age.

2.3 IDENTIFICATION

To recognise the behaviours and characteristics of gifted and talented children in the Visual Arts an examination of the principles, methods and practices of identification is necessary. The nomination processes and measuring devices investigated will select children who reveal gifted and talented behaviours and characteristics in the Visual Arts. An important aspect to be aware of when investigating and establishing nomination processes is to take into account "special" populations of children who may otherwise remain unknown.

The Principles of Identification

Richert (1997) draws attention to distortions, which occur about the principles of identification that are directly related to the needs and values of those involved in the process. There are educators who want the identification criteria to affirm conformity of high grades and teacher recommendations (Davis & Rimm, 1994) and parents who want to confirm their esteem of their children's artistic abilities. Richert (1997) states that the identification process should be a *needs assessment* with the purpose of placing children into educational programmes designed specifically for *developing their latent potential* (p. 77).

Richert (1997) provides three precautionary measures before administering an identification tool:

1. The process must be appropriate for the ability being identified.
2. The tool being administered should be appropriate to the stage of development for identification to occur.
3. The tool must be appropriate for children who may be discriminated against especially in *measures of academic achievement* (p. 80).

These children who may be discriminated against may be from cultural groupings including those who have minimal proficiency in the English language as well as creative children who may be underachieving, physically disabled or special needs children.

The following six principles Richert (1997) argues need to be applied in order to ensure excellence and equity in identification practices:

1. *Defensibility:* The development of identification processes must be based on the recommendations of quality research.
2. *Advocacy:* Administrators of identification tools must ensure the effects of identification are in no way detrimental to children who are participating.
3. *Equity:* All groupings of children must be included.
4. *Pluralism:* The definition of gifted and talented in the Visual Arts must be broad and flexible.
5. *Comprehensive:* Children who have potential in the Visual Arts and are gifted and talented need to be identified for appropriate programmes.

6. *Pragmatism:* Procedures should be cost effective and available personnel and tools should be used.

Methods and Practices

The principles of identification provide the justification for methods and practices of nomination processes. Clark and Zimmerman (1984) categorised the methods of identification into three groups; these were *standardised tests, informal instruments and non-test methods* (p.63). Of the three methods of identification, the non-testing category outweighs the use of informal instruments or standardised testing. Self-nomination and review by portfolio presentation with work samples are the most common processes used for identifying gifted and talented children in the Visual Arts (Clark & Zimmerman, 1984).

Standardised tests have a fixed system so that exactly the same test is given at different times and places when required. A standardised test measures against norms and not criteria. Gallagher and Gallagher (1994) noted that the traditional standardised testing system did not measure a number of intellectual capacities including divergent and evaluative thinking. Eisner (1972) and Clark and Zimmerman (1984; 1992) argue the limitations of standardised testing in the Visual Arts. Inconsistency of scoring, lack of measures of Visual Art abilities, inadequate samples, outdated modes of testing and weak validities are reasons given. No guidelines were found or consensus reached on identification for the gifted and talented child in the Visual Arts through standardised testing systems. Standardised testing, distinguishing qualitative levels of performance, exists in some curriculum areas but not in the Visual Arts (Clark & Zimmerman, 1984).

Saunders (1982) however did explain two types of tests related to the Visual Arts. The first type measures an aspect of *artistic talent or taste or aesthetic judgment* and the second type requires the applicant to make a drawing but does not test for *intelligence or psychological states* (p. 8).

Saunders (1982) noted that the Torrance Test for Creative Thinking did not test for artistic ability. Torrance (1988) noted that creative testing predicted achievements in writing, science, medicine and leadership more so than creative achievements in the Visual Arts. This testing system measures "creativity" as the demonstration of fluency,

flexibility, originality and elaboration. The students who scored highly in the Torrance test were identified as creative, but the system lacked direct relevance to artistic creativity (Clark & Zimmerman, 1984).

Informal instruments do not control the procedures and apparatus or the scoring systems in the same way standardised tests do, so results may vary. This process is usually developed to suit a specific programme whereby an instrument or checklist is developed. Saunders (1982) noted that a number of instruments tailored to the objectives and purposes of specific programmes were largely idiosyncratic. Non-test methods call upon self-nomination, interest or rely on past information as a means of identifying students for Visual Art programmes.

Structured nominations like standardised testing are a controlled situation but have different aspects that can be used in connection with open-ended responses. Respondents are not only asked the same set of questions but are able to be compared with their peers. A structure for the formation of a nomination form is provided by the purposes and goals of Visual Art programmes. A nomination form must be clear, efficient and effective in identifying children for Visual Art programmes (Clark & Zimmerman, 1984; 1992). Checklists identifying lists of behaviours could be considered an informal instrument and still be included as a structured nomination system. These are used to check or rate observations of behaviours found in children. This type of rating is used to determine the presence as well as the strength and frequency of the behaviour (Renzulli & Hartman, 1972; McAlpine & Reid, 1996). To improve usage of structured nomination processes it is necessary to develop behavioural checklists. Thorough usage of these types of nomination processes will improve the understanding of definitions found within the Visual Arts. To understand the purpose, usage and terminology of checklists it is necessary to provide professional development to teachers and others in the community (Clark & Zimmerman, 1992).

Peer and self-nomination is valuable as students are usually aware of their own artistic traits and the artistic abilities of their peers (Clark & Zimmerman, 1984; 1992). Students who are gifted and talented in the Visual Arts are usually self critical and discerning in the evaluating of their desires, interests, goals, expectations, skills, concepts and abilities. Although this is a successful process, there can be a disadvantage for students

with high potential but who are low in self-esteem. These children may be reticent about putting themselves forward for nomination. Students need to express their level of interest in particular Visual Arts programmes rather than to identify themselves as gifted and talented (Richert, 1997).

Clark and Zimmerman (1992) recommend that children be asked to provide a dissertation explaining their reasons for wanting to attend a specific programme. This process not only has the potential to provide information on past successful experiences in the Visual Arts but also on what they consider are their talents, problem solving abilities and motivation. This information collected from a diversity of backgrounds, learning styles, and ethnicity gives valuable insights into their abilities and interests and collates data for future referral processes or programmes. Getzels and Csikszentmihalyi's (1976) study concluded that children's methods of investigation into specific questions were more revealing of their exceptional abilities than their solutions. McCaughey (1997) believes a domain specific activity requires a question, which is answered through the creation of a Visual Art product.

Asking peers to nominate individuals for specific tasks or asking them to rate frequency of their Visual Art related behaviours could reveal to teachers specific characteristics not known to them (Clark & Zimmerman, 1992). Children who may conceal their artistic abilities from teachers and adults are usually well known to their peers. Peer associations and relationships extend beyond the classroom to more conducive sharing of abilities and skills although bias can occur between friends. On the other hand, this approach can be effective in identifying children from underrepresented groups (McAlpine, 1996).

Self-nomination forms can be self-interest inventories, which reveal lists of student beliefs, goals, values and interests related to artistic pursuits (Wilson & Wilson, 1982; Tuttle, Becker & Sousa, 1988). Self-motivation can also be reported on through children's drawings and artworks that are spontaneous and exploratory. These gems of creativity done on scraps of paper are often ignored and thrown away (Wilson & Wilson, 1982).

Clark and Zimmerman (1992) explain that exceptional ability in the Visual Arts can be located through letters, poems, essays, sketches, artworks in progress, completed artworks, journal entries and other forms of reflection from teacher, student and peer commentaries. These could be accommodated in a portfolio which is a procedure for observing the demonstration of exceptional ability in the Visual Arts (Saunders, 1982).

Forms in which parents rate the frequency of Visual Art behaviour and describe the interests, activities and abilities of their children are useful for providing information contributing to identification (Clark & Zimmerman, 1992). Parents have insightful knowledge of their children and can usually provide samples of artwork. Associations with their children are outside the school environment therefore they are knowledgeable about interests, attitudes, values, special abilities, skills and motivation. However, caution should be taken because, although their knowledge is helpful they may not have the skills or experience and can overestimate or underestimate the abilities of their children (Ministry of Education, 2000).

The work sample process has evolved from the desire to conduct structured investigations into children's artwork (Clark & Zimmerman, 1983). Work samples of children's drawings and artwork are often contained within a portfolio. Clark and Zimmerman (1983) recommend that a panel of experts who are able to identify gifted and talented students in the Visual Arts evaluate the contents of the portfolio of work samples. They also noted by using the work sample process as a means of identification, differences in characteristics similar to those reported on from the Cleveland studies by Lark-Horovitz and Norton (1959). The work sample process involves a common assignment or group of assignments given to applicants with evaluation criteria to establish the results. This enables comparisons between results of applicants. This process is used in Clarks Drawing Abilities Test (1989) which has been used in many and varied populations in the United States of America.

Not all work sample processes establish criteria to compare results for applicants. For example, children who are asked to submit slides and photographic evidence of work samples as a means to identify their ability to enter a specialised programme of study in the Visual Arts can be disadvantaged. These children can enter any artwork they may have produced as a work sample which has no specific requirement or criteria relating

to the specialised programme. This type of identification is biased as it fails to give qualitative evidence and is built on subjective judgments and opinions that may not be able to be justified or defended.

As well as investigating the work sample of a child there are distinct advantages in viewing work in progress. It gives valuable insightful knowledge into the abilities, skills and interests of a child as well as demonstrating the expressive use of media and concepts and revealing the intensity of the child's achievements (Clark, 1989; Clark & Zimmerman, 1984; 1992). Attention is placed on the potential of the child as work is in progress along with evaluating the final product (Clark & Zimmerman, 1992).

Consideration of Special Populations in the Identification Process

A range of identification procedures should be included that support the desirable characteristics, which come from the diversity of children found within our classrooms. These children represent a multiplicity of cultures and socio-economic backgrounds, which present learning differences and sometimes difficulties or disabilities.

Observation, work samples and contact with whanau members are worthwhile methods for consideration when identifying Maori students who are gifted and talented (Bevan-Brown, 1996). Observation of progress over time, along with achievement in traditional and contemporary art forms can be viewed, produced and performed in the context of the marae or a specialised place. It is important to understand the wairua, listen to the stories and acknowledge the Maori and Pacific environment in which kaumatua and whanau members can motivate people and nominate the exceptional abilities found within their Iwi or Hapu (Hendry, 1996).

It is not uncommon for children with learning difficulties to go undetected as gifted and talented children, especially in the Visual Arts. Observation in primary schools shows varied approaches and attitudes to the Visual Art curriculum. Some of the factors reflected in this variety are an over crowded curriculum, lack of teacher expertise and experience in the Visual Arts, lack of political emphasis and limited resourcing. The traditional methods of identification do not detect gifted children with learning difficulties (Ministry of Education, 2000). Sometimes examination of informal instruments or non-testing procedures can highlight a particular interest, ability or skill,

especially in the Visual Arts. It is important to identify these children as the researcher has observed that a learning difficulty in one area of the curriculum may not mean there are automatically learning difficulties in others. A learning difficulty in drawing for example may not be apparent in painting. Poor comprehension of mathematical problems may contrast with exemplary practice in music and creative thinking.

Children who are seen to have physical or sensory disabilities may have special abilities (Ministry of Education, 2000). These can be masked by their disability. Experience by the researcher when working with deaf children has shown that they have the facility to draw and paint as well as the child who does not share the disability. Children with disabilities have the potential to be identified as gifted and talented in the Visual Arts through parent, teacher, self and peer nominations.

Considerable experience in the classroom has found that children who are underachieving are very difficult to identify as gifted and talented. Positive reinforcement in a safe and constant learning environment will assist in developing patterns of behaviour and Visual Art abilities. Moltzen (1996) suggests children who are rewarded for their efforts and achievements without *humiliation* will assist in the identification process along with checklists and teacher observation scales in the monitoring of affective responses. However it is important to use a multiplicity of processes involving parent, community, peer and self-nomination devices.

The researcher's experience indicates that students from lower socio-economic groups are at risk of being non-achievers even when they have demonstrated potential which is often in the artistic areas of the curriculum. Poor attendance and lack of motivation contributes to a decline in ability and performance the longer they stay at school. Their creativity plateaus or withers away as they get further behind in their achievements. There is an urgent need to identify these children in their early years and in the junior primary school before their patterns of behaviour become too 'set'. These children often lack parental support to foster and nurture their abilities. Peer and teacher nomination through observation methods can sometimes intervene and inspire the child who is in this situation (Davis & Rimm, 1994).

Clark and Zimmerman (1999) draw attention to the special needs of children who are in rural communities. Factors present in these areas can result in failure to provide the opportunities that are available to their peers in urban and suburban schools. These children require cultural interactions, stimulating resources from galleries and museums and associations with children who are gifted and talented in the Visual Arts.

Clark and Zimmerman (1984; 1992) suggest combinations of nomination processes be involved in the identification of the gifted and talented in the Visual Arts. The types of identification vary from standardised testing, structured nominations, informal instruments, student interest, creativity and drawing test scores, peer and self-nomination, parent nomination and portfolios of work samples. Most programmes reviewed show a combination of practices with many programmes using two or more of these procedures. Structured and informal processes along with work samples yields different kinds of information and creates a realistic profile with which to identify information on children's abilities in the Visual Arts. Work samples of artworks on their own may not yield the kind of information required. The nomination processes must be sensitive to the behaviours and characteristics of the special populations, and provide sound principles of identification.

2.4 ATTITUDES INFLUENCING THE EDUCATION OF THE GIFTED AND TALENTED IN THE VISUAL ARTS

Impacting on the ways in which teachers perceive characteristics or definitions and abilities of gifted and talented children in the Visual Arts are a number of misconceptions, which may lead to attitudes or practices that impede children's growth and development. Three major misconceptions are identified in the literature. These are the assumptions that:

1. Exceptional artistic ability is revealed in their Visual Art work at school;
2. High artistic performance does not require high intelligence; and
3. Gifted and talented students do not need instruction in the Visual Arts (Clark & Zimmerman, 1984).

The first misconception is that children who are gifted and talented are easily recognisable by their artwork (Clark & Zimmerman, 1984). Children do not always reveal their artistic abilities in their artwork in the classroom. It is common for teachers

to be unaware of the rich visual creations that children produce outside the school environment. Children hide their abilities if they are perceived as strange or different or if they are misunderstood by their teachers or peers (Wilson & Wilson, 1976).

Children who perform to the expectations of their teacher are often identified as artistic. It is common for the non-conforming child to be seen as lacking in artistic skill (Clark & Zimmerman, 1984; Gallagher & Gallagher, 1994). To use this as a criterion to identify artistic ability is inappropriate. A considerable number of children remain unrecognised if their performance is not consistent with teacher expectations. Many children seek reward and satisfaction in responsive surroundings, which is less threatening and away from the school environment (Ministry of Education, 2000).

A second misconception of artistic performance is that it does not require high intelligence. Some researchers have supported this misconception (Dehaan & Havighurst, 1961; Lowenfeld & Brittain, 1964). Lowenfeld and Brittain (1964) in their observations of children concluded that intelligence tests do not give an indication of being artistic in the Visual Arts. Dehaan and Havighurst (1961) viewed children who achieve to a high level in artistic or musical ability as being average or below average in intelligence. A consequence of this argument occurs when children with low intellectual abilities are placed in Visual Art classes with the belief that they will succeed in the Visual Arts and not in other academic subjects. The reverse of this is even more disheartening when students with high intellectual ability are advised not to take the Visual Arts. The reason often given is that the Visual Arts have no bearing on growth and development (Clark & Zimmerman, 1984).

Arnhem (1969) questioned and challenged the discretionary separation of intelligence from artistic performance. Gaitskell and Hurwitz (1975) along with Clark and Zimmerman (1984) noted that a relationship definitely exists between intelligence and artistic performance. High intelligence and exceptional Visual Art abilities are interdependent although not all children with high intelligence have been shown to have artistic skills. Children with exceptional artistic ability have been shown to possess a higher than average intelligence (Luca & Allen, 1974). High intelligence has been described as a necessary condition for acquiring advancement in skills and techniques to produce exceptional artwork (Clark & Zimmerman, 1984).

Thirdly, attitudes still prevail in primary classrooms that either categorise all children as gifted and talented or that only a few children have ability in the Visual Arts. This perplexing misconception implies that gifted and talented children do not require specialised programmes of instruction. Believing in either of these misconceptions can lead to inappropriate programmes for gifted and talented children. Visual Art educators who believe that all children have high levels of ability can create an unstructured approach to learning based solely on the provision of materials and media for children to work with. Art educators who believe that only a few children exist in the classroom with abilities in the Visual Arts often do not provide special art programmes to cater for only a small selection of children (Clark & Zimmerman, 1984).

Research supports the view that Visual Arts education is necessary for the development and extension for children who are gifted and talented (Clark & Zimmerman, 1984). Children with exceptional qualities in the Visual Arts need differentiated programmes (Clark & Zimmerman, 1984; Eisner, 1972; Luca & Allen, 1974). This was acknowledged in America by the Marland report (1972), which is discussed on page 7 and in New Zealand by the Arts in the New Zealand Curriculum (2000) and in the Ministry of Education handbook (2000).

2.5 THE TEACHER'S ROLE WHEN IDENTIFYING GIFTED AND TALENTED CHILDREN IN THE VISUAL ARTS

The research literature reveals inadequate teacher knowledge in the field of gifted and talented education and the need to rectify this situation. Observation by the researcher in the primary school suggests identification of the gifted and talented child in the Visual Arts is dependent on the knowledge and skills of the classroom teacher. Many of these primary teachers are likely to have limited knowledge regarding the abilities, behaviours, characteristics and skills found in gifted and talented children in the Visual Arts. Teachers who have a positive attitude towards gifted and talented children and have an interest in the Visual Arts appear to be effective in identifying children in their classrooms. However, teachers who have negative attitudes, minimal interest and understandings or are unsympathetic to the Visual Arts can create barriers to identifying children (Clark & Zimmerman, 1984). Bias can occur towards underrepresented groups of children, especially those who underachieve, or who are perfectionists and produce neat and tidy work (Clark & Zimmerman, 1984).

Tuttle, Becker and Sousa (1988), when examining school records for information on gifted and talented children in the Visual Arts, found them to be helpful as well as misleading. They concluded that although high grades can be used as an effective means for identifying these children, teacher opinions often produced unreliable information, could be biased and were not necessarily helpful.

Teacher nomination is the most common method used in schools and relies on the majority of teachers who are middle class, white and limited in knowledge of particular cultural groupings (Ministry of Education, 2000). Teacher nomination also can be culturally unacceptable and problematic in terms of self-concept and self-efficacy within personality types (Rawlinson, 1996).

McAlpine (1996) supports a structured approach to the teacher nomination process. This will guide teachers as to which the abilities, behaviours, characteristics and skills to observe. The frequency, intensity or quality of their occurrence and additional comments can be made on work habits, motivation and Visual Art knowledge (Clark & Zimmerman, 1992).

The findings of the literature on the value of teacher's nomination processes and the effect they have on gifted and talented children in the Visual Arts, provides a strong justification for this research. Therefore, it is important to critically inquire into the unique capabilities and capacities these children possess and the means through which to identify them (Clark & Zimmerman, 1984).

2.6 SUMMARY AND CONCLUSION

The literature has provided the basis on which to develop a Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. Firstly, it was necessary to explore the concepts and definitions to formulate a definition for identifying gifted and talented children in the Visual Arts that will apply to New Zealand primary schools. This provided the basis for the first question for the research. What are the issues and problems in developing a Teacher Observation Profile for Identifying Gifted and Talented Children in the Visual Arts? Secondly, examining children's drawings as work samples provided evidence to observe the behaviours and characteristics that could feature in a profile in collaboration with other identification processes. This provided

the basis for the second question for the research. What are the abilities, skills, behaviours and characteristics that need to be included in a Teacher Observation Profile for Identifying Gifted and Talented Children in the Visual Arts? Thirdly, examining the principles, methods and practices of identification processes and the special populations to be included, revealed appropriate nomination systems and biographical information about these children (Clark & Zimmerman, 1983). The biographical information provided the basis for the third question for the research. What age or stage can gifted and talented children in the Visual Arts be identified? Fourthly, a consequence of this is the attitudes that are often prevalent in the teaching of gifted and talented children in the Visual Arts. Finally, attitudinal problems have influenced teachers' knowledge and have shown in the literature to cause the neglect of such children for nomination. It was important therefore to ensure that a teacher would use a teacher observational profile thus providing the basis for the fourth question for the research. How can a teacher observation profile be practical, effective, efficient and reliable for educators? The researcher was unable to locate an operating example of an approach to the profiling of gifted and talented children in the Visual Arts in New Zealand primary schools. These factors concur and interact with one another and complement one another whereas on their own they only provide single dimensions for identifying these children in the Visual Arts. No single factor has proven to be most effective or efficient nor has their simultaneous use proven to be an exhaustive means of identification. Taking all these factors into consideration gives considerable weight to this research.

CHAPTER THREE

THE RESEARCH PROCESS

In this chapter the research process is described and the way in which the study was conducted is explained. It is a qualitative study which combines empirical and evaluative components within a broad action research design. In the first instance the relationship between the qualitative process and the research design is discussed. Secondly, the philosophical approach to the research design is described along with the observation methods and five phases of development to produce a Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. Thirdly, there is an examination of the data collection methods used in the study along with ethical considerations and limitations of the study.

The first section of this chapter sets out the qualitative process and its influence on the research process. The research process is described in the second section of this chapter, which focuses on action research utilising observational methods with five phases of development. The first phase examined the general learning and the Visual Art learning literature on gifted and talented children. The second phase developed the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts in accordance with the literature and in collaboration with three teachers in a primary school. The third phase involved a professional advisory panel reviewing the Teacher Observation Profile of Gifted and Talented Children in the Visual Arts. The fourth phase was a trial of the Teacher Observation Profile in three primary schools. Finally, in the fifth phase, an analysis of the research findings was carried out along with the writing up of the data and the design of the final version of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts.

3.1 THE QUALITATIVE PROCESS

The design for the research was a qualitative process, which is appropriate for the aim of providing a practical procedure for teachers to use in primary schools. The practical procedure involved the formulation and design of a Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. The instrument provided a profile, with which to report on individual children's abilities, skills, behaviours and characteristics

exhibited in their artwork. To formulate the teacher observation profile it was necessary to have a reflective action research process which could occur throughout the development of the instrument. The reflection process that is central to action research allowed for ongoing modifications to occur as the research proceeded from phase to phase. The communication and interaction between each phase of the study was open-ended so that the research techniques could produce meaningful information on which to base the modifications. At the fifth phase an evaluation of the modifications resulted in the final version of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts for teachers to use in primary schools.

The rationale for the research was developed from the researcher's informal observation and awareness from anecdotal evidence that teachers need to have a process for profiling gifted and talented children in the Visual Arts. This lends credence to the Visual Arts and knowledge of the characteristics, skills and abilities of gifted and talented children. To yield different kinds of information, it was important to use a combination of procedures to reveal students' potential and their processes involved in the production of art, as well as identifying the evidence found within the final product. Such a process provides valuable information, which may not be known to students or teachers in the New Zealand education system. The intention is not for the observational instrument to be used as the sole basis for rejecting or accepting an applicant to a programme for gifted and talented children in the Visual Arts. It is to be used in conjunction with other identification practices as explained in section 2.3.

The goal of the qualitative research was to discover patterns that may emerge after close observation, careful documentation and thoughtful analysis and evaluation of the process. The goal is also central to action research. Merriam (1988) discusses six assumptions upon which qualitative researchers rely. They are:

1. Concern with process as well as the outcomes of products;
2. Interested in meaning, or how to make sense of individual's experiences and the structure of their lives;
3. Reliant on themselves as the primary instrument for the collection and analysis of data;
4. Involved with fieldwork in the natural setting or institution to observe or record behaviours;

5. Concerned with describing the process, meaning and understanding obtained through words or pictures; and
6. Involved with the inductive process building on abstractions, concepts, hypotheses and theories analysed from details.

Application of these assumptions along with the experience of the researcher provided the maximum opportunity to learn about the qualities investigated in the participants and their drawings.

3.2 THE RESEARCH DESIGN

Underpinning the qualitative process were the philosophical assumptions which determined the research design for the study. The main philosophical assumption was an epistemological stance towards multiple sources of knowledge relevant to finding out what the characteristics are for profiling these children. This knowledge was derived from four inter-related sources. The first source involved engagement with the research on gifted and talented children in the Visual Arts, as explained in chapter two and is phase one of the research design. The second source involved the deductive thinking process, which drew upon statements from the literature on gifted and talented children, from the literature on general learning and on Visual Art learning areas. Once the researcher identified the statements, they provided the basis for organising what was already known about the characteristics from the literature search and linked theory and the observation for phase two of the research design. The third source was based on experience. This experience came from the participating educators in schools, the professional advisory panel and the researcher, as explained in phases two, three and four of the research design. The fourth source was imperfect induction, which was the process utilised in order to observe a sample from the participants. This sample was then used to infer the generalised characteristic of the group as described in phase four of the research design. Imperfect induction cannot provide infallible conclusions although it can provide reliable information to make reasonable decisions (Ary, Jacobs & Razavich, 1972). Artworks provide meaningful enquiry into concepts and ideas about a culture or society (Dorn, 1999). The fifth phase of the research design was the drawing together of the data collected from each phase of the research design in the development of the teacher observation profile to the presentation of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts.

The plan of action, which the researcher developed, required the research design to be interactive and collaborative between the researcher and the practitioners (Elliot, 1991). The reflective process utilised throughout the five phases of the study combined with observation methods, entailed a broad approach to action research (Kemmis & McTaggart, 1982). An action research design allowed the research to contribute to educational change by developing an identification system for gifted and talented children in the Visual Arts which has been validated through teachers' practical experience.

The term action research was used by Lewin (1946) to describe the cyclic model of research where those firstly affected have responsibility for deciding future action. There are four fundamental "moments" of the action research cycle:

- to develop a plan of action to improve what is already happening;
- to act to implement the plan;
- to observe the effects of action in the context in which it occurs; and
- to reflect on those effects as a basis for further planning, subsequent action and so on, through a succession of cycles.

(Kemmis & McTaggart, 1982)

Elliot (1991) revises Lewin's model to allow the general idea of the research to shift and to include investigation at the start of each spiral of activities rather than only at the beginning. Elliot also requires action researchers to acknowledge that implementation is not always straight forward and cautions that the research should not proceed to evaluation until the researcher has monitored the extent to which the action has been implemented. In Elliot's view, the fundamental aim of action research is to improve practice rather than to produce knowledge (Elliott, 1991).

The outline of the action research plan is encompassed in each of the five phases of the research process. The following section explains observation methods and the five phases of the action research plan which the researcher developed.

Observation Methods

> It is this system of uniformity between observers, which underlies the systematic observation systems to provide an objective account of the situation they describe (Croll, 1986, p.6).

Observation methods carried out in educational research come under the rubric of field methods. Field methods relate to the authentic setting where the research is conducted as opposed to an artificial setting (Harker, 1998). In this instance the research took place in the authentic setting of four Palmerston North primary schools. One school was involved in the formation of the teacher observation profile and the other three schools in the trialing of the teacher observation profile.

The observational methods used were part of a structured and systematic process. The purpose of structured observation is to decide on a set of appropriate procedures and definitions in order to establish an accurate description of selected features of activities and interactions. Once fulfilled, this purpose assists in removing subjectivity, which occurs when individuals describe events as they occur in the classroom (Croll, 1986).

Croll (1986) outlined four aspects justifying structured and systematic methodology as a qualitative process:

1. For data to be explicit in its purpose and for the purposes to be developed before conducting data collection;
2. To classify data into a set of criteria and a set of categories. Both data and categories are to be explicit and rigorous in their definitions;
3. Data can be summarised in quantitative form and related to other data using statistical techniques; and
4. Once criteria and recording procedures have been established the observer or any future observers can follow the instructions that have been applied.

The observational methods used in collecting the data were not through direct questioning of participants but rather through observing, listening, making notes, and collecting samples of children's artwork. This method yields information that is not apparent from other sources. Observational methods are a means of understanding what is happening when time is spent in the classroom (Bouma, 1996). Information emerged while the researcher observed the methods children used while drawing. Experience has

shown that observational methods can identify the more able students while they are creating and producing artwork.

Rountree and Laing (1996) view participant observation as the opportunity for the researcher to become involved in the lives of the research participants. At the same time it allows the researcher to observe, record and reflect on the experience and abilities of the participants. However, in this instance the researcher was the non-participant observer and not the participant observer (Bouma, 1996). To be the non-participant observer allowed for the collection of accurate information on identifiable characteristics found within the drawing process. Although it is customary for viewers to respond and critique artworks while they are in progress, the researcher was careful to remain apart. The custom for visiting educators, taking an interest in children's achievements and not providing input, sat outside the norm in this project. Most children assumed the researcher was observing the teacher. The researcher taking the role of the non-participant observer and not the participant observer assisted the objectivity of the results.

In conjunction with the observational methods there were five phases set up by the researcher in the design of the research to develop the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. These were:

- Phase one, which examined the general learning and the Visual Art learning literature on gifted and talented children;
- Phase two, which developed the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts in conjunction with the literature and the expertise of three teachers in a primary school;
- Phase three, which involved a professional advisory panel reviewing the Teacher Observation Profile of Gifted and Talented Children in the Visual Arts;
- Phase four, which trialed the Teacher Observation Profile in three primary schools; and
- Phase five, which involved analysis of the research findings and writing up of the data along with the presentation of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts.

Phase One

The main purpose of the first phase was to focus on a literature source from general learning and the Visual Art learning areas related to gifted and talented children. This was to identify the relevant information for the teacher observational profile as well as to explore the four research questions. A focus on points of correlation was made between the following aspects identified from the research.

- Concepts and definitions in which to formulate a suitable definition of gifted and talented children in the Visual Arts for teachers to use in primary schools;
- Behaviours and Characteristics using children's drawings as a means of identifying these and for the identified characteristics to be included in the profile;
- Identification methods and practices in which to determine the development of an effective structured nomination system for teachers to use;
- Attitudes towards Gifted and Talented children in the Visual Arts to identify barriers, which prevent the identification for programmes of learning and the mentoring of these children;
- Teacher knowledge of children who are gifted and talented in the Visual Arts to determine the ability of teachers to use a structured nomination system.

These categories of broad descriptors identified from the literature provided information on gifted and talented children in the Visual Arts.

Phase Two

The second phase was the developmental phase in which collaboration occurred with the three teachers in a local primary school and the literature reviewed in phase one to develop the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. Before a school was selected for developing the teacher observation profile it was necessary to consider how schools could be identified for the study.

When setting up the study it was important to identify and select schools in an appropriate context. These schools needed to have knowledge and expertise with gifted and talented children in the Visual Arts. Therefore, purposive sampling was used whereby the researcher used judgment to select the sample (Bouma, 1996). The reasons the four primary schools were selected for the pilot and sample schools were based on

the research criteria itemised below. The criteria used to select the four primary schools were:

- Co-educational from year 1 – 8;
- A range of socio-economic groupings;
- A positive attitude towards children with special abilities;
- Some knowledge in teaching the Visual Arts curriculum; and
- Supportive to the research project.

Once a decision was made as to the appropriateness of the schools the researcher sought consent from the schools to be involved in the study.
This involved:

- An interview with the principal and the key teachers of the primary school to establish the project as shown in appendix A. and B;
- A focused interview with the relevant teachers to discuss characteristics located in the research literature;
- A visit to the school by the researcher to observe a drawing lesson in each class participating in the research;
- The formation and application of the descriptors to the outcomes of the drawing lesson; and
- An interview and questionnaire for teachers to evaluate their findings as shown in appendix C.

School A was the pilot school and is a small decile five city integrated Catholic school with children from low to middle socio-economic groups. Children come from families with some professional and self-employed parents. Parents are very supportive financially and are active in assisting with school activities. The school roll had one hundred and eighty six children with ten children coming from cultural backgrounds other than Pakeha at the time of the pilot study.

There was no difficulty in identifying the pilot school as it possessed the criteria and the researcher had prior associations with the school. School A had already developed procedures for identifying special abilities in children, with particular strengths in delivering the Visual Arts curriculum. The culture of this school focused on developing individual strengths in children and did not view special abilities as being extra, or elite

(McAlpine, 1996). School A had a policy to keep a register on children with special abilities. These aspects provided the necessary foundation and depth of investigation to provide the framework needed to develop the teacher observational instrument (Riley, 1996; 1997).

The Principles of Identification within the Pilot School

Prior to this research the school developed insightful information about children who were gifted and talented. Earlier in the year the teachers had formulated a teachers' nomination instrument for identifying gifted and talented children in their school covering a range of curriculum areas. The staff decided to keep the findings of the identification instrument in a school register. The school register was seen as an important document for recording, retaining and providing information to teachers. Having a school register for recording data was seen as an important device which could be accessible to staff and could be referred to when required. This enabled teachers to look for children who could be selected for particular enrichment activities such as Mathematics, Oral Language, Reading, Visual Art or other curriculum areas. As teachers came to know their children they could recommend children to be included. Once children were selected for a programme, parents were informed. This ensured open communication between parents, caregivers, children, teachers, the Principal and the Board of Trustees as well as community providers involved (McAlpine, 1996).

The register provided a record of data for the following reasons:

1. As a child moved from one class to another the data could be available for the teacher who had not previously taught the child;
2. Changes could be recorded when required or as the child became older;
3. As different experiences, opportunities, growth or development arose a child could be channeled into different categories of characteristics;
4. Children that were thought to be gifted and talented and had not any identification procedure to verify this may not be;
5. Children who had been considered underachievers may register on the identification process as not being underachievers; and
6. Characteristics and behaviours could be modified as the nomination process was checked and tested from time to time. This constant evaluation would be an

increase in the effectiveness of the instrument (McAlpine, 1996). Over time this would test the reliability of the nomination process (Bouma, 1996).

Having a school register to monitor and record the children involved in the identification process agrees with Fatouros' (1986) views on the basic principles of identification. She argues for identification to be ongoing and continuous and to not occur only once in a child's life. McAlpine (1996, p.67) makes the point that "once gifted always gifted" is a debatable statement. Personalities and abilities change. Therefore, one must be alert for the emergence of any special abilities regardless of when it happens. As teacher C pointed out, because children often have a learning *leap* at various stages and then they plateau, ongoing monitoring is paramount. The register should be seen as a means to an end and not as an end in itself (McAlpine, 1996). If the child has a learning environment which is responsive to their needs then this will challenge the learning and teaching experiences of the child and may foster unrealised traits. To identify a child as gifted and talented is making a prediction about the future behaviour and achievement of the child (Fatouros, 1986). Retaining and monitoring the data of the gifted and talented child would not only provide longitudinal information but also plot the child's educational strengths. As the child changes, this will influence the design of programmes so that they best suit the child as it progresses through the school. The pilot school holds the view that children can be gifted and talented in a number of areas and includes the Visual Arts in their gifted and talented programmes.

As a Teacher Observation Profile for Gifted and Talented Children in the Visual Arts is trialed over time the opportunity will be given for procedures to be adapted and modified and to include characteristics not previously thought evident. The profile should be flexible enough to include characteristics and behaviours that would be viable for a range of ages and ability groupings whether new entrants, in the middle school or among older children. More importantly, through the process of ongoing identification, a school can consider children who may have been overlooked. Children who come from other schools, children with special needs or disabilities, migrant children or children from backgrounds that have not provided experience in a particular curriculum area have the opportunity to be revisited during their school life (Feldman, 1991). This would enable previous groups of children who may have been under-represented to be included (McAlpine, 1996).

The three teachers from the pilot school and the researcher adopted a team approach. The team evolved from discussion with the Principal and the Assistant Principal, who was an experienced teacher in the Visual Arts and in charge of the Visual Arts programme. The team consisted of: teacher A; the Assistant Principal who was the new entrant teacher; Teacher B, who was an experienced Visual Art teacher who taught years three and four; and teacher C, who taught years five and six. Teacher C had an interest in the Visual Arts but was not experienced in teaching in this area. The three teachers and the researcher worked with sixty four children aged five to eleven years to initiate the process of developing the teacher observational profile. This was consistent with the broad action research approach that was being followed.

The three classes provided the opportunity to explore the research objective of formulating and designing a teachers' observational profile for use in the primary school for identifying gifted and talented children in the Visual Arts. This provided observational opportunities to identify characteristics that were indicated in the literature review. Observational methods gave insight into the research questions outlined in the research design of this chapter.

Teacher A was a trained certificated primary teacher with a qualification in reading recovery who has been teaching for twenty years. Although teacher A has no Visual Art qualifications, her teaching experience in the primary school along with the development of her personal art skills contributes to her knowledge and teaching of the Visual Arts. Her interests and experiences in the Visual Arts were drawn from participation in embroidery, calligraphy, cake decorating and marbling, as well as making frequent visits to art galleries to view exhibitions. These visits to art galleries enabled her to make links to the school's programmes, especially in the Visual Arts. Apart from her own resourcefulness through visiting exhibitions she took her class on visits to the art gallery when exhibitions coincided with topics being taught.

The new entrant class had eight five year old children. Three of the children came from a pre-school where no time constraints are imposed on the children to finish work. Another two of the girls spent considerable time drawing and making things. The teacher observed that of the two girls one was skilled at colouring pictures and the other was able to cut well. This class had one and half-hours of Visual Art teaching a week.

Teacher B was a trained, certificated primary teacher with a Diploma in Teaching with some additional papers and had been teaching for sixteen years. Like teacher A she participated in various artistic pursuits like sewing, embroidery, stitchery, smocking, flower arrangement and cake decoration. These abilities and display skills enriched her environment and contributed to her lifestyle both personally and professionally.

Coordination of the Visual Arts in the school was teacher B's responsibility. During this time she had coordinated an accelerated programme in the Visual Arts for three years with the College of Education and organised posters and banners for the school and the church. Although she had no qualifications in the Visual Arts she felt confident to teach in this curriculum area. Her teaching experience in the Visual Arts was based on a strong belief that children gain success by having a personal interest in the Visual Arts. Central to their personal interest is creativity, which teacher B believed could be taught as well as developed in children.

Teacher B taught year three and four children made up of twenty girls and seven boys aged seven to nine years. One child was profoundly deaf and two children were diagnosed as having attention deficit disorder and required medication. Seven children were new to the school and therefore, had not been exposed to the Visual Arts programme that operated in the school. It was possible that the background of these children was of lesser substance in this curriculum area than their peers.

Ten children came from cultural backgrounds other than Pakeha. There were eight Maori, one Philippine and one American. Although these children had been born in New Zealand, varying degrees of cultural influences have impacted on them from their family life.

This class had one and half hours of Visual Art teaching per week with additional art skills integrated into all areas of the curriculum where appropriate.

The researcher viewed this teacher's depth of Visual Art knowledge as being substantial, although the teacher did not view herself this way. This teacher had some experience in recommending gifted and talented children for specialist programmes

both in Visual Art and other curriculum areas. She had used a number of nomination processes and brought this experience to the study.

Teacher C was a trained certificated primary teacher who had been teaching for twenty years and had been teaching in the pilot school for two years. Previously she taught at an intermediate school where there was an art specialist who taught the children in this curriculum area. While she was teaching at the intermediate school the Visual Art in her programme consisted of making mathematics shapes for geometry and making posters for reading. In the pilot school she spent one and a half hours each week teaching Visual Art as well as integrating Visual Art skills across the curriculum. In terms of teaching the Visual Art curriculum she rated herself in the average category. She tried out Visual Art activities at home first to make sure her ideas were going to work. If the Visual Art lesson was not successful she always went back and tried again until she was satisfied with the learning outcomes.

Teacher C's class was made up of year five and six children ranging in age from nine to eleven years. There were twenty-nine children in the class of whom ten were boys. The children were predominantly New Zealand Pakeha combined with one Chinese, one Maori and one Tokolau Island child. Three children had been diagnosed as having attention deficit disorder and were on medication. Many of the children had already been exposed to the special abilities programmes provided by the researcher for the last two years. Some of these children had attended the programme for two consecutive years. These children had experienced quality Visual Art programmes throughout their schooling. They took pride in all areas of their schoolwork and enjoyed working with quality art media provided by the school.

The professional development of teachers A, B and C had primarily been their contact with an art adviser. This occurred in two ways. Firstly, the art adviser was available to visit the school and had assisted in upskilling these teachers in the teaching of clay, painting and embroidery. Secondly, these teachers were members of the art advisers' art educational network, which met once a term. This art network was for primary and intermediate teachers in the Palmerston North region. At these art network meetings teachers gained theory, knowledge, skills and practical experience in printmaking,

drawing, painting and sculpture. Through these experiences these teachers had gained confidence, techniques and skills to teach Visual Art activities.

Identifiable Problems in the Pilot School

Because the school had recognised the need to focus on gifted and talented children and participated in an identification process, one of the difficulties they had experienced with their observational identification instrument was fitting children into the criteria they had identified. Teacher B felt that it would be preferable to develop an identification instrument that was especially tailored to a specific programme of study. The teachers had identified children who had particular cognitive and affective characteristics as measured by their general identification instrument, but they had not received sufficient information regarding their abilities in specific curriculum learning areas. The three teachers were looking for general characteristics as well as individual characteristics, which may be evident in specific curriculum areas. The example given was related to mathematics. The teachers felt that the characteristics, abilities and skills identified in mathematics were unclear in the identification instrument they used and they were equally aware that the characteristics would be quite different again for the Visual Arts. Although the teachers did have some evidence through the instrument they had developed, that a child who was identified as gifted and talented could be gifted in a number of curriculum areas, they were not necessarily gifted and talented to the same level in all curriculum areas.

The teachers' previous difficulty of fitting children into the set criteria of their general observational identification instrument provided useful information when developing the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. To be objective, it was important not to prejudge any of the children's artistic abilities before they participated in the study. This would test whether children who previously had been considered artistic possessed the appropriate characteristics or not. Although the teachers had been working with their own classes for half a year they had not been actively looking for gifted and talented children in the Visual Arts.

The Timing of Identification in the Pilot School

In setting up the development of the teacher observational instrument one of the factors affecting the attitude of the teachers in the pilot school was the timing of the

identification process within the school year. It was considered that setting up an identification process should not occur too early in the year. The attitude taken was that teachers did not get to know their children well until at least half way through the year. At the beginning of the year teachers were focused on teaching skills and techniques which were significant to learning within the curriculum areas of the New Zealand Curriculum Framework (Ministry of Education, 1993). The essential learning areas of the curriculum (Ministry of Education, 1993) did not necessarily focus on the individuality of the child, an attribute that is necessary for the identification of the gifted and talented child. It is not until teachers become familiar with individual learning styles of their children and the knowledge and understanding they exhibit in curriculum areas that they will become conversant with their strengths and shortcomings. This knowledge accumulates over a period of time through teachers observing, evaluating and assessing the progress made by the class. All three teachers placed an emphasis on the importance of knowing children well so that perceptive and informed judgments were made when identifying children for gifted and talented programmes. The implication was that this would be difficult if children were not well known by the teacher. Teachers need to see children's work across a variety of areas. It is only then that they can be informed of the abilities, skills and characteristics that children possess.

The Drawing Task in the Pilot School

Comparability was an important factor in selecting a drawing task for the formation of the teacher observational profile. The three teachers in the pilot school decided to select the same subject for all classes based on a topic which would have appeal and interest for children between the ages of five and thirteen years. The starting point began with the subject of the family pet. The teaching of this subject was considered too broad and complex for this study and so the decision was made to narrow the option to *draw a cat*. This task was administered according to:

- Each teacher's delivery style;
- Using a B pencil on A4 paper; and
- At least one hour to produce a quality drawing.

This task was considered sufficient to collect salient evidence of drawing ability to measure the degrees of difference between children. The researcher noted in the literature search that drawing tasks varied considerably in number, subject, media and

concept (Clark, 1989; Munro, Lark-Horovitz & Barnhardt, 1942; Getzels & Csikszentmihalyi, 1976; Goodnow, 1977; Stalker, 1981; Wilson & Wilson, 1982). The decision of the subject came from the researcher's knowledge of teaching New Zealand children.

Observation of the drawing task used a systematic method (Harker, 1998). This involved observation of a particular incident at a particular time and place. For example, when observing child 1. on Monday morning at 9 o'clock on the 16 of August 1999, while she was drawing a cat on A4 paper with a 2B pencil at school A, gave a statement of the task that this child was involved in at that particular time and place.

The Teacher Observational Profile for Gifted and Talented Children in the Visual Arts

The teacher observational profile was administered to the participating classes from the pilot and sample schools. This evaluation process involved a consensus model of assessment used when rating children's drawing samples (Department of Education, 1975). The researcher, being an experienced national assessor in Visual Art education, adapted the model to suit the evaluation process. The evaluation process effectively became the identifying method for gifted and talented children involved in the drawing activity. The following four steps were adopted:

1. All students' drawings were rated into four broad categories - below average, average, above average and exceptional - by the teacher who administered the drawing lesson;
2. The teacher then checked the categories to identify any students that may be on or near the boundaries of the categories. Any drawings that displayed anomalies were identified and discussed with the researcher, but care was taken not to influence the teacher's decision;
3. The researcher checked to see if agreement was reached with the teacher's rating and to identify any students who may be in the underrepresented groupings of non-achieving children; and
4. Students who were in the above average and exceptional categories were rated against the trial teacher observational profile to see if they agreed with any of the characteristics.

Prior to administering the instrument teachers were asked to complete a form rating the children in their class according to their knowledge based on previous art activities and general observations (see appendix D). The research took place during the latter part of the year so the teachers had time to get to know their students. On completion of administering the teacher observational profile, teachers were asked to re-evaluate their ratings based on the children's drawings from the prescribed lesson. This was produced on the same form next to the teacher's prior knowledge ratings so a comparison could be made between ratings.

The Use of Triangulation

> The use of multiple sources to giving a study its robustness is called data triangulation (Rountree & Laing, 1996, p. 106).

"The main analytical tasks were related to establishing patterns or regularities" found within "the data and then cross-checking to make sure the data was reliable and valid" (Delamont, 1992, p. 158). To ensure reliability and validity in qualitative research one of the strategies used is triangulation (Delamont, 1992). The researcher used the method of triangulation (Delamont, 1992) by acquiring systematically several types of data when identifying characteristics of gifted and talented children in the Visual Arts. This use of multiple methods provided the cross-check when studying the problem. The researcher used the following triangulation methods:

1. The teacher's prior knowledge of children's art abilities based on perceptions arising from previous observation and the teaching of artwork;
2. Actual evidence observed in the prescribed drawing lesson by the teacher and observed by the researcher; and
3. The use of the draft observational profile by the teacher on the drawings from the prescribed drawing lesson to determine the presence of the characteristics and the recording of this data.

These multiple methods were checked to see if the characteristics that were formulated from the literature review correlated with the drawings from the children who sampled the instrument in this phase and in phase four.

Phase Three

Phase three was the review phase. The teacher observation instrument was reviewed using a questionnaire method. This was carried out by a professional advisory panel with expertise to provide feedback on the content and format of the data collected

The questionnaire was a means of collecting data to convert into information (Tuckman, 1978). In this instance, the questionnaire was designed to gather knowledge from the respondents in the form of measurable data on the identifying characteristics of gifted and talented children in the Visual Arts. The reporting of information allowed comparison of responses across the categories of respondents. The questionnaire was structured to ensure respondents reported on what they believed and on what they liked (Tuckman, 1978). Methods of direct and indirect questioning were used. Direct questioning was used when a statement required a response whether it was liked or not liked. Indirect questioning was used in collusion with direct questioning to ensure the respondent, if at variance with a direct question, could modify a statement to provide information on what they actually thought (Tuckman, 1978).

It was necessary to encourage respondents to give an accurate account of their perceptions through a combination of questioning techniques. It was not sufficient to gauge whether a respondent merely liked, disliked, agreed or disagreed with a statement but rather to obtain their considered perceptions. Linking specific with nonspecific questioning helps distinguish fact from opinion and provides a means of engendering frank and honest responses. The structured questionnaire provided opportunities for respondents to answer the same questions and gave open-ended responses for the research.

The structured approach to the questionnaire allowed for the eliciting of objective rather than subjective knowledge (Chetelat, 1981; Rutledge, 1987). The judgment and perceptions of the respondents needed to be based on a combination of prior knowledge of children's artistic ability as well as on a profile of the children's drawing samples. Chetelat (1981) and Rutledge (1987) support the researcher's experience that prior knowledge, without visual evidence of a work sample, can be seen merely as supposition and subjective because it is based on a single respondent such as the child's teacher. Experience has shown that it is unusual for a primary teacher to have expertise

in the Visual Arts. The knowledge base of the primary teacher is usually of a generalist nature and not subject specific. Therefore, profiles of children's artwork must be emphasised to minimise bias or distortion as well as to provide a more objective and impartial view.

The descriptors were prepared from the literature search and the evidence found in the children's drawings of cats in the pilot school. The seeking of information from respondents allowed for the clarification and justification of issues. This provided further support for the characteristics found within the drawing samples by the teachers and the researcher in the pilot school.

The questionnaire on the teacher observational profile was studied and critiqued by the panel in relation to the following criteria:

- Relevance to the behaviours, characteristics, skills and abilities to the identification of gifted and talented children in the visual arts;
- Succinctness and precision of statement descriptors and statements;
- Specificity and clarity;
- Non-duplication of another statement in the same descriptor or statement; and
- Correct assignment to the decided ratings and qualities.

The questioning technique needed to be appropriate to the areas respondents were invited to acknowledge in the questionnaire. These were:

- The category of the participant – that is whether the respondent was an academic, primary, secondary or tertiary teacher, parent or other;
- The naming and formatting of the instrument;
- The wording and number of criteria;
- The sequence, key wording and statement describing each characteristic; and
- The effectiveness of the instrument and any other relevant information.

The researcher investigated any characteristic not included and considered by the panel as missing. The descriptors, statements and rating system were modified to accommodate the findings of the panel (McAlpine & Reid, 1996).

Although the questionnaire was primarily developed for the third phase of the research design it was circulated to three groups of respondents. They were:

1. The professional advisory panel;
2. The teachers who carried out the drawing activity in the pilot school; and
3. The teachers who carried out the drawing activity in the sample schools.

The professional advisory panel was made up of fifty-eight personnel with expertise in general, gifted and talented, Visual Art and cultural areas of education. It consisted of:

- Academic personnel in education;
- Educationalists in the area of gifted and talented;
- Experts in research and teaching of Visual Arts;
- Beginning and primary school teachers;
- Members of boards of trustees; and
- Parents.

The expertise within the professional advisory panel consisted of three broad groups of educationalists. The first group was formed around educationalists in the field of gifted and talented education, with some of these educationalists having expertise in Visual Art education. The second group was formed from primary and secondary teachers who teach the Visual Arts. The third group were trainee teachers who have Visual Arts and gifted and talented education, as a focus in their degrees.

The package that was sent to the professional advisory panel, consisted of the following items:

1. A letter to gain the respondent's cooperation (Sax, 1979) see appendix E;
2. The formal acknowledgement of the University as the sponsoring agent to lend academic authority to the questionnaire. This explained the purpose of the study, the importance of the questionnaire, and the relevance to the arts draft curriculum (Ministry of Education, 1999). Attention was emphasised on formal identification of gifted and talented children in the Visual Arts along with the significance of early identification so enriching and challenging experiences can be provided for by schools;
3. A prepaid return envelope was provided to all respondents;

4. A copy of the draft Teacher Observation Profile for Identifying Gifted and Talented Children in the Visual Arts; and
5. A copy of the questionnaire entitled Teacher Observation Profile for Identifying Gifted and Talented Children in the Visual Arts as outlined in phase three of the research design. This gave clear directions for responding to the questionnaire and explained how the questions were to be answered, setting a two-week deadline.

Items 1,2 and 3 were explained to the teachers in the pilot and sample schools by the researcher. Items 4 and 5 were given to both the pilot and sample schools by the researcher as explained in the package sent to the professional advisory panel.

Phase Four

Phase four was the trialing phase. To trial the teacher observation instrument for gifted and talented children in the Visual Arts, a purposive sample was selected from state co-educational primary schools. The sample surveyed three schools:

1. School B - a small rural setting;
2. School C - a large city setting; and
3. School D - a rural and urban setting.

School B was a decile one, small rural school of 260 children situated several kilometres from the city. A small number of the children came from farming families and the rest came from families on benefits. Sixty percent of the school roll was made up of Maori children and forty percent of Pakeha. No other ethnic groups were represented. This school had a teacher in charge of the Visual Art programme and there were many displays of Visual Art work adorning the walls. There was no mention of children who were gifted and talented or had special abilities. Eight classes participated in the sampling process with a total of one hundred and sixty children.

School C was a decile three school of four hundred and sixty five children and was a large city school with a large number of children from low-income families. The school roll consisted of sixty five percent Pakeha children, twenty five percent Maori, seven percent Pacific Island and three percent from other ethnic groups. The Principal of this school determined the syndicate that provided the sample based on his perception of the

quality of the Visual Art programmes produced in the school. Five classes participated in the sampling process with a total of one hundred and twenty seven children.

School D was a decile eight school of three hundred and sixty children and was a village community a few kilometres from the city. Children came from urban and rural backgrounds from a wide range of socio-economic groupings with some cultural diversity. Sixteen percent were from Maori and other ethnic groups. The school identified sporting and cultural features as special sections of its programmes. The Deputy Principal, an experienced primary teacher in the Visual Arts, selected the participating syndicate. Four classes participated in the sampling process with a total of ninety-seven children.

A total of seventeen primary teachers and three hundred and eighty four children participated in the trialing phase in the three sample schools.

The teachers in the sample schools were instructed on how to operate the process involved in administering the teacher observational profile. It was necessary for the teachers to understand and interpret definitions of identification related to gifted and talented children and to be knowledgeable about the aims of the research. On completion of the process, teachers participated in focus group discussions with the researcher. All teachers were given a copy of the questionnaire given to the professional advisory panel in which to survey and evaluate the findings.

This phase involved a structure similar to phase two:

- An interview with the Principal and key teachers of the schools to establish the study;
- A package of information given to each teacher participating in the study. The package consisted of four items:
    1. A definition of terms and characteristics as shown in appendix F and G;
    2. A teacher's background sheet as shown in appendix H;
    3. A teacher-rating sheet as shown in appendix D; and
    4. A drawing task on a cat as shown in appendix I.
- A visit to the school by the researcher to observe a drawing lesson in each class participating in the research;

- A focused interview with the relevant teachers to discuss the characteristics located in the research literature and the modified draft descriptors;
- Application of the modified draft descriptors to the outcomes of the drawing lesson; and
- An interview and questionnaire for teachers to evaluate their findings.

The Drawing Tasks in the Sample Schools

After the three sample schools had been briefed they were given the option of how they would like to proceed with the drawing. The subject matter could be the same as the pilot school or could coincide with a current theme being studied by the class. The task involved a drawing of something from observation or memory on A4 paper.

School B responded using a variation of subject matter although some of the subject matter was similar:

- The year 1 class drew the teacher's doll in pencil on A4 paper;
- The year 2 class did observational drawings of clown puppets in pencil and coloured pastel on A3 newsprint;
- The year 3 class drew circles using their imaginations to represent flowers, suns, wheels, cakes, ice creams, and lollies in pencil on A4 paper;
- The first year 4 class drew clowns from their thoughts and memories in pencil on A4 paper;
- The second year 4 class drew toys from observation in crayon and dye on A3 cartridge paper;
- The year 5 class had a choice of drawing an observational study of a teddy or their sneaker in pencil on A4 paper;
- The year 6 and 7 class did an observational drawing of their shoe in pencil on A4 paper; and
- The year 7 and 8 class did a charcoal observational drawing of a child's tricycle on A4 paper.

School C had been working on the theme of cats, both domestic and wild, in their syndicate so decided to continue with the theme. Four classes from Years 4 to 8 participated in producing cat drawings in pencil on A4 paper. A special needs class of years 5 and 6 did another study of a bicycle in pencil on A4 paper.

School D also deviated from the cat subject and did the following:

- The new entrant class drew lambs from a study and memory in pencil on A4 paper;
- The year 3 class drew dogs from a study and observation in pencil on A4 paper;
- The year 5 and 6 class drew flowers in a vase from observation in pencil on A4 paper; and
- The year 7 and 8 class drew yachts from a study of the America's Cup in pencil on A4 paper.

The pilot school and one of the sample schools, with the exception of one class, stayed with the same subject matter and two of the sample schools explored a range of subject matter. The choice of subject matter was typical of subject matter used in schools using an environmental or topical approach. No teachers introduced an artist into their motivation of the lesson, although many of them focused on the realistic appearance and gave examples of structure of the topic and in some cases introduced the live item into the classroom. Many teachers used journals, storybooks, large glossy pictures, and toy animals as their resources.

Phase Five

Phase five was the analysis and writing up of the data along with producing the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. The data provided answers to questions that described the characteristics and qualities found in the participants' drawings as well as their feelings, images and impressions (Bouma, 1996). The researcher concentrated on collecting and interpreting drawings from participants. These drawings were ones teachers identified as displaying the characteristics identified in the literature review. Answering the questions in the research on both the theory and the data collected provided knowledge to teachers. Empirical evidence was produced from the observation of the drawing activity and the data collected from the literature review to formulate and test the identified characteristics. The answers were produced as a result of the evidence collected and evaluated. Qualitative research has the advantage of producing large amounts of information that can be focused and reflected on after the data collection (Bouma, 1996). The qualitative process compared similarities and differences in the drawings of research participants and studied the complexities and unique characteristics of

individual research participants (Rountree & Laing, 1996). The final decision as to the format of the teacher observation profile, the naming of the instrument, and the relevant factors to be included are presented. Although this is the final phase in the research project the teacher observation profile will need further evaluation over time. The final product and findings were relayed back to the schools involved. To disseminate the findings the researcher will consider appropriate educational journals, lectures and conferences.

3.3 DATA COLLECTION METHODS

In accordance with the action research design it was important to use a combination of procedures relevant to the process and product of the Visual Arts in order to yield different kinds of information. A study of the literature supported the view that teacher nominations for identifying gifted and talented children in the Visual Arts yield poor results (Clark & Zimmerman, 1992). Providing a structure for teachers to nominate students was shown to improve teacher nominations (Clark, 1989; 1995; 1996; Clark & Zimmerman, 1983; 1984; 1988; 1992). One key intention of the research was to encourage primary school teachers to use the teacher observational profile. In addition, the literature review (Gardner, 1982) revealed stages of growth and development, which could be evident in the junior classes of secondary schools. Therefore, the teacher observational profile could be applied at this level as well.

The sources of data were examined in relation to the five phases outlined in the action research process in this chapter. The sources of data were:

- Classroom observational methods explained in phases two and four;
- Portfolios of work samples including drawing tasks, see phases two and four;
- The draft teacher observational profile as outlined in the five phases;
- Questionnaires from respondents, see phases two, three and four; and
- Interviews to gain information from participating teachers, see phases two and four.

Portfolios of Work Samples

Some definitions of portfolios of artwork carry the assumption that a portfolio could contain a number of work samples produced by one child. The work samples would demonstrate a range of media, disciplines and subjects. In this study however, the

researcher did not view a portfolio of related series of work samples by one child, but rather collected one drawing sample from each child in the relevant categories. Children from both the pilot and sample schools produced drawing samples, which were placed in a *class portfolio*. Each class portfolio contained drawing samples and the researcher's data from the children in the selected categories.

There were two advantages of observing the students working and making a portfolio of drawing samples. Firstly, to observe the attitudes, problems and behaviours while drawing is in progress and secondly, to evaluate the drawing sample. Viewing the student at work gave valuable insights into the student's abilities to use artistic skills, techniques and expressive media. Clark and Zimmerman (1992) consider that exceptional abilities should not be the only factors assessed in reviews of students' work, but attention should also be given to the process when developing a product. To view the product without the process is to determine only part of the child's knowledge and skills (Zimmerman, 1992). To give a holistic profile on the participating children the researcher collected the following data for the portfolio:

- Preliminary sketches formulating thoughts and ideas prior to the commencement of drawings made by children;
- Notes observing attitudes, problems and behaviours while children were processing their drawings;
- Recorded information on informal discussions with teachers to draw on their knowledge of attitudes, problems and behaviours of children in the class; and
- The drawings, which were placed in the average, above average and exceptional categories by the teacher and the researcher using the teacher observational profile.

One of the problems associated with this process was the student who had potential talent but had not succeeded in producing exemplary results. For this reason the researcher gathered the children's drawings to corroborate with the teacher using the teacher observational profile.

Interviews

Interviews provided the opportunity for interaction and sharing of information. It was important to initiate open-ended exchange as well as receiving specific information

derived from the interview. Questions were asked of the teachers to glean in-depth responses that were not included in the questionnaire. They allowed the researcher to follow up on ideas, probe responses and investigate feelings which the questionnaire did not reveal (Bell, 1987). The focused interviews involved the questions shown in appendix H for questions allowing for the group process, discussion and elaboration to operate effectively (Anderson, 1990). The overall objective of the focused interviews explored issues to gain the teachers' perspectives.

Ethical Considerations

Educational researchers must conduct their studies within a framework of ethical deliberation and ethical practices, rules and conventions (Anderson, 1997). The following are considered to be the key ethical issues in respect to the research:

- Privacy, security and anonymity;
- Provision of clear, timely and appropriate information to the participants. The participants in this research must at all times know exactly what is required of them, how much time will be involved and what will happen to the information they provide (Bouma, 1993);
- Cultural sensitivity and appropriateness;
- Ensuring that the research process does not influence the study subject; and
- Ensuring timely, accurate and appropriate feedback to participants.

The following processes were employed in order to ensure that ethical considerations were appropriately addressed:

- Seeking informed consent in writing from schools to take part in the research proposal;
- Conducting the research in a professional manner (Bouma, 1993; Massey University, 1997);
- Ensuring confidentiality of data and information from the participants, including keeping of notes, recordings, surveys and other data in secure storage;
- Giving appropriate consideration to the participants while collecting data, including respect for culture and traditions;
- Providing verbal briefings for all participants as necessary and written information and background as appropriate; and
- Ensuring the accurate recording of data and reporting of research findings.

Limitations to the Observational Instrument

According to Clark and Zimmerman (1992) there are limitations to effective and efficient identification of gifted and talented children in the Visual Arts. There has been a progression from using a single categorical approach to a multi category approach in developing identification systems taking in dimensions not previously considered. If the researcher used a single categorical approach this could exclude children in the Visual Arts. The decisions on which measures to use could be based on speculation as there appears to be no agreed criteria derived from research findings about interrelationships of these measures. The instrument being formulated can be used in conjunction with other systems or by more than one observer. Development of the method drew on the literature review, the teachers and children from the pilot and sample schools as well as expertise from the professional panel. This instrument must be efficient and effective so that children are identified easily and fairly. It must not be so complex or inadequate that some children are overlooked. The instrument needs to be suitable for teachers to use in the primary school classroom, to nurture gifted and talented children in the Visual Arts for enrichment programmes.

3.4 SUMMARY

A broad action research process provided the framework for the development of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. Firstly, the qualitative process was explained in terms of a structured system for teachers to use in primary schools. The structured system needed to report information to teachers in a form with which they could identify. When developing the structured system for teachers to use the research process was reflective and interactive allowing for collaboration at each phase. The five phases along with the observation methods provided the design of the action research. Secondly, the research design needed to consult sources that were appropriate and report meaningful results. Phase one reported on the results of the literature review contributing a conceptual framework to be used in phase two. Phase two reported on three aspects from the association of working in the pilot school. Firstly, it reported on the teachers, children and the educational setting of the school and its connections with gifted and talented education in the Visual Arts. Secondly, reporting on the teacher's previous experience of administering an informal nomination system and highlighting the importance of the principles and timing of a

structured teacher observational instrument. Thirdly, reporting on triangulation as a means of developing the teacher observation instrument. Phase three reported on the structured questionnaire sent to the three groups of the professional advisory panel. This provided further clarification to support the characteristics found within the literature review in phase one and the children's drawings in the pilot school in phase two. It also commented on the effectiveness and efficiency of the teacher observational profile. Phase four reported on the trialing of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts in the three sample schools. This allowed for broadening the base of the educational settings, the subject matter of the drawing tasks and the resources, which were available within the schools. Phase five summarised and drew conclusions from each phase and the observational methods of the action research plan. Finally, the data collection methods were discussed describing the portfolios of work samples, the value of the interviewing process, the ethical considerations and the limitations of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts.

CHAPTER FOUR

TEACHER OBSERVATION PROFILE FOR GIFTED AND TALENTED CHILDREN IN THE VISUAL ARTS

The first section of this chapter examines how the instrument was developed, taking into consideration the literature review and the significant factors from the pilot school. This is followed by the analysis of the characteristics identified in the literature and the findings of the research carried out in the pilot school, the formatting of the teacher observational profile and how the profile could be used.

4.1 THE DEVELOPMENT OF THE INSTRUMENT

In compiling the description of characteristics it was important to focus on a single characteristic within each statement. Researchers such as Lowenfeld and Brittain (1946; 1987) and Gaitskell and Hurwitz (1975) when listing characteristics identifying gifted and talented within the Visual Arts, often combined several traits of a characteristic within a single statement. This caused contradiction and confusion within indications of characteristics. Torrance (1983) gave lengthy but well constructed descriptions of single characteristics. Lowenfeld and Brittain (1946; 1987) and Gaitskell and Hurwitz (1975), and Wachowiack (1985) combined both lengthy and short statements when explaining characteristics. Renzulli and Hartman (1972) and McAlpine and Reid (1996) grouped statements under appropriate headings. As there appeared to be no particular pattern, structure or format in explaining characteristics, the researcher's aim was to provide a clear and succinct statement which primary teachers would understand and use.

The selection of each characteristic was dependent upon the rationalisation of areas from the literature. When identifying and analysing the characteristics from the literature search two areas of study were investigated. The first area of study came from the children with special abilities. The second area of study came from the concepts of gifted and talented children in the Visual Arts. When several researchers revealed similar characteristics this gave justification to include a characteristic for the teacher observation profile.

The Analysis of the Characteristics

The initial seventeen characteristics were formed on the basis of the following three areas studied. They were the literature search, the drawing samples, and the knowledge of the three teachers in the pilot school.

1. The researcher identified **originality** as a characteristic after studying the literature. The Ohio report from the Department of Education (1992, p. 32) "shows a high degree of originality" states the existence of the characteristic. The rating scales devised by Renzulli, Smith, White, Callahan and Hartman (1979, p. 92) and cited again by Gallagher and Gallagher (1994, p. 256) cite surveys of originality to verify the existence of this characteristic in both the Visual Arts and Music. However, the equivocal characteristic identified "arrives at unique, unconventional solutions to artistic problems" could be true of the problem solving process and "as opposed to traditional, conventional ones" questions what tradition and convention might mean. A comparison given between "intellectually gifted children who tend to organise things sequentially, whereas creatively gifted children are likely to organise them in such ways as to show new or unusual relationships among them" (Torrance, 1983, p. 514) implies that intellectually gifted children do not have the same characteristics as creatively gifted children. The "ability to express a wide range of ideas with originality and imaginative quality" (Saunders & Schmidt, 1979, p. 102) explains ideas that can generate originality in an imaginative way. This statement is comparable to "invent new and unique ways to produce art works" (Elam, 1985, p. 92) which is generic and does not suggest that only ideas will create originality. The ability to be different and interpret differently from others gives the opportunity for a culmination of processes to be involved generated from ideas, the interpretation of artist and cultural models and how the child uses the media to produce original and unique artworks. Teachers A, B and C observed differences in children's artwork which they referred to as a display of originaliy, if the quality was unusual or distinctly different from the artwork of others.

2. An aspect of unique artwork can be the **realistic** quality; the ability to reproduce a photographic likeness to a subject using any discipline and media. The researcher noted that Teachers A, B, and C made no reference to this ability to achieve a

likeness to the source when debating characteristics for the formation of the instrument. However, both the children and the teachers strove to achieve this outcome in their teaching and learning processes when drawing images of a cat. When the teachers were questioned why this would not be included as a characteristic the response from the teachers was that all children exhibit a degree of realism but some artworks are more realistic than others. In the literature, the statement "are better able to see the underlying artistic structure of realistic subject matter" (Gaitskell & Hurwitz, 1975, p. 385) has a problem with the defining of realistic, which implies subject matter is realistic. Subject matter used by children in making artworks can come from any item or organism observed within inner or outer space. The question remains whether it is realistic or not. In the more traditional sense, it could be said in art history movements, especially in the fifteenth and sixteenth centuries during the high renaissance times, that art was highly realistic using subject matter and devices to create a photographic likeness to the subject. But since the advent of the camera in the early nineteenth century being able to give a 'true-to-life' likeness of the subject has paved the way for other styles to evolve which are not considered realistic. In art, styles are influenced by historical, social, political, scientific, mythological and cultural events. Since the renaissance times many styles have evolved such as abstract art and expressionistic art. However, realistic art still occurs within our society but does not necessarily come from realistic subject matter. Art can come from making a rendition of an abstract idea, concept, thought or feeling which is in the mind of the artist and not observed from a realistic source. The second part of the statement refers to being able to perceive the structure inherent within the picture making process, which can be discerned by the capable child as well as being analysed and interpreted within their artwork. The ability to see the artistic structure needs to be disentangled from this characteristic into a single characteristic and is included and explained within the composition characteristic.

Another characteristic within the realistic realm was "to demonstrate unusual attention to detail" (Gaitskell & Hurwitz, 1975, p. 385). This could occur in a realistic as well as a non-realistic context. "Precocious representational ability: possess a photographic mind, power of visualisation and draftsmanship" (Gaitskell & Hurwitz, 1975, p. 385) may indicate precocity but equally apply to a

fantasy art product. Gaitskell and Hurwitz, (1975, p. 385) also indicated that subject matter, which "shows greater facility with the 'true-to-life' appearance level" is a characteristic of children with special abilities. Although problematic in definition the statement of this characteristic implies inclusion given that observation of subject matter occurs frequently within the teaching and learning of making visual artworks and that the artwork is to show realistic 'true-to-life' features.

3. There is a close correlation between the defining of **observation** and the ability to be realistic. The child who "is a keen and alert observer; usually sees more or gets more out of a story, picture, film, sightseeing trip, etc." (Torrance, 1983, p. 514). Also the child who "is particularly sensitive to the environment; as a keen observer-sees the unusual, what may be overlooked by others" (Renzulli, Smith, White, Callahan & Hartman, 1979, p. 92). This is particularly evident in the child who possesses "a photographic mind, with a vivid recall of events engaged in or observed that distinguishes their efforts characterised by a richness of details" (Wachowiak, 1985, p. 82). These details can manifest themselves in a realistic manner through careful and accurate rendition of an observed scene. The gifted child is described as one who "is apt to respond to environmental observation/changes" (Ohio Department of Education, 1992, p. 21) and "is curious about the environment and art processes" (Elam, 1988, p. 107). They activate their "unusual powers of observation and recall of visual detail and overall structure" (Szekely, 1981, p. 70). This process allows the child to produce a realistic image which is true-to-life in appearance or strives toward other stylistic tendencies such as surrealism, abstraction, expressionism and the like. This option would normally come with maturation into adulthood. As children develop in age and progress through stages of growth and development the researcher has noted that they tend to aim to achieve a high degree of realisticness in their artwork. Observation is the ability to see the unusual that others may have overlooked which then may manifest itself into the product of a realistic artwork or may not. Through the process of observation one has the option of producing a realistic artwork describing an event, person, landscape, or still life. But in Torrance's (1983, p.514) view "a mark of creatively gifted children is the ability to imagine objects from different visual perspectives" and this comes from "a child who is an

alert observer". The three teachers in the pilot school did not place importance on observation even when children were using the skill of observation in their cat drawings.

4. **Visual memory** forms a close alliance with observation. To possess "a strong visual memory" (Ohio Department of Education, 1992, p. 32) is to be able to remember "vivid and accurate detail of contents of picture and objects" formed through daily perceptions (Wilson & Wilson, 1982, p. 162). To observe is to 'see' whereas the visual memory is the storing mechanism reactivating what has been 'seen'. Observation is not only a major function of the visual memory it is also dependent on it. If a child is not perceptive to their environment the storehouse of images will not operate effectively. Lark-Horovitz, Lewis and Luca (1967) explain possessing "a rich storehouse of images and ideas to draw from" comes from the "subject matter" which is "heightened by acute observation" (cited in Wachowiak, 1985, p. 80). This displays effectively "interplay between selective visual observations and a strong visual memory; retain impressions of things seen long ago" (Lark-Horovitz, Lewis & Luca, 1967 cited in Gaitskell & Hurwitz, 1975, p. 385). The emphasis in describing the precocity of visual memory is to possess a richer store of images and ideas.

5. **Technical skill** is to possess "advanced technical skills in an art medium" (Szekely, 1981, p. 70). This "technical ability" may be mastered in the "line quality and control" (Kay, 1982, p. 44) exhibited in a drawing. Coordination of the fine motor skills link together with the medium to produce "certain technical aspects of drawing-perspective, foreshortening, volume, shading, overlapping, spatial handling, and movement much sooner than their classmates" (Wachowiack, 1985, p. 82). The "mastery and retention of fundamental skills and ideas produce manual dexterity and craftsmanship" (Saunders & Schmidt, 1979, p. 104). These fundamental skills "are usually beyond the norm of their age group in developmental status, technical skill and aesthetic judgment" according to Gaitskell and Hurwitz (1975, p. 385). Technical skill can be identified in any art medium be it drawing, painting, printmaking, photography, sculpture or design.

6. **Problem solving** is the ability to solve graphic problems by depicting objects in new positions and from different points of view (Wilson & Wilson, 1982). This means the child is "flexible in trying many art solutions" (Elam, 1988, p.107). The process whereby the child "spontaneously designs" and "intelligently redesigns" (Saunders and Schmidt, 1979, p. 104) has the ability to "execute self-initiated problems" and see them through to a conclusion (Szekely, 1981, p. 70). Teacher C observed children from the ages of nine to eleven years who where brave and adventurous, trying new ideas without being afraid of failure. The children investigated complex problems down to the minutest detail. Teacher A referred to this minute detail as being intricate.

7. To use **colour** effectively children "use colour imaginatively making up their own palette of colours by combining the hues usually provided in class" (Wachowiak, 1985, p. 82). Teacher A had observed that young children liked colour, especially reds and bright colours, and liked to select and work with these colours regardless of media. The more able children can "use colour with subtlety as well as brilliance and is able to achieve contrast by well-balanced and integrated colouring" (Gaitskell & Hurwitz, 1975, p. 386). In handling colour these children achieve subtleties and contrasts of colour. (Lark-Horvitz, Lewis & Luca, 1967).

8. **Imagination** was a characteristic constantly referred to in the literature. To "display an active imagination" (Ohio Department of Education, 1992, p. 32) a child can be "imaginative in selection of subject matter" (Elam, 1985, p. 92). It can "bring into existence constellations or events that have not existed before" (Lowenfeld & Brittain, 1946, p.389) by "interpreting and communicating unique ideas, feelings, experiences and fantasies through art" (Elam, 1985, p. 92; 1988, p. 107). The "imagination can exhibit in a wide range of new ideas" (Szekely, 1981, p. 70). This "inventiveness" is the "imaginative ability" (Kay, 1982, p.44). Children, can be "both original and fertile in their fantasies and possess an imaginative ability to an extraordinary degree" (Gaitskell & Hurwitz, 1975, p. 386). Children, who "tend to choose subjects of fantasy, usually work with complex themes involving intricate structures and a host of participants for their art compositions" (Wachowiack, 1985, p. 82). Lowenfeld and Brittain (1946, p. 385) linked "fluency of imagination with expression and focused on the freedom

with which the child adapts their ability to a diverse situation". The reverse can also occur when children prefer to "present a commonplace subject more imaginatively and with greater variety of detail" (Gaitskell & Hurwitz, 1975, p. 386). Imagination is being inventive with subject matter.

9. When children who are artistically gifted and talented are working with **media** they work with ease and "are eager to explore media for original effects" (Gaitskell & Hurwitz, 1975, p. 386). They are "generally receptive to the use of new media, techniques and tools" (Wachowiak, 1985, p. 82) and show "a high degree of self-identification with subject matter as well as an intense feeling for the media" (Lowenfeld & Brittain, 1946, p. 385). Teacher B commented on children who often own lots of equipment, such as pencils, crayons, paints and books with illustrations showing how media has been used and pictures have been drawn. In the handling of media the researcher and the three teachers have observed that artistically gifted and talented children are receptive to media, techniques and tools (Department of Education, 1989).

10. **Composition** is a picture-making device and is central to the importance of making an artwork (Pierce, 1968). It is the arrangement or organisation of the essential elements that make up an artwork. The essential elements are made up from drawn or painted lines which make shapes, forms and spaces. These forms, shapes and spaces can have tones, colours, textures and patterns. These individual elements of composition relate to such items of how movement and rhythms occur throughout the picture space, or whether proportion, scale, viewpoint, symmetry or asymmetry have been employed. These elements along with others form interrelationships in the formation of the artwork (Lowenfeld & Brittain, 1946). Information about design skills uses the same process (Department of Education, 1989). Gifted and talented children easily grasp these picture-making elements and they know how to manipulate pictorial space to create unity between the elements as well as bring into existence unique products.

11. The most "pervading characteristic" of the gifted and talented child is the **development** process surpassing their biological peer group (Chetelat, 1981). Children "may develop a personal style of drawing or painting early in their

school years" (Wachowiak, 1985, p. 82) and jump "stages in learning" (McAlpine, 1996, p.2). A child can accelerate "through stages of growth in art experiences" and can progress rapidly through "scribble to symbolic to realistic" (Saunders & Schmidt, 1979, p. 104). Observation by the researcher and teachers A, B and C has shown that children, when making visual artworks, can deviate from the norm by accelerating through stages of growth development but not necessarily retain the observed growth. Whether this is a separate characteristic or whether it is a component of every characteristic needs to be determined.

12. The preference to be an **independent** worker is supported by researchers (McAlpine, 1996; Torrance, 1983; Wachowiak, 1985; Wilson & Wilson, 1982). Children who "prefer to work by themselves rather than in groups often use art activity as a retreat. They are oblivious to distractions when engaged in their art and often resent interference by classmates or teacher" (Wachowiak, 1985, p. 82). This calibre child is "generally self-motivated and engaged in art on their own-after school, at home, and sometimes, surreptitiously during other class times" (Wachowiak, 1985, p. 82). Sometimes this child can "minimise their other studies in favour of art experiences" (Wachowiak, 1985, p. 82). These children, "are characterised by a level of persistence and interest far beyond their classmates" (Gaitskell & Hurwitz, 1975, p. 385). To engage by oneself in an artistic endeavor requires not only intense interest but also a single mindedness of self-imposed goals. To realise these goals requires an inner compulsion to persist on art activities for a long period of time (Elam, 1983; 1985; 1988; Wachowiak, 1985).

13. "Sustained involvement in creating or in viewing works of art" (Szekely, 1981, p. 70) is an intrinsic quality of **concentration.** Renzulli, Smith, White, Callahan and Hartman in the Task Force statement (cited in Saunders & Schmidt, 1979) and the Ohio report from the Department of Education (1992) support this characteristic. Teacher C and the researcher had observed children in the new entrant class who had the ability to stay on task. They had observed children who not only stayed on task but also could return to a task after having a break from it. These children not only looked critically at their work but improved specific details in their artwork. Teacher B gave two examples which involved the characteristic of concentration. Her first example was of children who could change direction in their thinking to

create something new if progress was not being made in their art work. Secondly she had observed children who spent considerable time drawing in their own time during her class. Teacher C also noted concentration as a characteristic of these children. Children who exhibit this compulsion to pursue an art activity not only generate independent work habits and a lengthy concentration span but also are in pursuit of the ideal. This pursuit is about attaining the elusive, the unique, and the profound.

To study this view one needs to consider whether independence is dependent on concentration or concentration is dependent on independence. To question this is to ascertain whether independence and concentration are components of the same characteristic or are separate entities, which follow on from one another and require separate characteristics. Another element the three teachers and the researcher had observed was that some children were able to work independently and in group situations and achieve at an exceptional level of competence. This element must be considered in relation to the many cultural values of children in the classroom. Children who are able to work in group situations can also concentrate for long periods of time on an art activity, however there seemed to be a high correlation for the child who was mainly the independent worker to be exceptional in this respect. Even in a cultural context the carver who may be producing carving for a marae, although a cooperative venture, will work independently in the production of the carving. Regardless, one cannot ignore that the characteristic of concentration is evident in children who are independent workers, cooperative workers or work effectively in both situations.

14. **Self criticism** has been observed by the researcher in the classroom to take place only with the exceptional student in the Visual Arts. The child who "imposes self criticism in his or her creations" (Ohio Department of Education, 1992, p. 32) sets high standards and often reworks and refines their creations in order to meet personal expectations (Szekely, 1981). Torrance (1983, p. 514) supports this view when he states that the child who "strives toward perfection or excellence, is self critical. Most children are satisfied to complete or perform tasks satisfactorily.

This is not enough for creative children. They have an image of excellence of performance and strive for such an attainment".

15. The three teachers alluded to another characteristic, which aligns with being self-critical in the Visual Arts: the ability to express orally in a constructive manner their own and other's work "demonstrates the ability to critically **evaluate** art works" (Elam, 1985, p. 92; 1988, p. 107). These children "learn quickly to employ the vocabulary and language of art effectively and confidently and to critique and evaluate their art production in terms of composition and design fundamentals" (Wachowiak, 1985, p. 82). They form judgments and opinions on what has been achieved in their art making. Children who are able to review and reflect on their ideas, processes and products can make knowledgeable changes and respond to different situations. These changing situations can bring unpredicted outcomes and can indicate a student's inventive and imaginative behaviour (Department of Education, 1989).

16. Children learn to **respond** to sources of motivation. They respond, represent, explore, express, communicate, tell, and design. They learn about artists and their influences and the significance of cultures and societies. Children learn to respond to artistic devices in ways that can contribute to their art works (Department of Education, 1989; Ministry of Education, 2000). This particular characteristic was not evident in the overseas research but it is part of the content of the New Zealand Visual Art syllabus. The degree to which children relate the ideas of others and extend them was evident and reported on by the three teachers and the researcher.

17. To derive a deep **personal satisfaction** from involvement in art is to enjoy the creative process and involvement in producing artworks (Ohio Department of Education, 1992; Wachowiak, 1985). Research by Elam (1983; 1985; 1988), Szekely (1981), and Saunders and Schmidt (1979) explain personal satisfaction as a compilation of interest, enthusiasm and eagerness to express oneself, along with the enjoyment in participating in the challenges that difficult tasks and creative problems bring. It is the degree to which children display their capacity to

organise creative ideas along with the use of media and techniques which generates personal satisfaction.

In addition to the above list the other characteristics that were considered from the data from the pilot school were:

18. The use of the **artist model**, which is one of the learning and teaching devices included in the content of The Arts in the New Zealand Curriculum (1989; 1999).

19. The observation from the teachers in the pilot school identified children who were well equipped with a range of **resource** materials and equipment such as pencils, paints and books. These teachers also mentioned children who constantly use visual learning aids in their learning while carrying out Visual Art tasks. These visual aids are the resources for motivating children to learn in the Visual Arts.

20. Children who recognise the **skills** and abilities of their peers in the Visual Arts may not be identified by any other source. This characteristic and nomination process was a consideration in discussion with the three teachers in the pilot school when identifying children for enrichment programmes.

The sequence of the characteristics was put into broad categories of artistic skills followed by affective qualities. The number of categories were considered in relation to the literature search and the content of the Art Education Junior classes to Form 7 Syllabus for Schools (Department of Education, 1989) and the Arts in the New Zealand Curriculum: Draft (Ministry of Education, 1999). All categories were included that were revealed from the literature and the data from the pilot school.

The Inclusion of Significant Factors

The identified characteristics were then debated with the pilot school in conjunction with three factors:

1. The qualities and skills teachers A, B and C look for when recommending children for gifted and talented programmes in the Visual Arts;

2. Evidence of characteristics and qualities identified in the children's drawing samples; and
3. The qualities and skills the researcher looks for when working with gifted and talented children in the Visual Arts.

The characteristics from the literature were justified by the addition of the significant factors and established the formation of the draft characteristics. A characteristic was included if the literature revealed that it was comparable to the teacher's and the researcher's observations. These factors were significant as there is a paucity of research on gifted and talented children in Visual Arts education in New Zealand.

This additional information, although subjective, came from an informed source based on quality delivery of Visual Art teaching in New Zealand. The three teachers in the pilot school and the researcher gave the following data.

Teacher A

Teacher A was decisive on what she looked for when recommending children for Visual Art programmes at new entrant level. She listed the qualities and skills for five-year-old children in the following sequence and gave the following explanations in discussion with the researcher.

- Motivation: Whether the child responds to motivation on a particular subject given by the teacher, which includes a demonstration of techniques (Department of Education, 1989). The teacher sets up a working sequence when artwork is being produced. The teacher defines the application of fine detail to artwork as being intricate. Some children are aware that there is more than a basic shape and will experiment and add patterns and textures to enhance their work. They have the ability to stay on task by evaluating their work and improving the structure and detail as shown in figure 4.1.

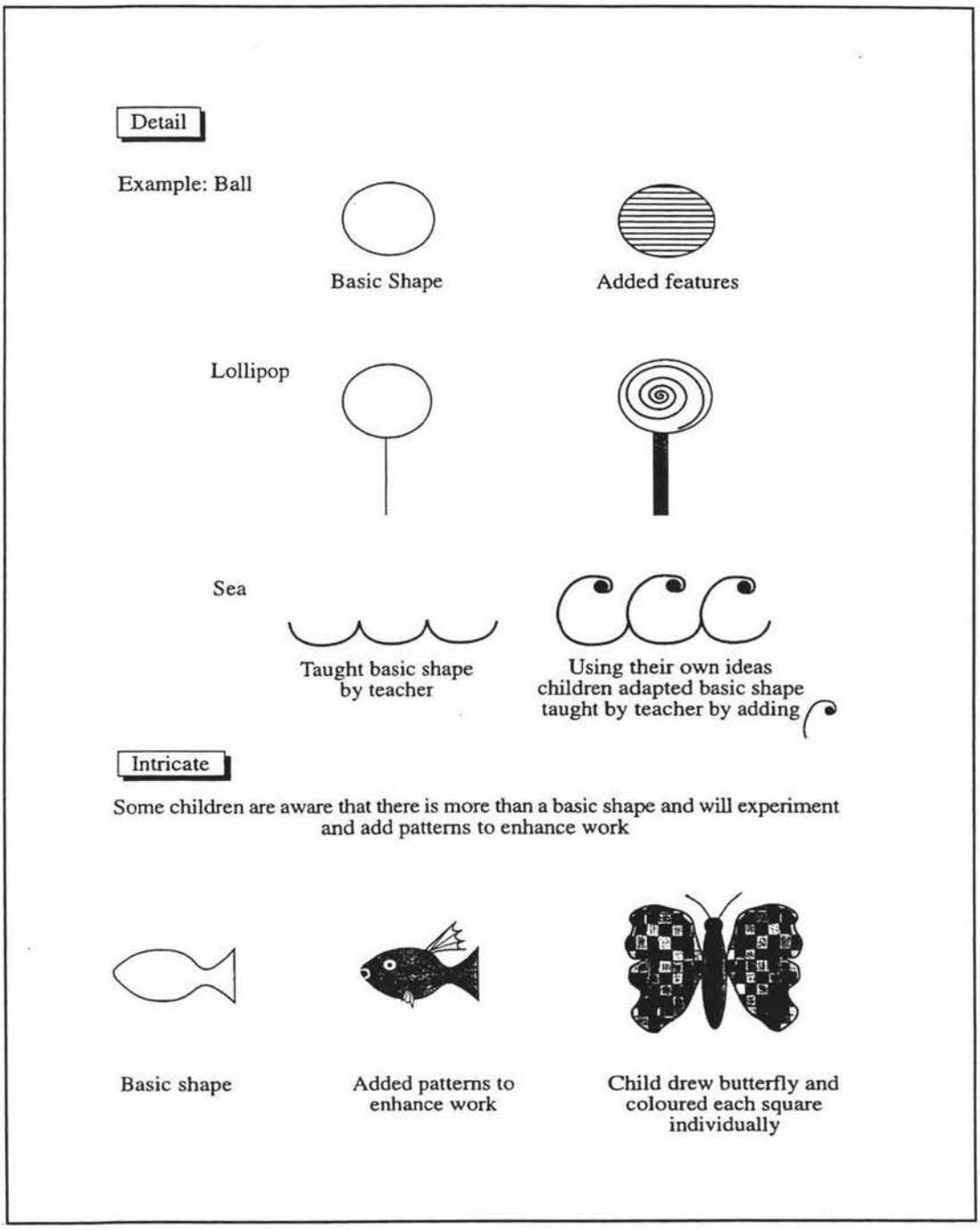


Figure 4.1 Visual Art qualities and skills looked for in children's artwork by Teacher A

- Ability to follow instructions: The ability by children to keep to a brief given by the teacher and not to follow what they want to do - and do their own 'thing'. For example it is essential for children to follow the teacher's instructions when using media like dye and paint and particularly when using cutting equipment. Children need to be able to use brushes and equipment without dripping paint and dye around the room. Dripping media over their own or others work can very easily destroy a piece of work. Children need to be able to use cutting equipment without damaging themselves or their work. Routines need to be followed to

ensure safe practices. By following the instructions and modeling of their teacher, acceptable behaviour and proper procedures are demonstrated which will avert dangerous practices (Department of Education, 1989);

- Fine motor skills: These are children who have control of the pencil, crayon or media, which make lines that join up without overlapping one another or cut paper without making jagged edges. These children demonstrate that they are in control of the media and equipment which they are using, rather than the media or equipment being in control of them;
- Colour: Skill in selecting and applying colour. Some children have a very good eye for colour and mix shades and combinations of colour that clash, contrast or compliment one another. These children work with a purpose when applying colour whether they are mixing a colour to describe the colour of the skin or a particular colour to contrast with another to show a light with a dark area in a painting. Often these children when scribbling with colour are playing and investigating colours rather than aimlessly wasting paint (Lowenfeld & Brittain, 1970); and
- Ability to talk constructively about their own and other's work.

Teacher B

Teacher B held the view that for any child to be considered creative they must meet a number of criteria. These are listed according to this teacher, in the following order:

- That they can change and respond by themselves in different situations;
- They are fluent and ideas come easily;
- They are original, able to interpret ideas differently from others and able to be individualistic;
- Able to change when things aren't going well and create something different;
- Have skills that are obvious to the observer such as manipulating media and ideas for painting and drawing;
- Give attention to detail and space;
- Draw out of class time;
- Presentation of work often shows perfectionist qualities;
- Often own lots of equipment such as pencils, crayons, and books;
- Able to express themselves orally;
- Ability to complete work;

- Possess design skills of creating and making; and
- Children often recognise their own talents or those who see them as talented.

Teacher C

This teacher recommended the following qualities and skills for children between the ages of nine and eleven years for Visual Art programmes:

- Detail dealing with complexity;
- Originality;
- Being brave and adventurous to try new ideas without being afraid of failure;
- Work to be bold and clear; and
- The ability to concentrate and stay on task.

The Researcher

In viewing a child of exceptional qualities in the Visual Arts the researcher investigates the following artistic skills:

- The perceptual ability when investigating a concept or idea;
- How the equipment, media and techniques are being used;
- The ability to use the imagination to investigate, find, analyse and solve an artistic problem; and
- To recognise the most suitable point to resolve a Visual Art product.

The outcome of these observations reveals unique individuals, with original and creative achievements. These children operate in realms with abilities well beyond their peers. When appraising affective qualities in these children experience has shown the following behaviours:

- Highly motivated, interested and responsive to the Visual Arts;
- Commitment and persistent inquiry into the Visual Arts;
- Perfectionist traits well beyond the norm;
- The need to be in an artistic environment to pursue their passion;
- Critical, evaluative and reflective continually searching for new directions and answers to solving problems and ideas;
- An acute visual memory from observing their environment and ideas;
- Often experience problems in completing artwork;
- Easily abandon artwork and throw it away;
- Require support and mentoring;

- Do not always articulate their ideas and concepts well but rather "sense" their mode of expression; and
- Do not always understand why they work in a particular way or genre.

This body of knowledge contributed to the study and was acknowledged in the formation of the characteristics for the teacher observation profile.

4.2 FORMATTING THE TEACHER OBSERVATION PROFILE

The literature revealed a number of factors to be considered for the format of the teacher observation profile. The matrix in Table 4.1 gives information found from the research and describes the following:

- The name of the researcher from the literature review;
- The format used by the researcher;
- The name of the tool given by the researcher;
- The number of characteristics used in the researcher's tool;
- The scaling system; and
- The number of characteristics used in the tool by the researcher.

Table 4.1 Data Matrix from Literature Search

Name of Researcher	Format of Tool	Name of Tool	Scaling System	Scoring System	Number of Characteristics Used
Elam, 1985; 1988.	A numbered checklist.	Screening in the Visual Arts.	Below normal expectations Average expectations Above normal expectations.	Add total column. Multiply by weight. Add weighted column totals.	10
Gaitskell and Hurwitz, 1975.	A numbered list.	Characteristics of Gifted Children.	No scaling system.	No scoring system.	13
Gallagher, 1994.	A numbered list.	Scale for Rating Behavioural Characteristics of Superior Students.	1.Seldom 2.Occasionally 3.Often 4.Almost 5.Always	Add 3s and 4s to give a score.	37
Kay, 1982.	A numbered list.	Portfolio evaluation.	List 1,2,3,4.	Add number of ticks.	4
Ohio Department of education, 1992.	A numbered checklist.	Visually Artistic Profile Checklist.	1.Seldom 2.Occasionally 3.Often 4.Almost 5.Always	No scoring system.	10
Renzulli and Hartman, 1972,	Grouped under 4 categories.	Scale for Rating Behavioural Characteristics of Superior Students.	1.Seldom 2.Occasionally 3.Often 4.Almost 5.Always	Add 3s and 4s to give a score.	37
Szekely, 1981.	A numbered checklist.	Checklist for the Identification of the Artistically Gifted.	Answer yes or no.	No scoring system.	19
Torrance, 1983.	List in no order	Indications of precocity.	No scaling system.	No scoring system.	10
Wachowiack, 1985.	List in no order.	Characteristics of Gifted Children.	No scaling system.	No scoring system.	18

The following aspects were formative decisions, which were debated further in phase three of the research design by the professional panel.

The Keywords

Establishing a keyword at the beginning of each statement, thus making each characteristic easy to identify when scanning the profile for particular characteristics, was significant. The researcher often uses this strategy when designing forms for educational contexts. This concept was also used by Elam (1985; 1988). The keywords were identified from analysis of the literature and the data from the pilot school.

The Format

Teachers prefer information to be compact and on a single sheet of A4 paper. Comments describing observations of characteristics found in children's artwork are important. Both these aspects were priorities for the three teachers in the pilot school and the researcher.

The Name of the Instrument

The name of the instrument was determined by the purpose of the research, as a teachers' observational profile for identifying children who are gifted and talented in the Visual Arts.

The Criteria

In designing the criteria for the scaling system Gallagher (1994); McAlpine and Reid (1996); Ohio Department of Education (1992) and Renzulli and Hartman (1972) used a frequency scale shown in figure 4.2.

1. Seldom	2. Occasionally	3. Often	4. Almost Always

Figure 4.2 Frequency Scale

This scaling system comes from the general literature on gifted and talented children and not from the Visual Art literature on gifted and talented children. The pilot school used a different four-scale model in the assessment of children's work which had been well trialed by the school shown in figure 4.3.

1. Attempts the activity	2. Can do most of it	3. Can do it	4. Can do it very well

Figure 4.3 Pilot school criteria

The decision was to trial four criteria as used in both the literature and the pilot school. However the pilot school's model, when describing the criteria, was not based solely on frequency as was the literature model. The fourth criteria was different from the other three as it expressed frequency and the quality of the occurrence. The researcher favoured this as it aligned with the qualitative process and the Visual Arts phenomena. In appraising and evaluating children's artwork, educators investigate the qualities of the inherent properties found within artwork not the frequency of the occurrence.

The Scoring System

No scoring system was used in any of the models by educationalists in the Visual Arts literature. The researcher followed the model that McAlpine and Reid (1996) had adapted from Renzulli and Hartman (1972).

4.3 USAGE OF THE TEACHER OBSERVATION PROFILE

This instrument is for children who *visually* exhibit characteristics that qualify them as being gifted and talented in the Visual Arts. The following factors apply in the administering of the profile.

1. A profile would not be utilised for:
   - Those who may exhibit the characteristics, but not to the required level;
   - Those who do not exhibit any of the characteristics;
2. This profile may not apply to all disciplines within the realm of the Visual Arts;
3. Not all characteristics may apply at any one time;
4. Some characteristics may not apply to all age groups. Therefore, it is important to make sure that all known characteristics are included in the instrument to cover the aspects which indicate precocity in the Visual Arts; and
5. Children who are borderline, enigmatic or have previously used this or other means of identification may require further confirmation of their abilities and characteristics (McAlpine and Reid, 1996).

So that primary teachers will use the teacher observation profile they must understand how the characteristics can be identified and how the instrument can be administered to children in their classrooms. The instrument may also be used in conjunction with other identification methods to identify gifted and talented children in the Visual Arts.

4.4 SUMMARY

The literature reviewed in phase one and the findings from the pilot school in phase two provided the basis for the formation of the teacher observation profile. This was established initially from the literature review in conjunction with the knowledge provided by the pilot school. The action research process involved collaboration with practising teachers to produce an identification instrument that would have practical application. In establishing the teacher observation profile for identifying gifted and talented children in the Visual Arts, the information that needed to be included was:

- Date of recording, student name, class and year, age and teacher;
- Criteria and comments;
- Characteristics that were accurate, precise and clearly stated with keywords at the beginning of each statement; and
- A scoring system that gave clear, accurate information and could be used and understood by teachers.

The initial formation of the instrument was established so a profile could be formed for each child who was rated in the study. The profile would reveal the characteristics that the child exhibited based on the observational evidence shown in children's work samples and the teacher's knowledge based on general observation and knowledge about the child. The first profile formulated is shown in appendix J with nineteen characteristics, four criteria and a scoring process.

CHAPTER FIVE

TWO MODIFICATIONS TO THE TEACHER OBSERVATION PROFILE FOR GIFTED AND TALENTED CHILDREN IN THE VISUAL ARTS

This chapter reports on the results of phase two. The results from phase two involved two modifications to the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. The first modification was made with the three teachers in the pilot school prior to application to the work samples and is shown in appendix K. The second modification was made as a result of the findings of the work samples from the cat drawings in the pilot school and is shown in appendix L.

The first section, explains why changes were made to the keywords and statements of the characteristics of the teacher observational profile, which occurred prior to testing the instrument with work samples in the pilot school. This provided the first modification of the teacher observational profile. The second section explains the changes made to the characteristics of the first modification of the teacher observational profile which occurred after testing the instrument with the work samples in the pilot school. This provided the second modification of the teacher observational profile. The second modification also explains the rating of the characteristics to the scoring system and the analysis of the changes that were made. The third section discusses the role of the characteristics in relation to the two modifications, the rating of the children into categories to identify characteristics and the pattern of characteristics. The fourth section provides a summary of the results from the two modifications.

Taking the empirical approach the researcher is not confirming the characteristics for the instrument but searching for evidence of characteristics for the teacher observational profile (Harker, 1998). Once the characteristics are identified for inclusion in the teacher observational profile, the problem still remains as to whether they are the valid characteristics or not. Conjecture by the researcher implies they may be the characteristics, so further testing is required to search for evidence and if required, the

elimination or addition of some characteristics. This builds a new conjecture from which to interpret the evidence.

5.1 THE FIRST MODIFICATION

The first modification to the teacher observation profile was made with the three teachers in the pilot school. This was done prior to the sampling of the teacher observation profile in the pilot school using the cat drawings as work samples. Although the characteristics were identified in the initial formation of the teacher observation profile, a review was carried out to check keywords and improve definitions of statements that were not explicit prior to testing the instrument.

The following modification was made to clarify the meanings of the keywords and the statements to describe the characteristics.

1. **Originality**: Two statements were given for this characteristic. This would cause confusion as to which to select. The first statement was selected which aligned to the definition given by the teachers in the pilot school.
   Originality: Is able to be different or interpret differently than others.

2. **Representational**: This keyword was problematic and did not explain the definition of the statement. The keyword was changed to align with 2 of 4.1.
   Realistic: Shows greater facility with the 'true-to-life' appearance level.

3. **Visual Memory**: 'Of items seen (observed)' was removed from a section of the sentence. This was removed as the sentence implied that seeing images was the only mode of retaining images and ideas.
   Visual Memory: Possesses a richer store of images and ideas through retaining impressions.

4. **Observation**: This keyword and statement was confirmed and remained the same as written in the formation of the instrument.

5. **Technical Skill**: The grammar was improved by adding the word "an".
   Technical Skill: Has advanced technical ability in an art medium.

6. **Problem Solving**: This statement was changed as it was inferring that problem solving occurs only in design and did not include other fields of the Visual Arts such as painting and drawing.
   Problem Solving: Has innovative approaches to problem solving.

7. **Colour**: This was describing the selection and application of colour and not the dimensions of colour. In re-writing this statement the researcher aligned the definition to 7 of 4.1.
   Colour: Is able to achieve colour subtleties, contrasts and integration of colour.

8. **Imagination**: This keyword and statement was confirmed and remained the same as written in the formation of the instrument.

9. **Media**: This keyword and statement was confirmed and remained the same as written in the formation of the instrument.

9a. **Design**: This was an additional statement that was added to the characteristics that had not been previously included. This came from the essential skills in The New Zealand Curriculum Framework (1993).
   Design: Is quick to see patterns and relationships.

10. **Structure**: This statement was re-written and the keyword changed. The original statement did not explain the phenomena involved in picture making as described in 10 of 4.1.
   Communication: Easily grasps picture-making concepts of space, composition, movement, etc.

11. **(Artist) Model**: This keyword was exchanged for a broader definition to the word **knowledge** and the statement was modified to align to the keyword. This change still encompassed engagement with the artist model but included other methods of learning as well, such as observational processes.
Knowledge: Is able to respond to the ideas of others and extend them.

12. **Motivation**: This is a process of instigating learning and teaching in the curriculum and was not considered a characteristic specific to gifted and talented children. This statement was incorporated into the knowledge keyword and statement along with the (artist) model characteristic.

12a. **Independence**: This has been added to the characteristics and is described in 12 of 4.1.
Independence: Prefers to work independently.

13. **Self critical**: This keyword was modified to *self criticism.* This changed the keyword to a noun. Self critical has a negative implication of one-self whereas the change implied a positive approach to being self confident in the pursuit of perfection and excellence.
Self criticism: Strives for perfection and excellence.

14. **Evaluation**: Two statements were given for this characteristic. This would cause confusion as to which definition to select. The statement was modified from the two statements given in the formation of the instrument to define the meaning.
Evaluation: Ability to evaluate about own or other's work, constructively.

15. **Development**: This statement was modified to clarify the definition of the characteristic as described in 11 of 4.1. It also aligned to the statement given in The Teacher Observation Scales For Identifying Children With Special Abilities (McAlpine & Reid, 1996).
Development: Jumps stages in learning or accelerates through stages.

15a. **Self-determination**: This is an affective characteristic that has been added to the characteristics and was included in the Teacher Observation Scales for Identifying Children with Special Abilities. (McAlpine & Reid, 1996).
Self-determination: Expresses ideas, preferences and opinions forthrightly.

16. **Participation**: Participation was removed as a keyword and personal satisfaction was used instead. The original statement began with personal satisfaction. The rest of the statement remained unchanged as described in 17 of 4.1.
Personal satisfaction: From involvement in Visual Art activities.

17. **Concentration**: This keyword and statement was confirmed and remained the same as written in the formation of the instrument.

18. **Resources**: This keyword and statement was confirmed and remained the same as written in the formation of the instrument.

19. **Skill**: This characteristic was deleted as it was considered that it could not be measured or rated.

The number of criteria and the scoring process remained the same. The only change that took place was a minor change in the first criteria where the definition was changed from activity to task. The definition of activity means a "particular pursuit" (Thompson, 1995, p. 1426) whereas task means "a specific piece of work to be undertaken" (Thompson, 1995, p. 1426).

Analysis

One characteristic was deleted and one characteristic was combined into another. Three characteristics were added to the list taking the number of characteristics from nineteen to twenty. The two changes made to the keywords suggest that the majority of these now explain the characteristics. Further development was required for over half of the statements. Ongoing critical review of the definitions within the statements was needed given the complexity and difficulty as described in section 2.1. Minor changes were

made to the criteria, format and scoring. The keywords were highlighted in bold to assist the efficiency of the 'reading' of the teacher observational profile.

5.2 THE SECOND MODIFICATION

The second modification was made to the teacher observational profile from the findings of the work samples of the cat drawings produced in the pilot school. Clarification and modifications were needed resulting from the analysed data from the work samples in the pilot school.

1. **Originality**: No change required.

2. **Realistic**: Removal of "greater facility" as this is inherent in the criteria.
   Realistic: Shows the 'true-to-life' appearance of subject matter.

3. **Visual Memory**: Removal of "richer" as this is inherent in the criteria and through retaining impressions. This is similar and repeating what is already written in the statement.
   Visual Memory: Possesses a store of images and ideas.

4. **Observation**: No change required.

5. **Technical Skill**: Removal of the word "advanced" which is inherent in the criteria.
   Technical Skill: Shows technical ability in an art medium.

6. **Problem Solving**: Changed "problem solving" to "solving problems" to improve definition and grammar. In the Visual Arts, one is solving problems.
   Problem Solving: Has innovative approaches to solving problems.

7. **Colour**: No change required.

8. **Imagination**: A rewrite to clarify the confusion in the statement. Subject matter

is a broad term that encompasses ideas, feelings, experiences and fantasies.
Imagination: Is inventive with subject matter.

9. **Media**: Exchanged the word "advanced" which is inherent in the criteria for "receptive".
Media: Receptive to media, techniques and equipment.

10. **Design**: This was incorporated into the composition characteristic. Design was not considered a separate characteristic but integral to the structure of the Visual Arts.

11. **Communication**: Exchange of the key word "communication" to "composition". This is explained in the first modification of this chapter for this characteristic. The statement was also refined to align with the keyword.
Composition: Understand the arrangement of picture-making and design skills, i.e. shape, texture, space, movement, etc.

12. **Knowledge**: Exchange of the keyword from "knowledge" to "response" with a minor modification to the statement to align with the keyword.
Response: Is able to articulate the ideas of others and extend them.

13. **Independence**: Exchanged "prefers" for the verb "able" at the beginning of the statement.
Independence: Able to work independently.

14. **Self criticism**: No change required.

15. **Concentration**: No change required.

16. **Self-determination**: This characteristic was found to be not necessarily specific to gifted and talented children.

17. **Evaluation**: Removed the words "about" and "constructively" to refine the statement.
    Evaluation: Ability to evaluate own of other's work.

18. **Development**: Removed the words "jumps stages of learning" from the statement as the acceleration of learning can imply jumping stages.
    Development: Accelerates through stages of learning.

19. **Personal Satisfaction**: No change required.

20. **Resources**: This characteristic was not able to be monitored and may not apply to only gifted and talented children.

Analysis

No characteristics were added and three were deleted. One of the characteristics was incorporated into another characteristic. The number of characteristics was reduced from twenty to seventeen. Difficulty was experienced in finding the appropriate words to explain two of the keywords of the characteristics. Further development was required to the definitions of over half of the statements of the characteristics. Modifications were made to improve grammar and refine definitions that were already formulated.

The language of the criteria was problematic and did not indicate how well a child carried out a characteristic. The third criteria of "can do it" was particularly problematic and was not used by the teachers. This indicated that four criteria were too many and three were more specific to the purpose. The decision was made to change two of the criteria to align with the literature used in the general education of gifted and talented children (Renzulli & Hartman, 1972; McAlpine & Reid, 1996). The third criteria came from the gifted and talented literature in the Visual Arts (Ohio Department of Education, 1992). Although this decision was made, further sampling was required to observe more work samples. The researcher was undecided as to whether frequency or quality of a characteristic was required or a combination of both. The criteria were modified for the second modification to include a combination of frequency and quality.

1. Occasionally	2. Usually	3. Exceptional

Figure 5.1 The criteria for the second modification

The scoring system was interpreted in different ways. The three teachers in the pilot school were initially critical of the process and were given guidance on how to operate the system. Teacher A ticked the observed characteristics but did not record the addition of the characteristics as a score. Teacher B completed the scoring system. Teacher C did not use the scoring system but ticked the column where a characteristic applied and only added some of the children's ticks on some of the profiles. The teachers had used the scoring system in three different ways based on their understanding of the system.

Rating the Characteristics to the Scoring System

Teacher A used nineteen of the twenty characteristics considering *originality* not observable in this lesson on drawing. In rating child 1, the teacher observed and rated eleven characteristics in the *can do it well* category and five characteristics in *can do most of it* category. As the child scored the greater number of ticks in the highest category she assumed that the child had strengths in the characteristics according to the evidence found in the process involved in making the drawings. This teacher did not consider that a child was better than another because of the scoring system. Each child was not competing against another for a score. If child 1 has eleven characteristics in the highest criteria and child 2 has seven different observable characteristics in the same category then this does not necessarily make child 1 better than child 2. It means that child 1 and child 2 have shown exceptional qualities in the characteristics observed and each child has shown different characteristics. These children were showing qualities in the observed characteristics in this particular lesson according to their graphic development and their learning about cats. Any child who had ticks in the highest criteria rating had exceptional qualities in the characteristics identified by the teacher but some children displayed more than others.

Teacher B used the twenty characteristics to rate her class and used the scoring system without difficulty. Child 17 was rated with eleven characteristics in *the can do most of it* column and seven in the *can do it very well* column giving weighted scores of thirty

three and twenty eight respectively. Child 11 was rated with four characteristics in the *can do most of it* criteria and sixteen in the *can do it well* criteria giving weighted scores of twelve and sixty-four respectively. Child 17 was eight years old and child 11 was seven years old. However, when observing the finished drawings the researcher found very little *difference* between the drawings. Child 17 was a year older and had a score of twenty- eight in the *can do it well* criteria and child 11 was a year younger and had a score of sixty- four in the *can do it well* criteria. The scoring system was placing child 17 well above child 11.

Teacher C used the twenty characteristics to rate her class and used a combination of two techniques in the scoring system. Child 21 was given the majority of ticks in the *can do it very well* column with a few ticks in the *can do most of it* column. No ticks were added and recorded but the researcher was able to clearly observe the pattern of characteristics in this child. Child 26 was rated highly by the teacher by scoring nineteen ticks in the *can do it very well* column. Out of the nine profiles given for this class, four had the number of ticks added in a figure and recorded and the other nine did not. The approach observed in this teacher was to see what the difference would be by varying the process.

The three teachers, by using their individual interpretations of the scoring system, provided valuable data. Teacher A, in not using the weighted part of the scoring system, was able to focus on the characteristics that children revealed. Teacher B, by following the directions of the scoring system, was able to identify the conflict of the scoring process to the characteristics. Teacher C's findings also supported that if educators are interested in observing the pattern and type of characteristics revealed by an individual profile for a gifted and talented child in the Visual Art, the scoring system may not be necessary. The evidence of this initial pilot indicates that a scoring system could be removed. The scoring system was not understood in its present form so it was changed to align to The Teacher Observation Scales For Identifying Children With Special Abilities (McAlpine & Reid, 1996).

5.3 THE CHARACTERISTICS

This section discusses the characteristics in relation to the results from the findings in the pilot school after applying the teacher observational profile. The three teachers and the researcher observed evidence of the characteristics in both the process and the completed work samples of the cat drawings.

The three characteristics that were visually informative and particular to the Visual Arts and were observed throughout the process of producing the work samples were technical skill, media and colour. The seven characteristics observed which contributed to visual thinking were originality, observation, visual memory, problem solving, imagination, design and communication. These characteristics contributed to making the technical skill, media and colour visible. The seven general characteristics were knowledge, independence, self criticism, concentration, self-determination, evaluation and personal satisfaction. These characteristics contributed to the visual thinking and thus to the visibility of the characteristics in the cat drawings. The realism characteristic relates to a stage in the graphic development of the child and is a stage that some children attain. In the process of creating the cat drawings, the researcher observed that the three teachers were working towards this common end of achievement. The resources characteristic is explained in section 5.2.

Rating Children into Categories to Identify Characteristics

The three teachers rated the work samples of the children's drawings at the end of the school day. This was for three reasons. Firstly, to ensure sufficient time was available to discuss and rate the work samples and therefore, make informed judgements. Secondly, to ensure children were not available to witness the rating process thus giving teachers the opportunity to make honest and unbiased judgements of the work samples. Thirdly, to ensure that sufficient physical space was available to exhibit the work samples so comparisons could be made between the children's cat drawings within the rating process. The first stage of the rating process was to place the children's work samples into three broad categories of below average, average and above average. No teacher placed work samples into a higher category, considering that no children operated in a realm well above their peers.

Teacher A used 18 of the characteristics whereas teachers B and C used all of the characteristics when rating the children in their classes. Teachers B and C conferred informally throughout the process whereas teacher A only conferred with the other teachers when interviews took place reporting on the findings. Teacher B supplied support to Teacher C although each teacher rated their own class with the researcher observing and conferring with each other on their findings when focused interviews occurred. Teacher A rated two out of six children in the above average category. These children were five years old. Teacher B rated twelve out of twenty seven children in the above average category. Three children were seven, eight children were eight and one was nine giving a difference of two years between the ratings of this group. Teacher C rated eight out of twenty nine children in the above average category. Three children were aged nine and five aged ten years.

The Pattern of Characteristics by Teacher A

The pattern of characteristics observed by teacher A and the researcher with six children in the *can do it very well* column are shown below and marked with an asterisk.

Table 5.1 The Pattern of Characteristics and Profiles Given to Six Children in the Can Do It Well Category by Teacher A and the Researcher

Child Characteristics	1	2	3	4	5	6
1. Originality						
2. Realistic			*			
3. Visual Memory	*		*		*	*
4. Observation	*					
5. Technical Skill	*				*	*
6. Problem Solving	*				*	
7. Colour				*		*
8. Imagination		*			*	
9. Media	*		*	*	*	*
10. Design						
11. Communication		*		*		
12. Knowledge		*		*		
13. Independence	*	*		*	*	
14. Self Criticism	*				*	
15. Concentration	*			*	*	
16. Self-Determination		*			*	
17. Evaluation		*				
18. Development	*					
19. Personal Satisfaction	*					*
20. Resources	*	*		*	*	*

Administering the first modification of the teacher observational profile to the work samples of the cat drawing, teacher A took into account what she knew about each child. This was based on current artwork produced and her ongoing observations of the progress of each child. The teacher closely monitored these children and was aware of their behaviours, attitudes and abilities. Colour was not included in these drawings although the teacher used this characteristic according to her knowledge of this characteristic as it applied to particular children.

The results from Teacher A's application of the first modification of the teacher observational profile were as follows:

Table 5.2 How Many Times Teacher A Used the Characteristics.

No of times used	Characteristic
5	Media, Resources
4	Visual Memory, Independence
3	Technical Skill, Concentration
2	Self Criticism, Knowledge, Communication, Colour, Problem Solving, Imagination, Self-Determination, Personal Satisfaction
1	Realistic, Observation, Evaluation, Development,
0	Originality, Design

Eighteen of the twenty characteristics were used at least once and the characteristics shown in table 5.2 are as follows:

- Five, four and three were classified in the high distribution of the rating;
- Two were classified in the average distribution of the rating; and
- One was classified in the low distribution of the rating.

There were six out of the twenty characteristics that were the most commonly observed by teacher A. Priority was given to media and resources followed by visual memory, independence, technical skill and concentration. This teacher is verifying that media and technical skill as characteristics explained in section 4.1. of chapter four, should be evident within this age group. Visual memory, independence and concentration are also highlighted for this group of children in activating the visual thinking process. The abundance of pencils and markers in supply to these children was acknowledged by this teacher but does not relate to just the Visual Arts.

The Pattern of Characteristics by Teacher B

The pattern of characteristics observed by teacher B and the researcher with twelve children in the *can do it very well* column are shown below and marked with an asterisk.

Table 5.3 The Pattern of Characteristics and Profiles Given to Twelve Children in the Can Do It Well Category by Teacher B and the Researcher

Child Characteristics	7	8	9	10	11	12	13	14	15	16	17	18
1. Originality		*	*	*		*	*	*	*	*	*	
2. Realistic						*	*					
3. Visual Memory	*	*			*	*					*	
4. Observation	*		*			*			*		*	
5. Technical Skill						*					*	
6. Problem Solving							*	*			*	
7. Colour		*	*		*	*		*			*	
8. Imagination				*		*		*				
9. Media											*	
10. Design			*	*			*	*			*	
11. Communication		*			*	*	*		*	*	*	
12. Knowledge					*			*		*	*	*
13. Independence			*	*		*	*	*		*	*	
14. Self Criticism			*					*				
15. Concentration		*					*			*	*	*
16. Self-Determination							*					*
17. Evaluation						*	*				*	*
18. Development		*			*				*		*	
19. Personal Satisfaction	*	*	*		*	*	*	*		*	*	*
20. Resources			*		*	*	*	*	*	*	*	

An analysis of these results from teacher B who rated twelve children in the *can do it well* column are as follows. Four children out of the twelve were rated highly in the *can do it well* column of the teacher observational profile. Child 17 showed evidence of sixteen characteristics that were clearly ahead of child 12 with twelve characteristics and child 13 and 14 with ten characteristics. The other eight children ranged from seven to three characteristics in this high rating. The results show that at least two of these children, child 17 and child 12 identified a comprehensive number of characteristics and abilities in the gifted and talented range within the Visual Arts field.

Child 17 had sixteen characteristics and child 12 had twelve characteristics. Ten of the characteristics were shared. These were originality, visual memory, observation, technical skill, colour, communication, independence, evaluation, personal satisfaction and resources. The characteristics that child 17 exhibited that child 12 did not at this level were problem solving, media, design, knowledge, concentration, and development. Child 12 exhibited realistic and imagination which was not evident at this level in child 17.

In administering the first modification of the teacher observational profile to the work samples of the cat drawings teacher B followed a similar procedure as teacher A. She took into account what she knew about each child based on current artwork produced and her ongoing observations of the progress of each child. Her knowledge of most of the children in the class was substantial at this stage of the year. Application of colour was not included in this drawing task although she chose to use this characteristic according to her knowledge as it applied to particular children. She was keen to trial the twenty characteristics to see if they were relevant or not to this task.

This teacher applied two sets of rules in trialing the characteristics. She used one set of guidelines for the characteristics she observed in the drawings and another set of guidelines for what she knew about the children's artwork where the characteristics were not evident in the cat drawings. She let the fact that she wanted to trial all of the characteristics determine her pattern of identification instead of relying on strictly observable evidence, shown in the process and the product of the drawings.

Table 5.4 How Many Times Teacher B Used the Characteristics

No of times used	Characteristic
10	Personal Satisfaction
9	Originality
8	Resources
7	Independence, Communication
6	Colour
5	Design, Concentration, Knowledge, Visual Memory, Observation
4	Evaluation, Development
3	Imagination, Problem Solving
2	Technical Skill, Self Criticism, Self-Determination, Realistic
1	Media

The twenty characteristics were used at least once and the characteristics shown in table 5.4 are as follows:

- Ten, nine, eight and seven were classified in the high distribution of the rating;
- Six, five, four and three were classified in the average distribution of the rating; and
- Two and one were classified in the low distribution of the rating.

There were four out of the twenty characteristics that were the most commonly observed by teacher B who taught seven and eight year old children. Emphasis was placed on children gaining personal satisfaction from their learning and being original in their perceptions. Teacher B did this by extensive use of resources in her teaching method, which gave the class confidence to tackle the problems of understanding the structure of the cat. Through building this confidence the children were able to work independently and extend their communication of this knowledge. Teacher B focused on the process of learning which is reflected in the prioritising of the characteristics and not so much on achieving a highly commendable product in which more emphasis would be placed on detail and technique. This approach to learning by teacher B aligns to Clark and Zimmerman's (1992; 1998) view that not all children who are gifted and talented in the Visual Arts will necessarily demonstrate high levels of achievement in the resolution of their product.

The Pattern of Characteristics by Teacher C

The pattern of characteristics observed by teacher C and the researcher with eight children in the *can do it very well* column are shown below and marked with an asterisk.

Table 5.5 The Pattern of Characteristics and Profiles Given to Eight Children in the Can Do It Well Category by Teacher C and the Researcher

Child Characteristics	19	20	21	22	23	24	25	26
1. Originality			*	*	*			*
2. Realistic			*	*				*
3. Visual Memory			*					*
4. Observation		*	*					*
5. Technical Skill			*	*	*			*
6. Problem Solving					*			*
7. Colour		*	*	*	*			*
8. Imagination			*	*	*			*
9. Media				*				*
10. Design		*			*			*
11. Communication								*
12. Knowledge					*			
13. Independence		*	*	*	*			*
14. Self Criticism			*	*				*
15. Concentration		*	*	*	*			*
16. Self-Determination				*	*			*
17. Evaluation				*	*			*
18. Development		*	*	*				*
19. Personal Satisfaction			*	*	*			*
20. Resources				*	*			*

Teacher C followed the same approach as Teacher A and B and took in to account her knowledge about each child. Although teacher C selected eight children to administer the teacher observational profile she did not rate characteristics in the *can do very well* column to three of these children. These children were rated in the other criteria of *attempts the task* and can *do most of it*. Application of colour, unlike the other classes, was included in the drawing lesson and was rated according to the observation

displayed in the cat sample. All twenty characteristics were trialed to see if they applied to the drawing lesson on the cat.

Table 5.6 How Many Times Teacher C Used the Characteristics

No of times used	Characteristic
5	Concentration, Independence, Colour
4	Personal Satisfaction, Development, Imagination, Technical Skill, Originality
3	Resources, Evaluation, Self-Determination, Self Criticism, Design, Observation, Realistic
2	Media, Problem Solving, Visual Memory
1	Knowledge, Communication,

The twenty characteristics were used at least once and the characteristics shown in table 5.6 are as follows:

- Five and four were classified in the high distribution of the rating;
- Three and two were classified in the average distribution of the rating; and
- One was classified in the low distribution of the rating.

There were eight commonly observed characteristics identified by teacher C who taught nine to eleven year old children. The number in the high distribution was greater than the other teachers had identified. Concentration, independence and colour were in five of figure 5.6. Teacher C with some variations placed emphasis in the process of learning as shown by teacher B and was able to rate evidence of the usage of colour. The number classified in four of figure 5.6 brings a different perspective. Personal satisfaction in learning is important as well as activating originality and imagination in visual thinking. The development in both stages of learning and technical skill also was a focus and applied to the resolution of the product.

This teacher used a method of teaching whereby the teacher's sources were available for the students to use and motivation was given, but there was little guidance in the techniques of drawing. This differs in approach from the other teachers. Hence, the characteristics observed reflected this variation, between the teaching approach and the individual approach of the students who focused on what they knew about technique.

This combination of learning between what the teacher is teaching and the students relying on their own knowledge created the combination of characteristics observed.

This was different to teachers A and B who had given guidance on the technique of drawing. Teacher A placed prominence in drawing techniques whereas teacher B used this in conjunction with understanding the structure of the cat. This approach produced little variation in results between drawings for Teacher B as the children were not given as much space to reflect on their own resourcefulness and manifest this in their own results.

5.4 SUMMARY OF RESULTS

The tables showing the high distribution rating in figures 5.4, 5.5 and 5.6 reflects the priorities given to the characteristics and also the teaching styles of the three teachers.

Teacher A was selective in the number of characteristics she used with the younger children. She tended to select characteristics that focused on the completed product.

Teacher B increased the number of characteristics that she used for the middle age group of children and selected characteristics that tended to focus on the process of learning.

Teacher C selected the greatest number of characteristics for the senior age group and showed variation between the process and the product.

Independence was the only characteristic out of the twenty that was used by all of the teachers in the high distribution rating. The three characteristics out of the twenty that were used by two of the three teachers in the high distribution rating were *Resources, Personal Satisfaction* and *Originality.* Out of the four characteristics rated highly and constantly used, *Independence* and *Personal Satisfaction* are affective characteristics. The *Resource* characteristic relates to the motivation of teaching the Visual Arts and *Originality* is a visual thinking characteristic.

From this analysis the strength of the *Independence* and *Personal Satisfaction* characteristics from the teachers' findings in the pilot school aligns with the general literature on gifted and talented children (McAlpine & Reid, 1996). The advocacy for the inclusion of affective characteristics in the identification profile in the literature for gifted and talented children in the Visual Arts is also supported from these findings (Clark & Zimmerman, 1992).

The very nature of the Visual Arts is dependent on the availability of *Resources* as to whether an activity can be carried out. This is usually dependent on the school supplying the resources. A child may be invited to contribute to the resources of a Visual Art activity in a school setting if this is appropriate, but resources are the responsibility of the teacher and the school. The child does not usually have a controlling influence on the resources and in this instance each child could contribute if they wished to. The statement defines resources as the child being able to source equipment, pencils, paints and books. The source of the resources came from the teacher and the school, therefore, the statement is invalid and is not an applicable characteristic. How often a child uses a resource is not part of the definition and cannot infer the quality of a product. One could argue it may assist the quality of the process involved in producing the product along with the teachers learning style. As the resource characteristic was in the high distribution of the teachers' rating it would suggest that the teachers either did not read the statement carefully or they were bringing other interpretations into the definition.

The quality of the process and product in the Visual Arts would suggest dependency on the *Originality* characteristic. The originality characteristic is dependent on how unique or unusual the child is to take visual information and develop original ideas, concepts and processes to bring to fruition the unique character and quality of a product.

The formation of the teacher observational profile explained in chapter 4 was subjected to two modifications in phase two. This was necessary to establish stability and clarity in the definition of statements. The interpretation of statements was problematic which was consistent with the literature (Clark & Zimmerman, 1992). Most of the keywords

were identified and stabilised earlier in the developmental phase. There were four factors involved in the two modifications of the teacher observational profile. Firstly, the definitions needed to be succinct and align with the Arts in New Zealand curriculum statement (Ministry of Education, 2000). Secondly, the Visual Arts language needed to be understood by teachers in the primary sector. Thirdly, the definitions of the statements needed to align with the literature search. Fourthly, the language used to describe a characteristic needed to be sensitive to ethnic and cultural differences within the New Zealand context.

CHAPTER SIX

THE RESPONSE FROM THE PROFESSIONAL PANEL TO THE TEACHER OBSERVATION PROFILE FOR GIFTED AND TALENTED CHILDREN IN THE VISUAL ARTS

This chapter describes the results of the action research in phase three. Phase three reports on the questionnaire, based on the second modification of the teacher observational profile, which was distributed to the professional advisory panel. The questionnaire distributed to the professional panel is shown in appendix C. A scale was devised to measure the variation in attitude between the three groups of the professional panel shown in appendix M.

The first section of this chapter discusses the three groups of respondents from the professional advisory panel and the number of responses to the questionnaire. The second section reports on the professional advisory panel's response to the general aspects and the third section discusses the panel's response to the specific characteristics of the teacher observational profile. The fourth section provides an analysis of the characteristics. The fifth section reports on the additional comments provided by the professional advisory panel.

The purpose of using a professional advisory panel was to bring an element of interpretivism to the empirical study (Clark, 1997; Harker, 1998). This is consistent with the broad action research approach. The responses allow for inquiry and interpretation into the meanings of the characteristics developed in phases one and two of the Teacher Observation Profile for Gifted and Talented Children in Visual Arts. The respondents gave different perspectives and meanings providing reasons, intentions, opinions and motivations which were viewed on an equitable basis by the researcher.

6.1 THE RESPONDENTS

This section discusses the responses from the three groups of educators who replied to the questionnaire. The researcher used the inductive process used in qualitative research

to interpret the responses from the educators (Merriam, 1988). A summary of additional comments provided by the respondents to the questionnaire is also analysed.

Group 1 was the teacher educator group, to whom eighteen questionnaires were sent with eleven responses received; a sixty two percent return rate. Group 2 was the teacher practitioner group, to whom eighteen questionnaires were sent and fifteen responses returned; an eighty four percent return rate. Group 3 was the teacher trainee group, to whom twenty two questionnaires were distributed, twenty two responses were returned; a hundred percent return rate. A total of fifty eight questionnaires were given out to the three groups and forty eight questionnaires were returned; giving an overall return rate of eighty three percent.

To make a comparison between the findings of the three groups an analysis of the differences and similarities was undertaken.

6.2 GENERAL COMMENTS ON THE TEACHER OBSERVATIONAL PROFILE

This section presents the findings of the professional panel on the general aspects of the teacher observational profile.

1. The Categories

All the respondents were able to record their responses within the categories that were given. Respondents, who were parents as well as in the educational categories, ticked this box if it applied to them. This gave the opportunity for respondents to consider the contents of the questionnaire in relation to being a parent as well as an educator.

2. The Name of the Instrument

The majority of the respondents from the three groups were in agreement with the name of the instrument and felt that it clearly defined the purpose. One respondent from the teacher practitioner group commented that the word 'gifted' made the title too long and another respondent from the teacher educator group thought the word 'talented' should be removed. Out of the fifty eight respondents the two individuals who showed variation with the words 'gifted' and 'talented' recommended that only one of these words was necessary in the title.

3. Wording of the Criteria

Of the three groups, between four and five respondents in each group were dissatisfied with aspects of the wording of the criteria. Some respondents ticked the box agreeing with the wording of the criteria in principle, but suggested further modifications. Overall there was some confusion as to whether frequency of criteria should be applied or quality of criteria should be applied. Two respondents from the teacher educator group wanted to exchange 'exceptional' for 'always' therefore aligning with the frequency of criteria. Two of the trainee teacher group wanted to change 'usually' to 'exceptional' aligning with the quality of the criteria. The majority from the trainee teacher group considered that the difference in attainment between 'usually' and 'exceptional' was too great on the scale of normal distribution. They commented that 'usually' positioned an individual in the 'average' range of the occurrence of a characteristic. The gap between 'average' and 'exceptional' was too much of a leap from one level of attainment to another. The decision to use the quality of a characteristic rather than frequency was further supported by the three teachers in the pilot school who had also experienced difficulty with using frequency as their criteria.

As there had been no comments received on the use of the word 'exceptional' to describe this level of manifestation of a characteristic, the researcher remained with this word. In modification three of the teacher observational profile the word 'criteria' was changed to 'quality' and two of the three qualities were changed to rate the characteristics as average, above average and exceptional. The researcher used Clark and Zimmerman's (1984) model described in section 2.1 as the framework for this aspect of the research. The term 'sophisticated' was changed for 'exceptional' and the term 'naïve' was not included in this level of participation.

4. Number of Criteria

Three respondents from the teacher educator group did support having three criteria. The first respondent suggested four criteria and the second respondent wanted to collapse all of the criteria into one. The third respondent recommended five criteria. Two of the eight respondents from the teacher practitioner group supported the idea of having three criteria. One respondent in the teacher practitioner group commented that there were too many criteria. Two out of the fourteen respondents, who liked the concept of three criteria, commented on the comprehensiveness of the criteria. Two

respondents in the trainee teacher group did not tick any boxes and left a question mark in the comments column.

There was support for the three criteria in which further justification was given through the comments column. Only two respondents had favoured more than three criteria. The three criteria remained the same in the third modification of the teacher observational profile that also aligned to the teachers' findings in the pilot school.

5. The Scoring Process

One of the three groups of teachers showed variation in their response to the scoring system.

Half of the teacher educator group critically questioned whether the scoring system had a purpose in the teacher observational profile. Comments ranged from, "I'm not sure what the point is in having a scoring system", to asking questions such as "How will the scoring system be used?" other questions and comments were "What do participants do with the total?" "What does it actually mean?" "I am not convinced the scoring system is useful". A respondent who ticked the *like it* box, expressed the following view "the greater weight is required for higher levels - this does that". Although this respondent had applied a mathematical theory to the scoring process they had not considered the implications that may occur through the practical application of the instrument. The teachers in the pilot school found that there were discrepancies in the scoring system as explained in section 5.2. The mathematics did not necessarily correlate to the child who exhibited exceptional characteristics. This did not occur at the very high end of the distribution rating where a child had many characteristics in this category, but it did occur in the above average and average distribution rating where children exhibited a smaller number of exceptional characteristics. Two thirds of the teacher practitioner group did not understand the scoring system. One had reservations and did not want to comment until they had trialed it. The majority of this group supported the teacher educator group and the three teachers in the pilot school who responded with similar comments. The responses from the trainee teacher group advocated for the scoring system. Two respondents were confused by the system and another needed to use the system to give an informed opinion.

The majority of respondents expressed similar views, only the number of responses differed. The difference expressed by the trainee teachers may be through lack of classroom experience. The evidence produced by the teachers in the pilot school in applying the scoring system and the weight of confusion expressed by the teacher educator and teacher practitioner groups supported the removal of the scoring system in the third modification of the teacher observational profile.

6. Format

Although three respondents in the teacher educator group did not like the format they gave no suggestions on how modifications could be made to improve the formatting of the teacher observational profile. One of the respondents was unsure whether they approved or disapproved of the format. Positive comments were given such as "logical" and "spacing was visually pleasing" and statements were "brief but thorough". The response of the teacher practitioner group was identical to the teacher educator group in the number of respondents who did not like the formatting and the nature of the comments. Two respondents in the trainee teacher group did not like the format and gave no further comments.

Eight respondents from the three groups did not like the format and gave no suggestions for change. The researcher retained the format in the third modification of the teacher observational profile.

7. Sequence of Characteristics

The trainee teacher group showed some variation in their response to the sequence of characteristics from the other two groups. In the teacher educator group, four of the respondents did not like the sequence of the characteristics as they were presented in the second modification of the teacher observational profile. One of these respondents suggested grouping the characteristics into "general, technical and affective skills". Three respondents did not want them grouped in any particular order or grouping. Respondents who ticked the box indicating they agreed with the grouping asked questions such as "do they need to be in a particular sequence?" and made comments such as "seems okay" and " I am conscious of the need to separate characteristics to spread the differences". The majority supported the presented sequence with a small

number of respondents unsure whether to group them or not and if one did, what the categories would be.

Although the teacher practitioner group only had two respondents who opposed the sequence of characteristics, comments ranged from "could be grouped", to "no opinion" and "a bit confusing at times" and "I don't like realistic at the top". One respondent commented that if one or more persons were using the profile they would find it more efficient to sequence similar thought processes together rather than to spread them randomly. The respondent suggested the combinations of technical or process, work habits and interpretation as groupings of characteristics. The second respondent suggested the combinations of ethics, response, independence, self criticism, concentration and satisfaction as possible groupings of characteristics. These respondents questioned the groupings and provided further examples but the majority of the group supported the random nature of the characteristics.

The trainee teacher group had eight respondents who did not like the sequence of characteristics. Five of these respondents gave no additional comments. One of these respondents said the characteristics should be in a clear order but did not provide an example. Two in this group said they liked it but they would only apply a few characteristics per person. The messages from these respondents were confusing which may be through lack of practical experience with gifted and talented children in the Visual Arts. This group did not provide additional views in which to alter the tool from its presented sequence of characteristics.

Four respondents provided examples of groupings that could be used in the sequence of characteristics:

- Two respondents provided technical skills as a heading in which to group characteristics. This characteristic is explained in section 4.1. The literature and the researcher explain this characteristic as a distinctive entity in itself. It is not a broad category in which a number of characteristics can be grouped under to form the category of technical skills;
- Three respondents suggested affective skills as a group of characteristics and gave examples of work habits, independence, self criticism, response, concentration and personal satisfaction to be included under the heading. This confers with the

explanation given in section 2.1. As the researcher had informally structured the affective skills together, the respondents were supporting what had already occurred but may not have been obvious to them;

- Ethics as a heading would seem to be out of alignment and was considered as an anomaly;
- Identifying the realistic characteristic in the positioning of the sequence would suggest that either the respondent does not accept this as a characteristic or finds that it is out of alignment with the rest of the characteristics; and
- The heading of "general" as suggested by a respondent could be a method of grouping characteristics not specifically related to the Visual Arts.

When the researcher formulated the sequence of characteristics she structured them into two broad categories. The first group was characteristics that were relevant to the Visual Arts process itself and the second group included affective skills that identify with gifted and talented children in general (Ohio State Department of Education, 1992). The researcher did not, however, list the characteristics under the two headings but chose to keyword the characteristics as described in chapter 4. The researcher sequenced the keywords of the characteristics by placing the Visual Art characteristics first followed by the general affective and other characteristics. When sequencing the Visual Art characteristics the researcher positioned originality at the beginning of the sequence. The researcher agreed with the three teachers in the pilot school that the other Visual Art characteristics need to contribute in various combinations and degrees for originality in artwork to occur.

Specific Comments on Characteristics

This section is a separate part of the questionnaire, which discusses the comments given by the respondents on the characteristics of the teacher observational profile.

8. Keywording of Characteristic

Four respondents in the teacher educator group did not like the use of key words at the beginning of each characteristic but did not make any further suggestions. One respondent in the teacher practitioner group found difficulty in understanding some of the keywords. The rest of the respondents were unanimous in acceptance of this concept. Comments such as "it makes sense" and "excellent, useful, brief and concise"

and "helps to explain" indicated that key wording assisted in the efficient use of the teacher observational profile.

9. Comments on Keywording

In this section respondents were asked to comment on the keyword and the statement explaining each characteristic.

9.1 Originality

Four respondents from the teacher educator group found this characteristic difficult to understand. Two of these provided the following re-write of the characteristic: "Uses own ideas inventively, interprets the work of others differently" and that either "design" or "create" be substituted for "be" in the sentence. The other two respondents offered no further comments. Another respondent commented; "A clever definition as it covers both attitude and implies concrete evidence in subsequent work". Two respondents from the teacher practitioner group found this characteristic difficult to understand. One commented that they saw originality the same as the statement written for observation. The difference between the characteristics of originality and observation is explained in section 4.1. Two from the trainee teacher group found the statement difficult to understand and commented that it needed more explanation. Of the eight respondents who found this characteristic difficult to understand two suggested a re-write and two required more explanation. This suggests the need for careful observation of this characteristic when trialing it in schools.

No change to this characteristic was made for the third modification of the teacher observational profile.

9.2 Realistic

The majority of respondents liked this characteristic with only two from the teacher educator group and three from the teacher practitioner group who did not understand the statement. The trainee teacher group liked the characteristic with only one respondent commenting negatively "this characteristic is only valuable in observational drawings and where art involves drawing objects. It is not very useful in expressive art". Respondents from the teacher practitioner group also commented that this characteristic is dependent on observational drawing. Another response explained that this

characteristic shows only the "true-to-life" appearance of the subject matter and should be not be included as it is too specific. Another commented that this characteristic recognises spatial relationships and the effect of light and shadow on forms. Although agreement was substantial for the inclusion of this characteristic there were two significant views requiring investigation. With regards to observation, if this was the only aspect this characteristic could identify, then other modes of expression as explained in section 2.1 are not being addressed. Aspects of this characteristic are being covered within the composition characteristic. Two respondents commented that children in the younger age group may not exhibit this characteristic. The researcher is aware that not all of the characteristics may be observed in various children and not all of the characteristics will be present in all work samples.

This characteristic was deleted for the third modification of the teacher observational profile.

9.3 Visual Memory

Two of the respondents from the teacher educator group did not understand this characteristic with one suggesting that this characteristic related to the imagination and should not be included as a characteristic. The other respondent questioned how this could be identified over several work samples. The majority of this group liked the characteristic. Six respondents from the teacher practitioner group did not understand the characteristic and one respondent did not want it included as a characteristic. Although there were reservations about this characteristic, the lack of comments did not reveal the nature of the problem other than teachers may find this difficult to evaluate. The researcher has observed that teachers have not necessarily considered the significance of this mechanism in the process of producing artworks. From the trainee teacher group, four found it difficult to understand and commented that it would be hard to tell if a child does this or not. Two trainee teachers asked for it to be excluded. The researcher considered that this group might not be familiar with this term and its significance.

This characteristic is vital to children exhibiting accelerate qualities in the Visual Arts. Although the same concerns were highlighted from the respondents throughout the three

groups the researcher feels that the users of this teacher observational profile will become educated about the importance of this characteristic.

The keyword and statement of the characteristics were unchanged in the third modification of the teacher observational profile.

9.4 Observation

Three of the teacher educator group did not understand this characteristic. One respondent commented that this statement was untrue of this characteristic. Another respondent commented that the statement should begin with a verb and be used as the statement for 9.2 (Realistic). Another respondent also commented on this statement beginning with a verb. Three respondents from the teacher practitioner group did not understand the characteristic, commenting that it was hard to evaluate. Two respondents found this characteristic in conflict with the realistic characteristic. Another commented that the word 'unusual' is not indicating that an individual is able to produce detail or be able to see beyond the first impression of an item. Two respondents from the trainee teacher group provided comments. One found it difficult to understand and one was unsure whether it should be included or not.

In the third modification, the researcher changed the beginning of the statement to begin with a verb. The third modification of the teacher observational profile was modified to: *Is able to see the unusual, what others may overlook.*

9.5 Technical Skill

The majority of the three groups of teachers were in agreement with this characteristic and suggested minor changes to the wording to improve the definition of the statement. The comment was made by one respondent to exchange the word 'ability' for 'facility'.

The third modification of the teacher observational profile was modified to: *Shows a technical facility in a Visual Art medium.*

9.6 Problem Solving

One respondent in the teacher educator group ticked the exclude box and one found difficulty in understanding this statement and suggested that the problem solving ability

should relate specifically to the Visual Arts. Another commented that "presumably potential students are risk takers but their ideas do not necessarily need to be sensible". The teacher practitioner group provided a similar response. The respondent who did not understand the statement asked for some direction to be given to the type of problems to be solved, such as pictorial and compositional. The trainee teacher group liked the statement and made no further comment.

The third modification of the teacher observational profile was a modification to accommodate the responses from both groups: *Has innovative approaches to solving problems in Visual Arts.*

9.7 Composition

Two from the teacher educator group did not understand the statement and one ticked the exclude box. One comment suggested, "uses elements and principles of composition" and another suggested, " demonstrates understanding in". Three respondents from the teacher practitioner group did not understand the statement and made similar suggestions to the teacher educator group. The trainee teacher group liked the statement and made no further comment.

The teacher observational profile was modified to accommodate the responses from both groups: *Understands the arrangement and elements of picture making and design skills, i.e. shape, texture, space, movement etc.*

9.8 Colour

Two respondents from the teacher educator group and the one from the teacher practitioner group did not understand the statement and asked what was meant by the integration of colour. Everyone was in agreement with the characteristic from the trainee teacher group.

The teacher observational profile was modified to accommodate the responses from both groups and improve the definition and Keyword: **Colour Awareness**: *Is able to compose and achieve subtleties and contrasts when mixing colour.*

9.9 Imagination

Two respondents from the teacher educator group wanted to exclude this characteristic and two did not understand it. One of the respondents suggested "collapse the visual memory statement into this characteristic". The teacher practitioner group had one respondent who did not understand the characteristic and one who wanted to exclude it. Everyone from the trainee teacher group was in agreement with the characteristic.

It was decided to leave the keyword and statement in its present form for trialing in schools.

9.10 Media

Three respondents from the teacher educator group did not understand this characteristic and two wanted it excluded. There were several comments questioning the meaning of "receptive" and found it an "odd" word to use. One commented that in this context "receptive" sounded like the media was in control of the child. Another suggested beginning the description with a verb, "is receptive....". Three of the teacher practitioner group were concerned about the overlap with the technical skill characteristic. The trainee teacher group were in agreement with the characteristic.

The teacher observational profile was improved to accommodate the responses. The statement was modified to begin with a verb and 'receptive' was replaced by 'facility'. The keyword was changed to remove the implied connection with technical skill. The statement and keyword reads as follows: **Media Usage**: *Has facility with media, techniques and equipment.*

9.11 Response

Three respondents from the teacher educator group did not understand the statement and one wanted to exclude it. The following five responses were given from this group:

1. "It needs rewording: Is able to articulate and extend ideas in response to the work of others";
2. "Is able to use the ideas of others and extend them";
3. "Is this a cultural thing? Articulate implies verbal language. Do you need to have a response from a non-verbal language?";
4. "Articulate?"; and

5. "This depends on language competence".

Four respondents from the teacher practitioner group disagreed with this statement and made the following comments:

1. "Ideas of self as well as others";
2. "Who is others, do you mean peers, artists? This could be interpreted in many different ways";
3. "Alter the wording, should it be: Is able to articulate their own ideas, the ideas of others and extend on the concepts"; and
4. "It does not apply to children in years 1 and 2".

Three of the trainee teacher group found this characteristic difficult to understand. One made the comment "this depends on the level of exposure to art language and symbols". All groups showed concern with the connection of 'articulate' to verbal language.

The third modification of the teacher observational profile replaced "articulate" with "demonstrate": *Is able to demonstrate the ideas of others and extend them.*

9.12 Independence

One respondent from the teacher educator group and three from the teacher practitioner group wanted to exclude this characteristic. All of the respondents were in agreement with this characteristic in the teacher trainee group.

The grammar of the third modification of the teacher observational profile was changed to begin the statement with a verb: *Is able to work independently.*

9.13 Self criticism

One from the teacher educator group did not understand the statement and three wanted the statement excluded. One of these respondents suggested that this characteristic "should be incorporated into evaluation" and one made the comment "this reflects on work". One respondent from the teacher practitioner group did not understand the characteristic and one wanted it excluded. One asked the question "does it mean screwing the work up and throwing it away?" and one did not like the use of the word

"perfection". All of the respondents from the teacher trainee group were in agreement with this characteristic.

No change was made to this characteristic for the third modification of the teacher observational profile.

9.14 Concentration

One respondent from the teacher educator group wanted the characteristic excluded. Two respondents from this group wanted to take out the word "long" and one commented that it needed to begin with a verb. Three respondents from the teacher practitioner group wanted the characteristic excluded. One comment made from this group was that "this attribute has a wide variance depending on age". One respondent from the trainee teacher group found this characteristic difficult to understand and asked the question "is concentration necessary to make a talented artist?" Another commented; " remember that even great artists can spend a lot of time on one aspect of art".

The third modification of the teacher observational profile was modified to begin with a verb and 'long' was removed from the statement: *Is able to be involved for periods of time on visual art activities.*

9.15 Evaluation

Two respondents from the teacher educator group did not understand the statement. One asked the question "do you mean to talk about or make judgements which could be about their own or others work? This characteristic has a connection with self criticism". Another commented about beginning with a verb and another stated "evaluate: use 'appraise' instead of 'evaluate', you should not use the same word as the keyword in the statement". One respondent wanted to exclude the characteristic. All of the teacher practitioner group liked this characteristic and no further comments were given. One respondent in the trainee teacher group did not understand this characteristic and made the comment that "usually teachers and children do not evaluate after a session but if one did it would be a good idea".

The statement of this characteristic was changed in the third modification of the teacher observational profile to: *Is able to appraise their own and other's work.*

9.16 Personal Satisfaction

Two from the teacher educator group did not understand this characteristic and one wanted to exclude it. One respondent asked the question "how is this demonstrated? It could be part of 9.15 evaluation and 9.13 self criticism". A second commented, "begin with derived from...." and a third commented, "begin with shows enjoyment..." Two commented on the incomplete structure of the sentence. One respondent from the teacher practitioner group commented that this characteristic "runs close to self criticism". One respondent wanted this characteristic excluded and found it difficult to understand, however no further comments were given.

The statement of this characteristic was changed in the third modification of the teacher observational profile to complete the sentence structure: *Gains satisfaction from involvement in visual art activities.*

9.17 Development

Although one respondent from the teacher educator group did not understand this characteristic and two wanted to exclude it there were no suggestions to modify it. One respondent thought the statement was "excellent". The teacher practitioner group liked the statement and one made the comment "it is precise about the stages of learning". The trainee teacher group liked the characteristic but one respondent said they would "find it hard to comment after only one lesson".

This characteristic remained the same in the third modification of the teacher observational profile.

10. Would you use this tool?

The majority of the teacher educator group indicated that they probably would use this tool with three indicating they probably would not, but provided no reason. It may be that they are not in a position to do so. The teacher practitioner group gave a similar indication with only two respondents who probably would not use the teacher observational profile. Two of the trainee teacher group also indicated they would probably not use the teacher observational profile.

11. Is it necessary to have a comments column after each characteristic?

The teacher educator group offered two comments:

1. "I would recommend to students and teachers that I work with, to use the comment column";
2. "A comments section is useful but preferably not for every characteristic. A space is needed somewhere for comments".

The teacher practitioner group offered no comments but two of this group indicated that it is probably not necessary to have a comments column after each characteristic. Of the trainee teacher group one indicated that it probably was not necessary to have a comments column after each characteristic.

As the majority of the respondents to this question indicated it was necessary to have a comments column alongside each characteristic the format remained the same in the third modification of the teacher observational profile.

11.1 Is it necessary to have a comments column elsewhere?

The teacher educator group offered three comments:

1. "Comments over time could become benchmarks or described standards as indicators of performance";
2. "Confident teachers won't feel compelled to always fill them in if they don't want to add extra comments"; and
3. "Maybe a general overall comments column needs to be included at the end".

The teacher practitioner group thought it was probably not necessary to have an extra comments column elsewhere. Thirteen of the trainee teacher group thought it was probably not necessary to have an extra comments column elsewhere.

The extra comments column was removed from the bottom of the page for the third modification of the teacher observational profile. The researcher wanted to observe whether the teachers who were going to trial the teacher observational profile in the sample schools would write additional comments at the bottom of the page of characteristics. This would provide information as to whether an additional comments area was required or not.

6.3 ANALYSIS

The realistic characteristic was deleted since it was considered narrow in interpretation reducing the number of characteristics from seventeen to sixteen.

An additional word was added to clarify the meaning of two keywords. Colour was modified to colour awareness and media to media usage.

Ten statements were modified to clarify the meanings of definitions. Although this is still a significant number, the changes were minor in comparison to previous modifications. Changes were made to either begin a statement with a verb or exchange a word to improve the meaning of the statement.

6.4 ADDITIONAL COMMENTS

In this section a number of additional comments are reported on from the three groups of teachers from the professional panel. The comment is written first followed by the researcher's response. Six of the teacher educator group provided additional comments at the conclusion of the questionnaire.

Comment one is a summary that has been addressed in the third modification of the teacher observational profile according to the respondents who have given specific information.

> "Some of the wording (grammatical) in the sentences explaining the characteristic is ambiguous and confusing. Some of the characteristics could be collapsed together. It may be useful to have fewer criteria than the draft suggests".

Comment two recognises the value of the teacher observational profile and how it can inform teachers about children who are gifted and talented in the Visual Arts.

> "Comments only semantic – an important document".

This attitude in comment three is discussed in section 2.1.

> "Thanks for the opportunity to respond. I don't agree with the whole concept of 'gifted' as it is such a difficult area and can exclude many children. All children are significant and have individual strengths and singling some out is very dependent on viewpoint, parent or school perceptions and various agendas".

Comment four considers the teacher observational profile an important process when gathering information and is discussed in section 2.3.

> "Using this checklist format enables a wealth of information to be gathered in a short time frame. Comments clarify, point to specific skills and identify where a child's strengths lie".

Comment five is confusing identification with assessment. The respondent has 'read' the teacher observational profile as a means to mark an artwork rather than to identify the level of characteristics that a child may possess in which to provide a differentiated programme of work in the Visual Arts. This is discussed in section 2.2.

> "It appears to be user friendly and covers it all. Good assessment process".

Comment six is explained in section 2.1.

> "Not all of these characteristics would be measurable with young children due to social and physical skill development. So are your scoring processes different according to age band or will your instructions indicate this? Your title does not imply a focus an a specific age group, should it?"

Six of the teacher practitioner group provided additional comments at the end of the questionnaire.

"Very good overall – are you giving them specific art activities to use or just guidelines? Is the profile used against one piece of work? Would be more accurate against several pieces of art work".

"All the angles are covered – well balanced. Pertinent document, relatively straightforward. It would take a competent art teacher to use this properly – therefore their initiative "feel" for students' art has validity and needs a format".

This respondent thanked the researcher for using him and included an evaluation and criteria of definitions that he uses with intermediate aged children in the Visual Arts. These comments supported the principles of the second modification of the teacher observational profile and are explained in section 5.2.

"I have observed that some children are sometimes gifted and talented in drawing but not in other media or 3 dimensional art or vice versa. Can we say they are gifted and talented in the Visual Arts if they can draw and not gifted and talented in the Visual Arts because they cannot...? I don't think so. A tool needs to align with a context or media or a programme being offered for giftedness". This comment was supporting the use of an instrument but questioned which aspect of the Visual Arts identified with a child being gifted and talented. Children are not necessarily gifted in all areas of the Visual Arts as described in section 2.1.

"What about a criteria that recognises students who extend thinking through use of media or interpretation as they work through their ideas?" This comment suggests the respondent did not identify with characteristics that initiated the development of ideas. How ideas are used is a component in all characteristics, especially in originality, imagination, response, problem solving and development. In this teacher observational profile, ideas had not been identified as a specific characteristic with a keyword and its own defined statement. The researcher has observed this aspect of the Visual Arts is available in assessment models used in New Zealand schools.

"Very thorough, but easy to use and refer back to if students are referred to another teacher. Some aspects could be marked differently if teachers don't have a great deal of understanding". This is explained in section 2.3.

A respondent from the teacher practitioner group asked the following questions:

- "How frequent?
- Based on 1 piece of work or several pieces of work?
- Is it possible to produce a guide of visual examples?
- Who then looks responsibly for the monitoring and extension of the gifted students in a non-specialist environment?
- There is also a workload issue here?

- Who will produce the enriching experiences?"

This comment outlines some of the issues and problems asked in the first research question in 2.6. These are discussed in section 3.2.

Four of the trainee teacher group provided additional comments at the end of the questionnaire.

"As my knowledge of children is very limited I am unable to give an in-depth response. But when I am teaching I would use a format like this to help understand the development of the children's art. This would prove worthwhile". This statement is perceptive to the limitations of the respondent but recognises that a structured device would aid understanding of children's art making explained in section 2.3.

"I would not use this tool until the children have completed a wide variety of artworks. It would give the teacher a good understanding of where the children are at in Visual Art". These concerns are discussed in section 3.3.

"I think the keywords and sentence are excellent. I think that also you could choose a few keywords per lesson to evaluate".

"I would rather use this 'tool' as an assessment sheet where it is not identifying gifted children but evaluating all children (in doing this gifted children would be identified)." Both of these comments are confusing 'assessment' with 'identification'. The researcher is aware that trainee teachers have training in assessment procedures but have limited experience in identification procedures. These comments are explained in section 2.3.

Sixteen additional comments were added to the questionnaires to question and comment on the broader issues of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. One respondent opposed the concept whereas the other respondents supported the concept. Two respondents confused identification with assessment in the usage of the teacher observational profile.

6.5 SUMMARY OF FINDINGS

The three groups of respondents that formed the professional advisory panel gave different perspectives and meanings, providing reasons, intentions, opinions and motivations. The data provided was viewed on an equal basis by the researcher. The respondents provided specific feedback asked for by the researcher as well as inquiry into the broader issues. The teacher educator group provided critical enquiry into the questions they were being asked as well as raising issues related to the concept of gifted and talented children in the Visual Arts. Although many of this group would not use the teacher observational profile in their current roles it was not surprising that they were astute in their perceptions. The teacher educator group were able to support their responses from their knowledge and study from areas of research; whereas, the teacher practitioner group provided practical knowledge from their experience of teaching and learning in the classroom. Many of the teacher practitioner group asked questions relating to the implementation of the tool. This group of practitioners did not provide the deeper understanding of the causal affects that came from the teacher educator group. The trainee teacher group provided input from the beginner teacher perspective. This group of teachers had knowledge of the Visual Arts curriculum, but not as comprehensively as some of the teacher practitioner group. Their limited knowledge and experience in teaching situations impeded questions at this stage. They were supportive and were confident to use the tool.

Many of the additional comments and questions raised by the professional advisory group were addressed in the literature reviewed in chapter two. The human and social interaction of the respondents from the professional advisory panel provided the researcher with further inquiry and interpretation into the meanings of the statements identified from the literature in phase one and the observation methods in the pilot school in phase two. The interpretation of this data was applied to the third modification of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts.

CHAPTER SEVEN

TRIALING THE TEACHER OBSERVATIONAL PROFILE FOR GIFTED AND TALENTED CHILDREN IN THE VISUAL ARTS IN SCHOOLS

This chapter reports on phases four and five. Phase four reviewed the third modification of the Teacher Observational Profile for Gifted and Talented Children in the Visual Arts by trialing it in schools and is shown in appendix N. Phase five reports on the data from the trialing phase. A systematic process of recording and measuring of the data was devised, which is shown in appendix O. This data provided the means to identify and report on three groups of children and is described in the first section of the chapter.

The first group of children identified by the data were sixteen participants that scored in the high distribution range. Each of these children explained in section 7.2 are discussed in relation to their characteristics with photographs of their work samples. The second group of children explained in section 7.3 are the twelve highest participants in the exceptional area of the Visual Art learning characteristics. The third group of participants explained in section 7.4 are the thirteen highest participants in the exceptional area of the general learning characteristics. The three groups of children were selected to provide different kinds of information and are explained in section 7.5.

The different kinds of information revealed from the three groups of children required further definitions to clarify two groups of characteristics, which emerged from the data shown in appendix O. These were the Visual Art learning characteristics and the general learning characteristics. The Visual Art learning characteristics were defined as being integral to the process itself and are listed from 1 to 10 in the third modification of the teacher observational profile. The general learning characteristics assisted the Visual Art learning characteristics but may not be specific to the Visual Arts. These were listed from 11 to 16 in the third modification of the teacher observational profile. Both groupings of characteristics were not given explicit headings. The researcher decided to remain discrete, giving teachers the opportunity to make up their own minds as to what characteristics may be necessary without obviously specifying the order they may be in.

The main purpose of reporting on the third modification was to find out whether the teacher observational profile, which had been developed through research methods, applied to the work samples produced by various age and socio economic groups of children who may be gifted and talented in the Visual Arts. Within the concept there were two variables, the first variable was the characteristics listed on the teacher observational profile, and the second variable was the level which a child may achieve within a characteristic in an artwork. To measure the two variables it was important to systematise and record the observations. The units of measurement of the variables were recorded to communicate the observations in a table of contents.

7.1 ANALYSIS OF THE TABLE OF CONTENTS

The table of contents in appendix O listed all children for whom a Teacher Observation Profile for Gifted and Talented Children in the Visual Arts had been completed, in the trial schools. Each child was assigned a number as shown in column one. The Visual Art learning characteristics were recorded in column two which included the above average and exceptional categories. The general learning characteristics were recorded in column three which also included the above average and exceptional categories. The score for the above average and exceptional categories in the Visual Art learning and general learning characteristics was recorded in column four. The scoring system was devised to give each child one point if they were given a tick in the above average box and two points if they were given a tick in the exceptional box. The total score for each child provided a ranking system in which to identify the highest group of children who were identified as gifted and talented in the Visual Arts. The age of the child was recorded in column five to find out if age is a significant factor in the identification process. The numbering system began at child 27 for the trialing sample as children 1-26 were in the pilot sample. An asterisk denoted a child who had been highly ranked within the table of contents. The table of contents provided information about the three schools that participated in the trial.

Analysis of the table of contents revealed information about the children who participated in the trial from schools B, C and D.

School B revealed the following information:

1. Of the hundred and sixty children who participated in the trial of the teacher observational profile, thirty were identified in the above average or exceptional categories. Nineteen percent of these children scored in the high distribution range.
2. Four of these children scored between 23 and 30.
   - Child 30 had a total score of 23;
   - Child 55 had a total score of 25;
   - Child 53 had a total score of 28; and
   - Child 54 had a total score of 30.
3. These children were in two different classes.
   - Child 30 was in class two; and
   - Children 53, 54, and 55 were in class seven.

School C revealed the following information:

1. Of the hundred and twenty-seven children who participated in the trial of the teacher observational profile, twenty were identified in the above average or exceptional categories. Sixteen percent of these children scored in the high distribution range.
2. Three of these children scored between 22 and 26.
   - Children 66 and 62 both had a total score of 22; and
   - Child 68 had a total score of 26;
3. These children were in two different classes.
   - Child 62 was in class two; and
   - Children 66 and 68 were in class three.

School D revealed the following information:

1. Of the ninety-seven children who participated in the trial of the teacher observational profile, thirty-one identified in the above average or exceptional categories. Thirty-two percent of these children scored in the high distribution range.
2. Nine of these children scored between 22 and 28.
   - Child 77 had a total score of 22;
   - Children 82 and 97 had a total score of 23;

- Child 84 had a total score of 24;
- Child 95 had a total score of 27; and
- Children 83, 86, 94 and 98 had a total score of 28.

3. These children were in two different classes.
   - Child 77 and 82 were in class one; and
   - Children 83, 86, 94, 98, 95, 84 and 97 were in class three.

Each school in the trial identified children in two different classes. With the exception of school D a similar percentage of children were identified in two of the three schools. School D identified nine of the sixteen children, which was a significant proportion in the high distribution range.

Irrespective of where a child rated in the categories of distribution in the table of contents there were some characteristics that were not always awarded to children. These were colour awareness, imagination and originality.

1. Colour Awareness
   - Child 30 was the only child of this group who used colour in her work sample. This was the only work sample where this characteristic could be observed by the researcher and the teacher.
   - Children 53, 54, 55 and 62 had this characteristic ticked by their teacher without any visual evidence of it in their work samples. These teachers provided information on this characteristic based on previous work samples not known to the researcher. The researcher had no way of knowing if the information given was reliable.
   - Children 83, 94, 98, 95, 68, 86, 84, 82, 97, 66 and 77 did not have this characteristic ticked by the teacher. These teachers did not provide information unless they had work samples upon which to base their findings.

2. Imagination

   All drawing lessons for this research used observational methods as the basis for making Visual Art works. Teachers did not tick this characteristic for children 83, 94, 98, 86, 84 and 97; thus, six children were not observed to use their imaginations when producing their drawings. They relied on the use of their eyes

and senses to provide accurate information on the 'true-to-life' appearance of the item they were drawing. The teachers of the other nine children whom this characteristic applied either provided knowledge on this characteristic from previous information or built this aspect into how the child interpreted the information from the subject matter.

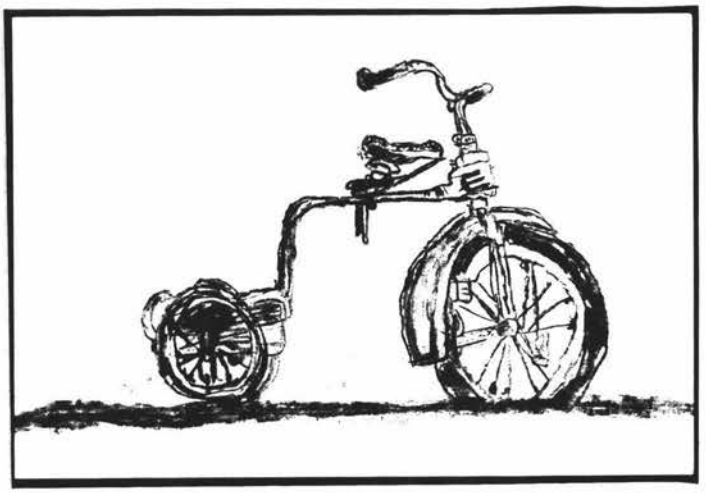
3. Originality

Originality was not ticked for child 84. Technical Skill and Development was not ticked for child 82 and Media Usage was not ticked for child 30 for reasons explained in section 7.2. Teachers need to get to know their children before they can make informed judgements, as explained in the timing of identification in section 3.2.

Teachers who did not award these characteristics to children in the teacher observational profile were able to justify their reasons.

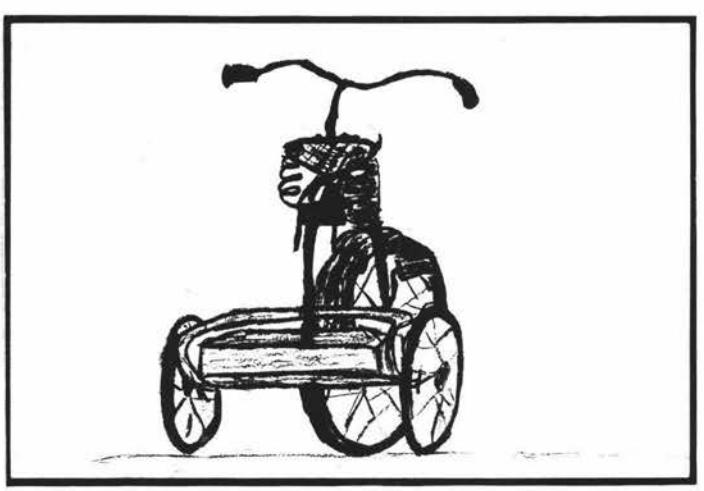
7.2 ANALYSIS OF THE HIGHLY RANKED CHILDREN

This section analyses the findings of the highly ranked children who were identified by an asterisk in the table of contents shown in Appendix O. Ten percent of the children scored between 22 and 30 in the Visual Art learning and general learning characteristics in the above average and exceptional categories. The information identifies the above average characteristics but not the exceptional characteristics; the reason being that the exceptional characteristics are analysed and reported on in the following two groups of children in sections 7.3 and 7.4. Sixteen children were identified with a photograph of their work and the information from the teacher observational profile.



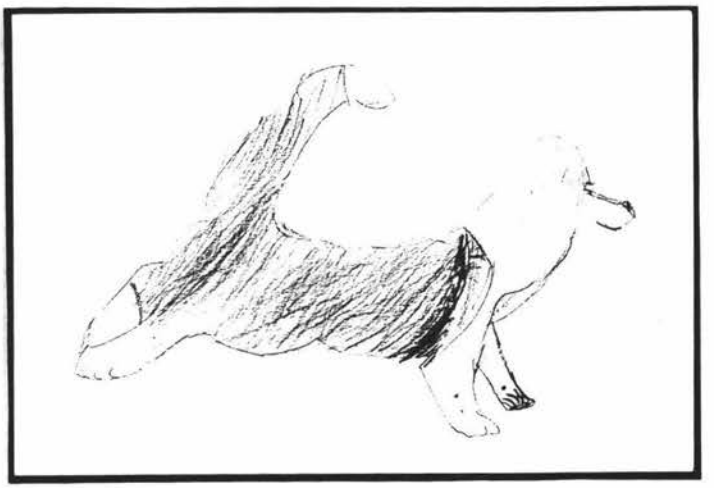
1. **Child 54**: Scored 30; Aged 13

All characteristics were ticked on the teacher observational profile. Two characteristics were above average, they were colour awareness and technical skill. Colour was not applied in this work sample therefore the teacher ticked this characteristic according to her knowledge of earlier work. Fourteen of the characteristics were identified as exceptional. The teacher provided inspirational subject matter for the child to have produced such a comprehensive drawing describing the narrative of the tricycle.



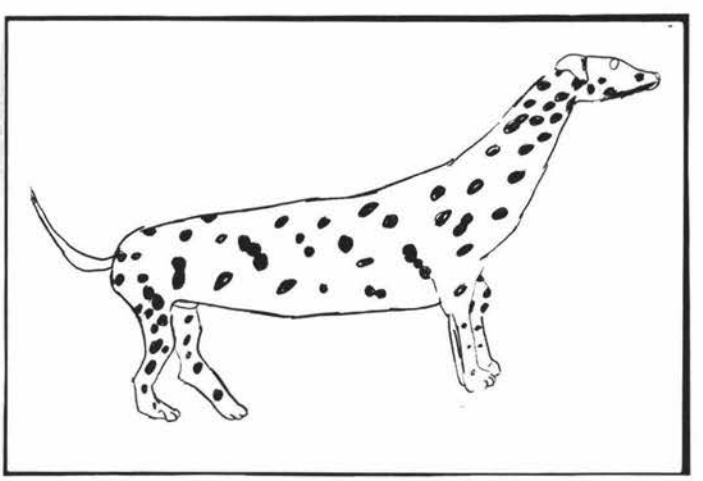
2. **Child 53**: Scored 28; Aged 13

All characteristics were ticked on the teacher observational profile. Four characteristics were above average, they were originality, colour awareness, problem solving and development. Colour was not applied in this work sample therefore the teacher ticked this characteristic according to her knowledge of earlier work. Twelve of the characteristics were identified as exceptional. The teacher encouraged children to draw from different viewpoints of the tricycle.



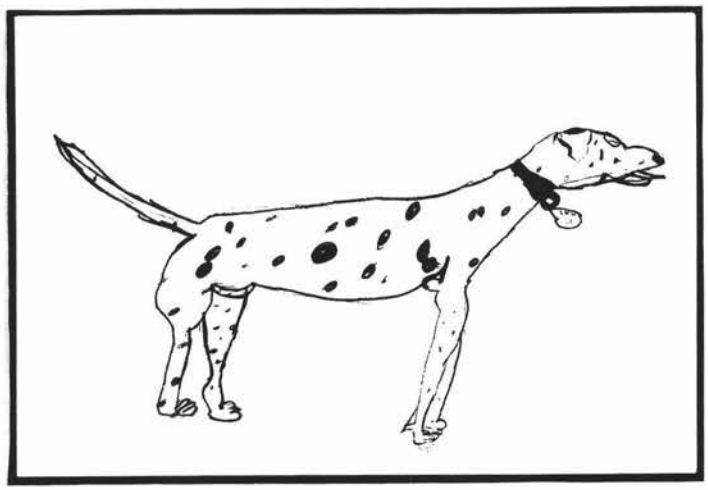
3. **Child 83**: Scored 28; Aged 7

Two characteristics were not ticked on the teacher observational profile. They were imagination and colour awareness. Both these characteristics did not apply to this lesson. Fourteen of the characteristics were identified as exceptional. The teacher wrote perceptive comments providing reasons for awarding three of the characteristics. Visual awareness: "sees small detail". Composition: "shows movement". Self criticism: "meticulous".



4. **Child 94**: Scored 28; aged 8

Two characteristics were not ticked on the teacher observational profile: imagination and colour awareness. Both these characteristics did not apply to this lesson. Fourteen of the characteristics were identified as exceptional. The teacher wrote perceptive comments providing reasons for awarding three of the characteristics. Visual awareness: "added detail, paws etc.". Composition: "good understanding of shape". Self criticism: "always".



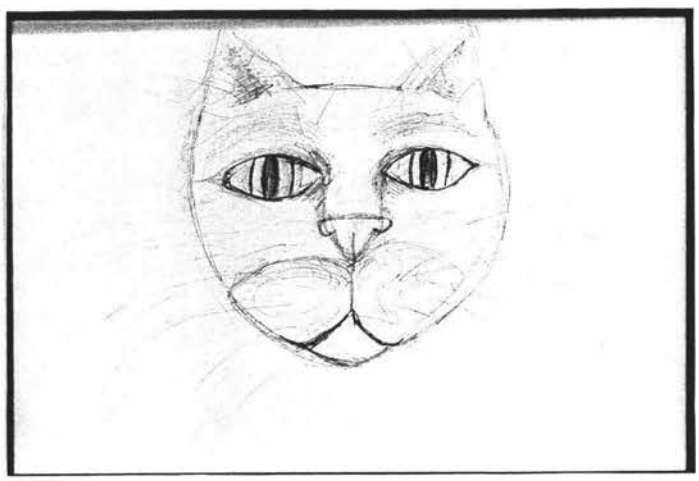
5. **Child 98**: Scored 28; aged 8

Two characteristics were not ticked on the teacher observational profile. They were imagination and colour awareness. Both these characteristics did not apply to this lesson. Fourteen of the characteristics were identified as exceptional. The teacher wrote beside the composition characteristic "good detail different sized spots and spots positioned well on the body". The child has also visualised the breed, stance and form of the dog in their drawing.

6. **Child 95:** Scored 27; aged 8

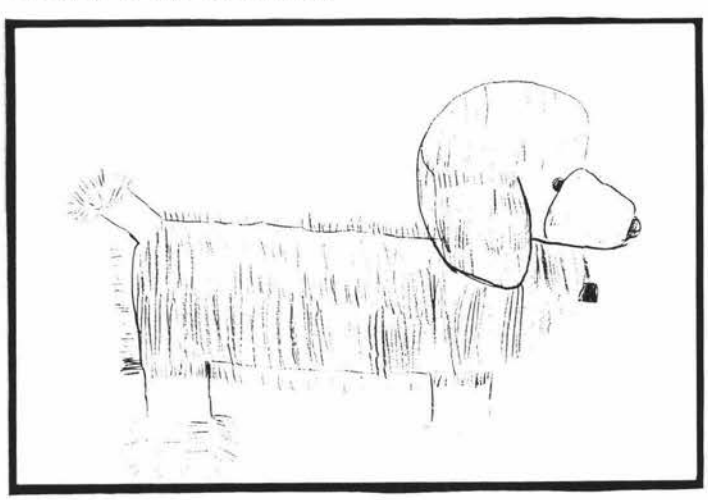
Two characteristics were not ticked on the teacher observational profile: imagination and colour awareness, neither of which were applicable in this lesson. With the exception of the evaluation characteristic that was above average, the other

characteristics were identified as exceptional. The teacher wrote comments beside two of the characteristics. Composition: "good use of space, accurate proportion" and self-criticism "doesn't like to stop until finished". She provided a reason for awarding these characteristics.



7. **Child 68:** Score 26; aged 11

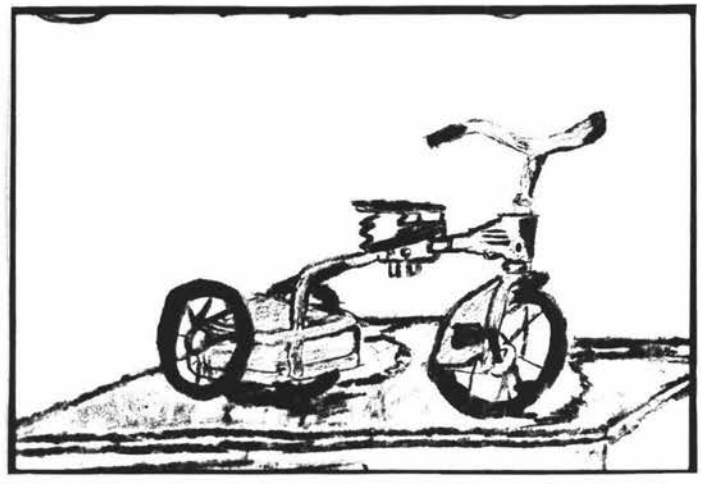
The colour awareness characteristic was not ticked on the teacher observational profile. This characteristic did not apply to this lesson. Four characteristics were above average: visual awareness, imagination, composition and problem solving. Eleven of the characteristics were identified as exceptional. The teacher wrote comments beside the evaluation characteristic "very thoughtful when preparing art work" and "used pencil in a variety of ways" beside the technical skill characteristic. She provided a reason for awarding these characteristics. The child has worked hard to describe the shape and features of the cat's face.



8. **Child 86:** Scored 26; aged 8

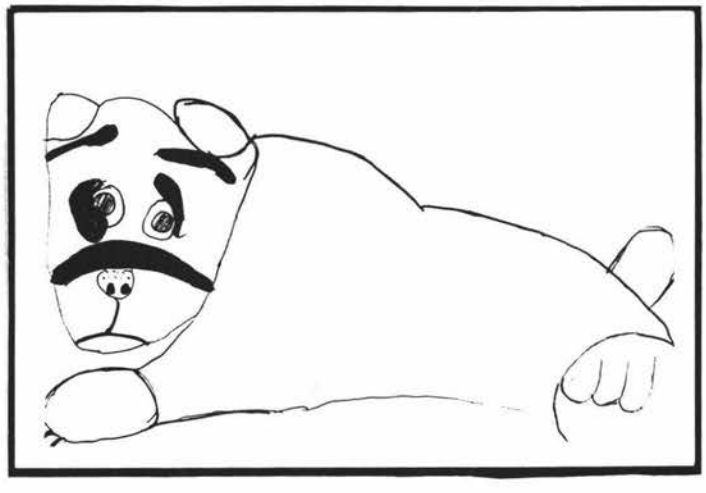
Two characteristics, imagination and colour awareness, were not ticked on the teacher observational profile. Both these characteristics did not apply to this lesson. Two

characteristics that were above average were originality and problem solving. Twelve characteristics were identified as exceptional. The teacher wrote "inventive, has drawn in fur to show the type of dog" beside the response characteristic providing a reason for awarding this characteristic.



9. **Child 55:** Scored 25; aged 13

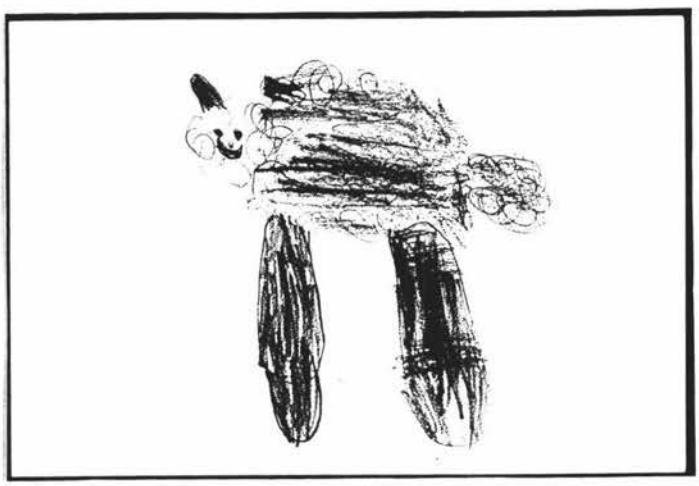
All characteristics were ticked on the teacher observational profile. Seven characteristics were above average: visual awareness, evaluation, composition, technical skill, media usage, self criticism and personal satisfaction. Colour was not applied in this work sample therefore the teacher ticked this characteristic according to her knowledge of earlier work. Nine of the characteristics were identified as exceptional.



10. **Child 84:** Scored 24; aged 7

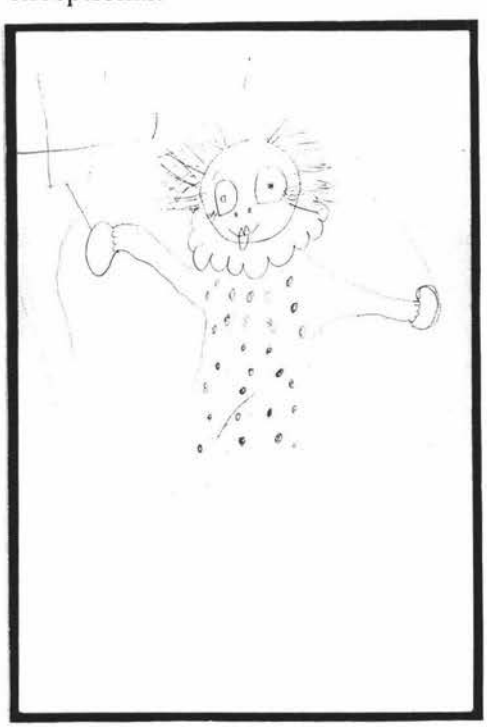
Three characteristics were not ticked on the teacher observational profile. They were originality, imagination and colour awareness, as they did not apply to this lesson. Two characteristics were above average. They were response and development. The teacher wrote beside the development characteristic "recent development". Eleven of the characteristics were identified as exceptional. Beside the technical skill characteristic she

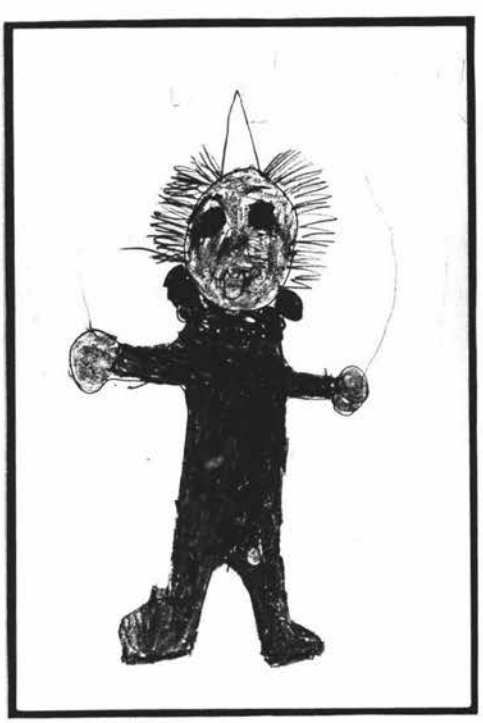
wrote "good use of pencil". Thus provided a reason for awarding these characteristics. The child has shown particular interest in how they have positioned the markings on the dog's head.



11. **Child 82:** Scored 23; aged 5

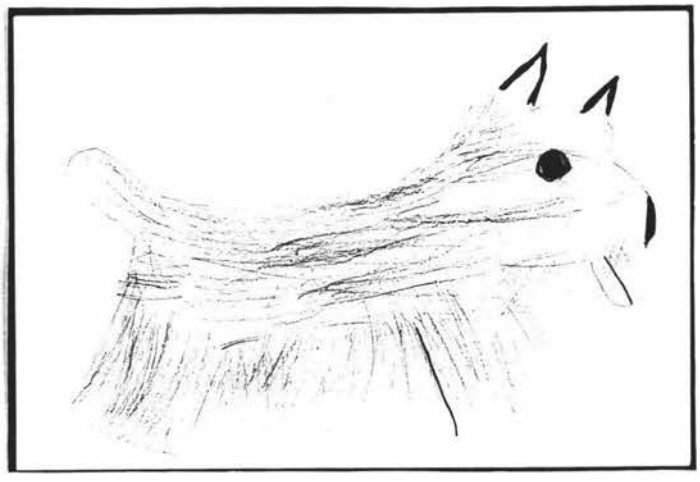
Three characteristics were not ticked on the teacher observational profile. These were colour awareness and technical skill. The teacher wrote against these two characteristics "stage of development". The teacher also wrote against the development characteristic "time at school" explaining why she was unable to provide information on these characteristics for this child. Three characteristics were above average they were visual memory, visual awareness and media usage. Ten of the characteristics were identified as exceptional.





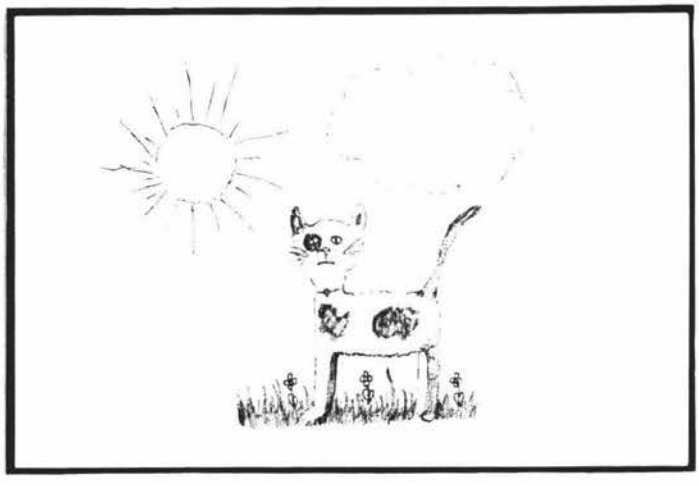
12. **Child 30:** Scored 23; aged 6

Two characteristics were not ticked on the teacher observational profile: media usage and development. Five characteristics were above average. These were visual awareness, colour awareness, imagination, response and evaluation. Nine of the characteristics were identified as exceptional. Beside the composition characteristic the teacher wrote "able to enlarge from a story to life size, in sections". This teacher is aware of the capabilities of the children in her class and provides an environment in which children are able to explore and extend their dimensions within the Visual Arts.



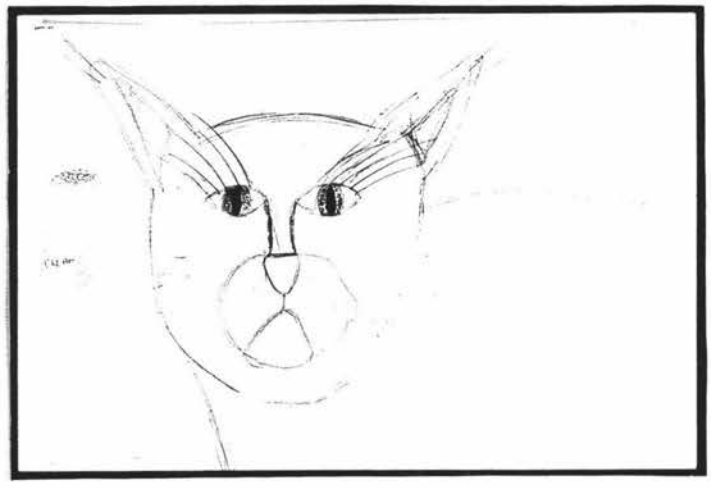
13. **Child 97:** Scored 23; aged 8

Two characteristics were not ticked on the teacher observational profile. They were colour awareness and imagination as they did not apply to this lesson. Five characteristics were above average. They were visual awareness, composition, technical skill, media usage and development. Nine of the characteristics were identified as exceptional. The teacher wrote beside the self criticism characteristic "usually meticulous" and provided an additional comment "has got potential but not realised in this work". This teacher is perceptive to the capabilities of the child, an explanation could be with the subject matter as explained in the ways in which the exceptional excel in section 2.2.



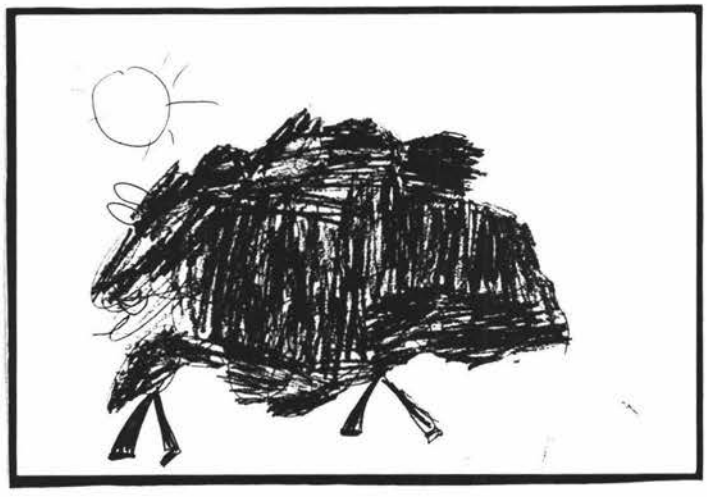
14. **Child 62:** Scored 22; aged 10

All characteristics were ticked on the teacher observational profile. Ten characteristics were above average. They were visual awareness, response, evaluation, composition, colour awareness, technical skill, media usage, problem solving, development and self criticism. Colour was not applied in this work sample, therefore, the teacher ticked this characteristic according to his knowledge of earlier work. The teacher also wrote beside the colour awareness characteristic "very bright use of colours". Six of the characteristics were identified as exceptional. Beside the originality characteristic the teacher wrote "also enjoys other art activities, music, dance and P.E.", and beside the visual memory characteristic he wrote "very neat presentation in other works". He provided a reason for awarding these characteristics.



15. **Child 66:** Scored 22; aged 11

The characteristic that was not ticked on the teacher observational profile was colour awareness, as it did not apply to this lesson. Eight characteristics were above average. They were originality, visual awareness, imagination, composition, technical skill, media usage, problem solving and development. Seven of the characteristics were identified as exceptional. Beside the evaluation characteristic the teacher wrote, "self reflects and makes changes independently". The researcher noted that this child relied on the teacher for instruction throughout the lesson for the structure of the cat and became more involved in the utensils providing food for the cat. This diversion by the child suggested difficulty with the subject matter as explained in section 2.2. The researcher did not accept the teacher's view on visual memory for this child. Clearly the child was experiencing difficulty in understanding the structure, form, shape and proportions of the cat and did not hold sufficient information on these aspects within the visual memory.



16. **Child 77:** Scored 22; aged 5

Five characteristics were not ticked on the teacher observational profile. Beside the response characteristic the teacher commented "acts as a model for others", colour awareness, "does not apply to this drawing", technical skill, "stage of development", media usage, "she shaded lightly first then darkened it" and development, "time at school". The imagination and evaluation characteristics were rated above average. Nine of the characteristics were identified as exceptional. The researcher observed knowledge of shape, structure, texture of wool and a sense of movement in the drawing of the sheep. Other drawings displaying similar qualities by this child were observed by the researcher. Given that five characteristics out of sixteen were not awarded to this child, she was clearly in the high distribution range.

Summary

This section explains the characteristics awarded to children in the above average category.

Thirteen characteristics from the sixteen were referred to in the above average category for this group of children and are shown in Table 7.1.

Table 7.1 A Summary of Results from the Highly Ranked Children Who Were Awarded Characteristics in the Above Average Category

Visual Art Learning Characteristics	Average	Above Average	Exceptional
1 Originality	0	2	14
2 Visual Memory	0	1	15
3 Visual Awareness	0	7	9
4 Imagination	0	4	12
5 Response	0	3	13
6 Evaluation	0	5	11
7 Composition	0	5	11
8 Colour Awareness	0	3	13
9 Technical Skill	0	5	11
10 Media Usage	0	4	12
General Learning Characteristics			
11 Problem Solving	0	5	11
12 Development	0	5	11
13 Self Criticism	0	1	15
14 Independence	0	0	16
15 Concentration	0	0	16
16 Personal Satisfaction	0	0	16

No characteristics were awarded in the average category for this group of children. All sixteen children have the greatest number of characteristics in the exceptional category.

- Visual Awareness was referred to seven times in the above average category. This was the characteristic with the least amount of ticks in the exceptional category. This suggests that this could be the most difficult Visual Art learning characteristic to achieve at this level.
- Composition, technical skill and evaluation, three of the visual learning characteristics, were referred to five times. Problem solving and development, two of the general learning characteristics were also referred to five times. This group of five characteristics also infer difficulty in achieving to an exceptional level.
- Imagination and media usage are referred to four times suggesting some difficulty in achieving to an exceptional level.
- Colour awareness and response are referred to three times. Originality is referred to twice. Self criticism and visual memory are referred to once. In this group of characteristics self criticism is the only general learning characteristic referred to.

The ten Visual Art learning characteristics included in the teacher observational profile are referred to in the above average group.

The conclusion can be made for this group of children identified in the high distribution rating that the general learning characteristics are easier to attain than the Visual Art learning characteristics. A reason for this could be that children practice general learning characteristics constantly, regardless of what curriculum they are learning about and are continually applying them throughout the day. In contrast, the Visual Art learning characteristics may be practiced infrequently during the year depending on the curriculum priorities of the school. School D, which had the largest number of participants, regularly included Visual Art learning in their weekly programmes. The data from this school identified seven children that were more able in the Visual Arts than their peers. It was also the school with the highest socio-economic rating of the three schools participating in the trial. The parents of these children may provide additional learning support in the Visual Arts, which may not apply to the same extent in the other schools.

Children 54, 83, 94, and 98 had fourteen out of the sixteen characteristics of exceptional quality. Children 82, 84, 86, 68, 95 and 53 had between ten and fourteen characteristics of exceptional quality. Children who are operating at the high distribution rating have the greatest number of characteristics operating at this level. This implies that all of the characteristics included in the teacher observational profile can operate at the exceptional level and can be applied to the work samples. No teachers offered further characteristics for the teacher observational profile, relying solely upon the characteristics provided.

Some teachers showed interest in the children who were identified by the teacher observational profile in the high distribution rating by providing reasons for presentation a characteristic. These reasons were based on their observations found in the work samples.

By analysing this group of children the researcher was able to determine the differences in children who had above average and exceptional qualities in the characteristics. The Visual Art learning characteristics were identified as being more difficult to achieve than the general learning characteristics. Both are required for children to operate at the high distribution range in the Visual Arts. Using this profile, children can operate in the

above average and exceptional categories to be identified as gifted and talented in the Visual Arts.

7.3 ANALYSIS OF CHILDREN IDENTIFIED WITH VISUAL ART LEARNING CHARACTERISTICS TO AN EXCEPTIONAL LEVEL

In the second group of children the researcher identified twelve children from the table of contents who were awarded a significant number of exceptional Visual Art learning characteristics on their Teacher Observational Profile for Gifted and Talented Children in the Visual Arts.

The following table sets out the patterns of characteristics as they apply to the twelve children. Each child who was awarded with an exceptional characteristic was marked with an asterisk.

Table 7.2 The Pattern of Visual Art Learning Characteristics

Child	Originality	Visual Memory	Visual Awareness	Response	Evaluation	Composition	Technical Skill	Media Usage
83 7yrs	*	*	*	*	*	*	*	*
94 8yrs	*	*	*	*	*	*	*	*
98 8yrs	*	*	*	*	*	*	*	*
95 8yrs	*	*	*	*		*	*	*
86 8yrs		*	*	*	*	*	*	*
84 7yrs		*	*		*	*	*	*
68 7yrs	*	*	*	*	*		*	*
90 8yrs		*	*		*	*	*	*
55 13yrs		*		*				
82 5yrs	*			*	*	*		
101 10yrs	*	*	*				*	
78 5yrs	*		*	*	*			

The pattern of Visual Art learning characteristics revealed three combinations:

1. Visual memory and visual awareness, which were evident in ten children;
2. Technical skill, response and evaluation, which were evident in nine children; and
3. Originality, composition and media usage, which were evident in eight children.

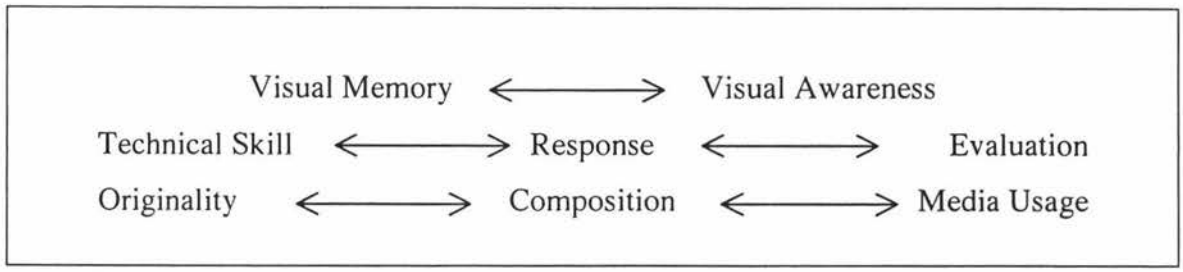


Figure 7.1 Three combinations of Visual Art learning characteristics

In figure 7.1 emphasis was placed on the visual memory and visual awareness characteristics, which was followed by the technical skill, response and evaluation characteristics. This was followed by originality, composition and media usage. One number separated each of these combinations. This means for this group of children the characteristics evident in each child are close in proximity. As no characteristic stood apart from the group this suggests that all of the characteristics need to be considered for inclusion in the teacher observational profile.

The sequence and combinations of the Visual Art learning characteristics as shown in the results can be considered in relation to the following explanation. This explanation is made up of the three combinations of characteristics and sets out the relationships with one another. The first combination of characteristics, emphasise a priority over the other combinations. This combination not only demonstrates an interrelationship between the characteristics but also requires a child to have these characteristics to an exceptional level simultaneously. Visual awareness of ideas and objects needs to operate in tandem with the storing of the observations. One is dependent on the other. An exceptional child in the Visual Arts will possess observational skills to see an unusual idea or aspect of an object, that others may overlook, and in doing so will store the unusual idea or object as images in the visual memory. This process needs to occur before the drawing begins. This does not presuppose that visual awareness is the only method of building a store of exceptional images and ideas. In this instance the drawing lesson conducted in schools was reliant on the observational skills of the child to store images and ideas observed before commencing the drawing as well as while the drawing was in progress.

The second combination and interrelationship between characteristics involves response, evaluation and technical skill. This can be interpreted as the developing and

extending of ideas and images through responding and appraising their own and others' work. The positioning of the technical skill characteristic in this combination sets about displaying the image and idea through a Visual Art medium. An example of this is shown in child 83's drawing of the dog photographed in section 7.2. The third combination and interrelationship describes the process by which child 83 made the drawing. The child activated the composition characteristic in making the drawing by composing the structure of the dog. He was employing the media to make various marks to describe the fur and markings of the dog. This child operated the originality characteristic by interpreting the dog differently from others in the class.

The decision was made not to include colour awareness or the imagination characteristics in this group of children based on the findings of the first group of children as explained in section 7.2. No decision could be made for colour awareness or imagination, as the data did not exist; therefore, an explanation cannot be given. However, there was a strong recommendation for both of these characteristics to be included in the teacher observational profile from the literature as explained in chapter 4. The researcher can only assume that the colour and imagination characteristic would sit with the third combination for this group of children.

The explanation given implies the characteristics can be dependent on the content of the Visual Art activity. Additional evidence of this has been produced by the imagination and colour awareness characteristics as explained in section 7.1. From the interpretation of the data the researcher believes there is enough support to include all of the Visual Art learning characteristics in the teacher observational profile. Although it is necessary to include all the characteristics it depends on the nature of the activity as to which characteristics apply to a work sample. Separate profiles for various visual arts activities would not support a structured approach as explained in 4.1.

7.4 ANALYSIS OF CHILDREN IDENTIFIED WITH GENERAL LEARNING CHARACTERISTICS TO AN EXCEPTIONAL LEVEL

In the third group of children the researcher identified thirteen children from the table of contents who were awarded a significant number of exceptional general learning characteristics on their Teacher Observational Profile for Gifted and Talented Children in the Visual Arts.

The following table sets out the pattern of general learning characteristics as they apply to the thirteen children. Each child that was awarded with an exceptional characteristic was marked with an asterisk.

Table 7.3 The Pattern of General Learning Characteristics

Child	Problem solving	Development	Self criticism	Independence	Concentration	Personal Satisfaction
54 13 yrs	*	*	*	*	*	*
83 8yrs	*	*	*	*	*	*
94 8yrs	*	*	*	*	*	*
95 8yrs	*	*	*	*	*	*
98 8yrs	*	*	*	*	*	*
30 6yrs	*		*	*	*	*
86 8yrs		*	*	*	*	*
97 8yrs	*		*	*	*	*
77 5yrs	*		*	*	*	*
82 5yrs	*		*	*	*	*
68 11yrs		*	*	*	*	*
78 5yrs	*		*	*	*	*
80 5yrs	*		*	*	*	*

The general learning characteristics revealed one combination of characteristics, and two characteristics that were independent of one another.

1. The four characteristics that formed a combination and interrelated with one another were self criticism, independence, concentration and personal satisfaction. All thirteen children displayed this combination of characteristics.
2. Problem solving was awarded to eleven of the thirteen children and is not interrelated with any other characteristic.
3. Development was awarded to seven of the thirteen children and is also not interrelated with any other characteristic.

An emphasis was placed on self criticism, independence, concentration and personal satisfaction followed by problem solving and then by development.

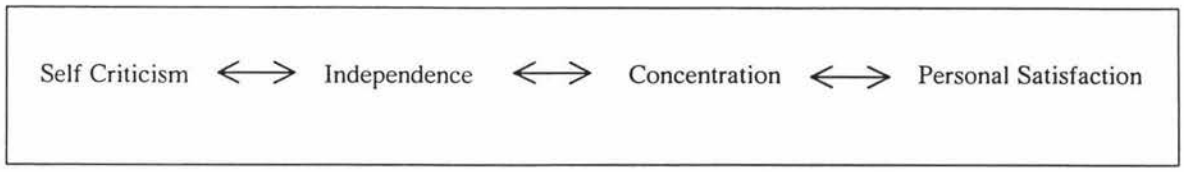


Figure 7.2 The combination of general learning characteristics

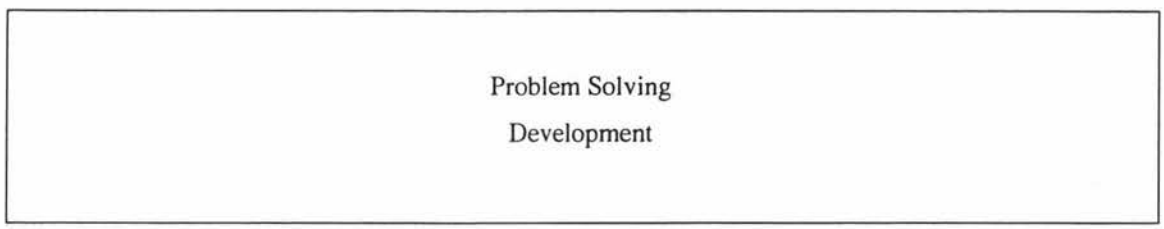


Figure 7.2.1 Independent general learning characteristics

The four characteristics in Figure 7.2 interrelate and depend on one another. A child working at an exceptional level in the Visual Arts needs to be striving for perfection and excellence. This interrelates with being an independent worker even when in a group situation. Involvement for periods of time is derived through personal satisfaction by being involved in Visual Art activities. The researcher sees this combination of characteristics as being vital to task commitment. If a child does not have this combination of characteristics then commitment fails and can be the difference between producing an average work sample and an exceptional work sample. In this sample of children all have produced the necessary characteristics; therefore, feature in the exceptional category of general learning characteristics. In this group of children there was only one combination of interrelating characteristics. This presupposes that the other two characteristics shown in Figure 7.2.1 are quite independent and do not form interrelationships and combinations. However, problem solving is an independent characteristic but is positioned in close proximity to the combination of the four interrelating characteristics. The role of the problem solving characteristic is to form an alliance to the combination of general characteristics. An example of this can be seen in child 54, who is grappling with the problem of the angle of the handlebars and the tray at the back of the tricycle. The photograph of the work sample shows resolution in the handlebars and a spatial problem in the tray at the back of the tricycle. The inconsistency shown in this example must be balanced with the degree of difficulty involved for a child of this age to solve these Visual Art problems. The literature supports the findings of this study that individuals who perform to an exceptional level

in the Visual Arts require general abilities such as problem solving, which sit outside the Visual Arts domain, to support their achievements (Renzulli & Reis, 1986).

Taking this into account the researcher would place the child in the exceptional category. For the child to have reached this level of drawing skill the child needed to exercise commitment involving the affective characteristics of self criticism, independence, concentration and personal satisfaction.

At variance to the characteristics explained so far for this group of children is the development characteristic. This was seen apart from the rest of the general learning characteristics. Of the thirteen children, six were not awarded with this characteristic. Four of these children were aged five and one was six. The teachers who applied the teacher observational profile did not award on the basis of the limited time the child had spent at school. They felt that they had not observed the child sufficiently to have knowledge about the child in which to make informed judgements. Child 97 was not placed in the exceptional area but the above average area for this characteristic. The child shows understanding of the shape, structure, texture and proportions of the dog that rate it in a high area; however, the use of the media is tentative, positioning the child in the category given by the teacher.

The application of the development characteristic in the teacher observational profile will be determined by how long the teacher has known the child. However, this characteristic can be monitored and applied to some but not all children.

7.5 ANALYSIS OF THE THREE GROUPS OF CHILDREN

Ten percent of the first group of children displayed both the Visual Art learning and general learning characteristics to above average and exceptional levels, which included children from all schools participating in the trialing process. The data demonstrated that schools, irrespective of their socio-economic background, or commitment to Visual Arts have children that are gifted and talented in the Visual Arts. School D, which had a concentration of these children was influenced by three factors. Firstly, the new entrant teacher had knowledge and understanding of the Visual Arts. All children who attend the school entered her programme and throughout her teaching methods she gave confidence and encouragement by providing a structured approach when learning about

the Visual Arts. Secondly, the children who had abilities in the Visual Arts were known to teachers throughout the school and were given opportunities to practice their skills. Thirdly, value was placed on this curriculum area and ongoing visible models displayed examples of exemplary practices throughout the school. A possible additional factor, not able to be assessed by the researcher, was parental support.

The second group analysed were the children who were identified with exceptional qualities in the Visual Art learning characteristics. This revealed three combinations of interrelating characteristics that were necessary to identify children to be gifted and talented in the Visual Arts. For children to be operating in the high distribution range, they needed to have the three combinations interrelating in unison, forming an alliance moving from one combination to another.

The third group analysed were the children who were identified with exceptional qualities in the general learning characteristics. This revealed a combination of characteristics that interrelate and are dependent on one another, with two characteristics that do not work in combination with one another. It seems that a combination of affective characteristics is required to make the problem solving skill operational at an exceptional level, whereas the development characteristic is independent of the other characteristics. The development characteristic may not be required on the tool as it pervades all characteristics. A child who is five and not awarded with this characteristic may have accelerated through stages of learning as shown in the photographs of children 30 and 77.

The results from the first analysis revealed that both the Visual Art learning and general learning characteristics contribute to identifying a gifted and talented child in the Visual Arts, but not necessarily always to an exceptional level. Children can be ranked in the high distribution level by operating characteristics above average and exceptional in quality.

The results from the second analysis show that children need to have three combinations of Visual Art learning characteristics that interrelate together for children to be operating at the exceptional level.

The results from the third analysis show that children need to have a combination of general learning characteristics that interrelate together with one or two independent characteristics that can make links to the combination of characteristics. The development characteristic has shown agreement with the literature that it pervades all characteristics. There is a strong possibility that it is already identified in other characteristics and therefore should be removed.

The three combinations of Visual Art learning characteristics and the one combination of the general learning characteristics compliment and depend on one another. The Visual Art learning characteristics require the general learning characteristics. Outside the combinations of Visual Art and general learning characteristics, independent characteristics can operate making links or joining onto combinations.

When analysing all three groups of children who were ranked highly, not all children were identified in the three groups.

Table 7.4 Children Who Were Ranked Highly in the Three Analyses

Child Number	Highly Ranked Children Identified in 7.1	Children Identified with Visual Art Learning Characteristics Explained in 7.2	Children Identified with General Learning Characteristics Explained in 7.3	Age of Child
1 53	*			13 years
2 54	*		*	8 years
3 68	*	*	*	11 years
4 83	*	*	*	7 years
5 86	*	*	*	8 years
6 94	*	*	*	8 years
7 95	*	*	*	8 years
8 98	*	*	*	8 years
9 55	*	*		13 years
10 62	*			10 years
11 66	*			11 years
12 82	*	*	*	5 years
13 84	*	*		7 years
14 77	*		*	5 years
15 97	*		*	8 years
16 30	*		*	6 years
17 78		*	*	5 years
18 80			*	5 years
19 90			*	7 years
20 101		*.		10 years

Twenty children were analysed in the three groups, which revealed the following:

- Child 101 was only in the Visual Art learning characteristics;
- Child 78 was only in the Visual Art and general learning characteristics;

- Children 80 and 90 were the two included in the general learning characteristics;
- Children 55 and 84 were the two included in the highly ranked children and the Visual Art learning characteristics;
- Children 53, 62 and 66 were the three included in the highly ranked group;
- Children 54, 77, 97 and 30 were the four included in the highly ranked children and the general learning characteristics; and
- Children 68, 83, 86, 94, 95, 98 and 82 were the seven included in all three groups.

The children who were identified in all three groups are the children who are operating at the high end of the distribution range.

The children who were identified in two of the groups showed exceptional qualities in two of the three groups. The children who were identified in one group showed exceptional qualities in one group of the three. These children revealed stronger qualities in either the Visual Art learning characteristics or the general learning characteristics. This does not however preclude them from being identified as gifted and talented in the Visual Arts.

Each profile, along with the work sample that was analysed, identified unique samples of exceptional qualities for the age of the child. Given that the artwork produced in the Visual Arts is not a reproduction of another artwork, it is not surprising that different children have been identified in different groups. The concerning aspect of the findings when analysing the three groups of children is that a significant number of children would have been overlooked if this approach had not been adopted. This proves how easily children with exceptional qualities in the Visual Arts may be overlooked in under represented groups described in section 2.3 and therefore not included in programme opportunities.

Children who were rated in two or more of the three groups were the ages of 5, 6, 7, 8 and 11. No children were identified between the age of 8 and 11. The greater number was eight with a leaning towards the younger age group rather than the older age group. This suggests that children have potential at an earlier age rather than at an older age as this is around the age when the greatest emphasis is placed on the development of children's graphic skills and abilities. The drawings of these children displayed

considerable detail emerging toward a true-to-life representation of the subject. The eight-year-old child had achieved true-to-life representation of the subject, which according to the literature is achievable for a child around ten years old as described in chapter 2 (drawing). The qualities exhibited in these children were more than mere precocity; it was cognitive activity operating the characteristics at the high distribution range.

7.6 SUMMARY

The third modification of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts was trialed in three schools with a sample of three hundred and eighty four children in phase four. The data from the sample was analysed to provide three sets of results in phase five. This was to determine two factors. The first factor was to determine whether the characteristics existed in the children's work samples to an exceptional level. The second factor was to determine whether patterns of characteristics could be identified at exceptional levels.

The first group of children and their work samples analysed, provided evidence of both Visual Art and general learning characteristics at both above average and exceptional levels. The second group analysed, provided evidence of exceptional qualities along with three combinations of interrelating patterns of Visual Art learning characteristics. The third group analysed provided evidence of general learning characteristics, which were different to the Visual Art learning characteristics. The pattern revealed only one combination along with independent general learning characteristics. When analysing and comparing the three groups of children not all children in the sample were identified in all groups.

The results of the data from the sample revealed evidence of individual characteristics as well as patterns of characteristics. These characteristics, which make up the Visual Art and general learning characteristics are dependent on one another in different combinations in the third modification of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts.

CHAPTER EIGHT

DISCUSSION AND CONCLUSIONS

This chapter discusses the results from the data analysed in phase five and draws conclusions from the qualitative study. Phase five presented the analysis, which is described in chapter seven. The writing up of the data in phase five along with the conferral of the final Teacher Observation Profile for Gifted and Talented Children in the Visual Arts is presented in this chapter. The first section discusses the relevant data relating to each of the four research questions and draws conclusions. The second section discusses the limitations and implications of the study. The third section recommends future research to be carried out and the fourth section gives an overview and final comments.

The aim of this study was to develop a Teacher Observation Profile for Gifted and Talented Children in the Visual Arts which would be suitable for teachers to use in New Zealand primary schools. A major focus was on the characteristics to include in the teacher observational profile to identify children as gifted and talented in the Visual Arts. A further focus was to determine the qualities of the characteristics used to identify children operating at an exceptional level.

8.1 CONCLUSIONS IN ANSWER TO THE RESEARCH QUESTIONS

This section discusses the evidence revealed in each phase of the study which relates to the four research questions.

Question one asked what the issues and problems were in developing a Teacher Observation Profile for Identifying Gifted and Talented Children in the Visual Arts.

The literature reviewed in phase one identified major issues and problems with definitions, concepts, structures and characteristics and revealed no one conclusive set of definitions that constituted gifted and talented in the Visual Arts (Clark & Zimmerman, 1983; 1984; 1992).

The literature recommended a multiple category approach rather than a single category approach (Clark and Zimmerman, 1992; Gardner, 1983; Marland, 1972; McAlpine, & Moltzen, 1996; Renzulli & Reis, 1986). This broader definition included intelligences and characteristics typical of the artistic child performing to an exceptional level in the Visual Arts. If the study had focused on the single category approach this could have led to the exclusion of artistic children performing in the Visual Arts. The notion of the single categorical approach generally characterises the intellectual ability of the child but does not necessarily include the intelligences, which characterise the artistic child (Davis & Rimm, 1994; Khatena, 1982; 1987; Lowenfeld & Brittain, 1964; McAlpine & Moltzen, 1996; Renzulli & Reis, 1986; Szekely, 1981; Torrance, 1984). The researcher observed children who were identified by their teachers as possessing high general intellectual ability and high artistic ability in the Visual Arts.

The term gifted and talented in the definition aligned to the multi category approach and supported the notion of intelligences within the Visual Arts as well as general intellectual ability (Arnhem, 1969; Clark, 1997; Clark & Zimmerman, 1984; 1992; Gallagher & Gallagher, 1994; Gaitskell & Hurwitz, 1975; Lark-Horovitz, Lewis & Luca, 1973; Lark-Horovitz & Norton, 1959; Luca & Allen, 1974; McAlpine, 1996; Renzulli & Reis, 1986). Some researchers view artistic performance as not requiring academic intelligence (Dehann & Havighurst, 1961; Lowenfeld & Brittain, 1964). The research supported the view of gifted and talented children not only in terms of being intellectually able but also as possessing multiple abilities, skills and characteristics in the Visual Arts (Gardner, 1989; McAlpine, 1996). Providing the teacher observational profile based on a multi category concept highlighted the need for definition, identification and differentiated programming for children who are gifted and talented in the Visual Arts (Clark & Zimmerman, 1983; 1984; 1992; McAlpine & Moltzen, 1996; Ministry of Education, 2000; Renzulli & Reis, 1985).

The literature search also revealed no agreed characteristics, definitions, criteria, format or instruments for profiling gifted and talented children in the Visual Arts. In some instances, the instruments contradicted one another and revealed many ways that characteristics could be defined and interpreted. The necessity of three modifications of the initial formation of the teacher observational profile, along with a final version from the study, supports a conclusion from the literature review that no one set of

characteristics can adequately or definitively describe the many aspects of the gifted and talented child in the Visual Arts (Clark & Zimmerman, 1992).

However, the teacher observational profile developed in the study identified children in the Visual Arts who were gifted and talented. This supported the view that a controlled situation with a structured system provided teachers with improved knowledge on gifted and talented children in the Visual Arts (Clark & Zimmerman, 1983; 1984; 1992; Kay, 1982; Khatena & Morse, 1987). Teachers were often surprised about the characteristics that some children possessed and in many instances the teacher observational profile did not support their previous informal observations. This finding supported the literature in that children who are gifted and talented in the Visual Arts do not always reveal their artistic abilities in the classroom situation (Clark & Zimmerman, 1984). It also supported the view that teachers often relied on their subjective knowledge, rather than using procedures to provide objective knowledge, when evaluating children's performance in the Visual Arts (Clark & Zimmerman, 1983; 1984; 1992; Khatena & Morse, 1987).

The initial structure of the teacher observational profile gave information about the characteristics children possess, criteria to determine levels of attainment and a scoring system. The problem with the levels of attainment was the understanding of the word 'criteria' shown in the first and second modifications of the teacher observational profile. By exchanging the word 'criteria', to 'quality', the levels of attainment from frequency to quality were clarified. This was a shift in focus from the literature reviewed (Mc Alpine & Reid, 1996; Renzulli & Hartman, 1972). The mathematical formulae developed in the scoring system, was contrary to the observational process, which teachers used when administering the teacher observational profile. The scoring system misinterpreted information, which was contrary to the literature reviewed (Mc Alpine & Reid, 1996; Renzulli & Hartman, 1972).

The Teacher Observation Profile for Gifted and Talented Children in the Visual Arts collaborated with work samples, which could include more than one completed artwork, as well as notes, preliminary drawings, sketches of ideas, developmental works of ideas, media and technique investigations. These items provide a teacher observational profile

for children from multiple sources, which increases opportunities for effective identification.

Question two asked what are the abilities, skills, behaviours and characteristics that need to be included in a Teacher Observation Profile for Gifted and Talented Children in the Visual Arts.

The selection of characteristics for the structure of the teacher observational profile took into consideration the behaviours, skills and abilities, which could be exhibited in children.

The critical factor determining the initial characteristics to be included in the teacher observational profile were researchers who identified a characteristic and incorporated it into a structured instrument, irrespective of consistency with the definition (Gaitskell & Hurwitz, 1975; Lowenfeld, 1946; Wachowiack, 1985). To fully examine the identified characteristics from the literature, the researcher utilised the knowledge and skills of the teachers from the pilot school in phase two; the expertise from the professional panel provided from the questionnaire in phase three and the data produced from the trial schools in phase four. The characteristics identified were tested against children's work samples to determine the existence of each characteristic (Clark, 1989). The modifications made to the characteristics are shown in appendix P and provide some assurance as to the robustness of the keywords and the statements of characteristics developed in the study.

The children who participated in the teacher observational profile displayed the qualities and characteristics included in the teacher observational profile to some degree (Lark-Horovitz & Barnhardt, 1942; Lark-Horovitz & Norton, 1959; Lark-Horovitz, Lewis & Luca, 1973). The data analysed in phase five revealed characteristics, which inter-linked with one another (Clark, 1989; Renzulli, 1986; Stalker, 1981) as well as identifying independent characteristics. Inter-linking and independent characteristics influenced one another and were required for effectual identification. These appeared to transfer a range of intellectual, emotional and creative connections, which were supported in the literature and were included in the definition provided by the researcher (Clark, 1989; Renzulli & Reis, 1986; Seeley, 1996).

Children who displayed a number of individual characteristics were not identified as gifted and talented in the Visual Arts. Those who displayed inter-linking and independent characteristics were identified as gifted and talented in the Visual Arts in the above average and exceptional categories of the characteristics. Children who displayed the majority of characteristics operating in the exceptional level were ranked at the top of the high distribution level (Clark & Zimmerman, 1992). These were the children who produced unique executive drawings demonstrating the true-to-life appearance of subject matter well in advance of their age peers (Getzels & Csikszenthemihayi, 1976; Lark-Horovitz & Norton, 1959; Lark-Horovitz, Lewis & Luca, 1973; Stalker, 1981).

The variations within the combinations of inter-linking and independent characteristics would account for some children being more innovative with ideas while others may be more skilled at art making and vice versa (Clark, 1989; Lark-Horovitz, Lewis & Luca, 1973; Lowenfeld & Brittain, 1987; Szekely, 1981). Even within one cluster of inter-linking characteristics variations would occur. A child could demonstrate a cluster of inter-linking characteristics that produced only technical proficiency or compositional advancement (Gardner, 1980; 1982; Lark-Horovitz, Lewis & Luca, 1973; Richardson, 1973; Wilson & Wilson, 1982). Characteristics may operate within a child at any one time by being under-developed, inert, or advanced (Gardner, 1989; McCaughey, 1997).

The teacher observational profile does not function without work samples or visa versa (Clark, 1989; Clark & Zimmerman, 1984; 1992; Lark-Horovitz & Norton, 1959). Research reveals that teachers who had relied on work samples without the teacher observational profile did not yield the type of information required (Clark & Zimmerman, 1984; 1992). A work sample does not need to be a finished drawing. It can be made up of a collection of ideas, notes, preliminary drawings and sketches (Clark & Zimmerman, 1984; 1992). It is desirable to view several work samples from one child. Although the teacher observational profile was only administered through one work sample for each child, in most instances the teacher of the child had taught and observed a number of artworks in various Visual Art disciplines over time. Although the data collection for the study occurred in semester two, teachers experienced difficulty in providing sufficient information on five year olds who were new into the school system.

The literature recommends that before collecting data teachers should be familiar with the characteristics and abilities of children in their classes (McAlpine, 1996).

It was not necessary to have identical drawing tasks when applying the teacher observational profile. Teachers assigned drawing tasks using a range of delivery styles and subject matter (Lark-Horovitz, Lewis & Luca, 1973). In this research, teachers selected animals as their main theme, although other subject matter was included. This impacted on the characteristics that were able to be trialed in the Teacher Observation Profile. Imagination and colour awareness were two characteristics that were not utilised because of the nature of the drawing tasks. Children used their observation rather than their imagination skills and the drawings were not in colour.

Seventeen characteristics were initially identified from the literature search that had already been modified, adapted and tested for educational purposes in the Visual Arts. They were identified from the international literature and came from identification structures. Included were three characteristics that did not come from the international literature. These characteristics included aspects from the New Zealand Visual Arts curriculum (Ministry of Education, 2000). They were added initially but were eliminated through the modification processes. However, this does not presuppose that additional characteristics should not be included in the future and subjected to a rigorous system of testing to prove their reliability and verification. Not only did the characteristics identified in the international literature prove reliable, they were modified and adapted for the New Zealand Visual Arts curriculum in primary schools (Ministry of Education, 2000).

The definitions of the characteristics, however, proved an ongoing source of difficulty. In all three modifications the majority of statements underwent major or minor changes. The linking of visual with verbal language was problematic. Both languages have different realms in which they operate. The verbal language did not necessarily explain adequately the visual thinking, the visual process or the visual product (Fredette, 1995; Fredette & Hunter, 1993). Some teachers experienced difficulty with verbal language and not visual language and vice versa. The work samples had a positive effect on the verbal language problems. Some teachers were able to 'show' rather than 'explain' when referring to characteristics. Most teachers could understand the keywords and

definitions of the third modification of the teacher observational profile and made no further suggestions for clarification of keywords and statements or the addition of further characteristics.

Keywords were carefully considered that could clarify and assist in the definition of a characteristic. The key wording of characteristics proved efficient and effective for teachers to use. Definitions explaining the keyword of characteristics included the behaviours, abilities and skills displayed in children who were gifted and talented in the Visual Arts.

The rigorous testing and development procedures have determined whether the characteristics are reliable. Throughout the five phases of the development of the teacher observational profile, the characteristics that have remained have proven their appropriateness.

Question three asked at what age or stage could gifted and talented children in the Visual Arts be identified.

The development of the younger child's motor responses was a measure used by teachers in the pilot and trial schools to see whether this inhibited the capabilities of the child to achieve to an exceptional level. They used the drawing task to see if a child had sufficient motor control to draw subject matter so it appeared true-to-life to the item drawn. Many children were observed performing in the true-to-life mode far earlier than the age of eleven, which the literature uses as a benchmark (Lark-Horovitz, Lewis & Luca, 1973). It would appear that generally children in New Zealand schools develop through the stages of artistic development to the true-to-life stage early in their life and have the potential to be identified as gifted and talented when very young (Dover, Rowe, Thomson & Turner, 1987; Kellogg, 1979; Isenberg & Jalongo, 1997).

The data collected from the work samples and the teacher observational profile provided evidence of children of all ages who displayed characteristics in the exceptional category. Some children who were ranked in the high distribution category were not awarded in all characteristics. This occurred specifically with new entrants. However, this did not prevent four five year olds from being included in the group of the twenty

highest ranked children. This supports the view that gifted and talented children can be identified at a very young age although there is reservation that this may not be an indication of real talent (Bloom, 1985; Gardner, 1983; Hubbard, 1989; Lark-Horovitz, Lewis & Luca, 1973). Whether these children reach artistic maturity through a learning environment that fosters and nurtures their responsiveness to the Visual Arts remains to be seen. The group of children in the eight year old age group who were identified in school D worked together in a group rather than being isolated from one another. This factor, coupled with the visible evidence of the Visual Arts in the school environment, supported the literature on a nurturing environment (Plomin, 1997). The literature generally supports the view that a child needs to reach maturity before they have the facilities to perform to exceptional levels compared to their peer group and reveal real talent (Clark & Zimmerman, 1992; Wilson & Wilson, 1982).

Question four asked how could the teacher observational profile be practical, efficient and reliable for educators to use.

The structure of the teacher observational profile was established in agreement with examples from the literature reviewed and in discussion with the teachers in the pilot school (McAlpine & Reid, 1996; Renzulli & Hartman, 1972; Renzulli & Reis, 1986). The literature samples of structured systems showed little variation to the structure used by the researcher. Each child required an individual teacher observational profile, which could be referred to at any stage of the child's development within the school environment (Fatouros, 1986; Feldman, 1991; McAlpine, 1996).

The number of characteristics went through a series of modifications of being added, eliminated and being incorporated into other characteristics. The teacher observational profile began with nineteen characteristics in the initial formation of the instrument and under went four modifications. The final instrument has fifteen characteristics. The fourth modification occurred after trialing the teacher observational profile in the sample schools. This provided further evidence to eliminate the development characteristic, which is shown in appendix Q. The characteristics that were trialed covered the drawing requirements exhibited in the work samples. Not all of the characteristics may be identified through one work sample as shown in the findings of the pilot and trial schools. However, the researcher believes that all the characteristics

must be included given the variety of approaches to teaching and learning in the Visual Arts (Clark & Zimmerman, 1992).

The sequencing of the characteristics was originally grouped by the researcher into Visual Art characteristics followed by characteristics that did not sit in a particular category and then followed by the affective characteristics. Through the modification process the characteristics have tracked themselves naturally into a position within the teacher observational profile. This positioning has grouped them into Visual Art learning characteristics and general learning characteristics. These groupings remain implicit rather than under clearly defined headings. The researcher is leaving the characteristics in the present sequence for the following reasons. Firstly, the teachers trialing the teacher observational profile did not comment on the positioning of the characteristics. The researcher is presuming the sequencing of the characteristics follow one another logically and without hindrance to the process of identifying children or reading of the teacher observational profile. Secondly, the characteristics have identified themselves as independent entities or inter-linking clusters that do not necessarily follow on from one another. If headings were added, the characteristics could be read as single entities rather than as inter-linking clusters as well as independent entities.

Teachers recorded their findings according to their individual marking styles. Many teachers did not sequentially go through the list but rather marked the characteristics that they were looking for at the time. Others went through the list in order of the sequence. The order in which teachers identified the characteristics does not matter as long as the characteristics are available to use. A comments column gives teachers the opportunity to justify and report on aspects of characteristics.

8.2 THE LIMITATIONS AND IMPLICATIONS OF THE STUDY

This section discusses the limitations and implications of the study based on the interpretation of the data produced from the five phases of the research design.

Limitations

The study was limited in several ways. Although most of the general principles of action research were followed, it was not possible to engage participants fully in the reflective process that would lead to improved practice. In some instances teachers'

perceptions, beliefs and attitudes had some influence against fully implementing the teacher observational profile. Teachers gave an assurance of participation in the study but in reality were reluctant to invest time and effort in the study. Two of the schools 'believed' they were developing the skills and abilities of gifted and talented children in the Visual Arts and two schools 'were' developing the skills and abilities of gifted and talented children in the Visual Arts. The more interest and knowledge a teacher had the more time the teacher committed to the implementation of the study.

A problem for some teachers was their limited teaching experience; their limited confidence in teaching the Visual Arts curriculum and particularly their limited knowledge of identification systems. However, the data reported that these teachers were able to make some predictions and identify children with a structured system and support from peers and an experienced Visual Art educator. Without this the teacher observational profile may reveal some information but not necessarily the right information and has the potential to be subjected to bias. Without a structured system the study supported the view that teachers had limited knowledge regarding the characteristics and the level of attainment of the characteristics, behaviours, skills and abilities of children performing in the Visual Arts. Without the identification system to identify these children barriers to learning in the Visual Arts are created (Clark & Zimmerman, 1984).

In all instances children who were new into the school system were unable to be identified by all of the characteristics included in the teacher observational profile. The incomplete data inhibited the knowledge about the characteristics of young children in this study. It is important that teachers delay the profiling of these children until they have sufficient understanding and knowledge about the behaviours, characteristics, abilities and skills of these children.

The teachers' programmes limited the characteristics that could be tested in the teacher observational profile. In the majority of teacher's programmes, colour and imagination were two characteristics that could not be tested against the work samples. Some subjective data was obtained from teacher's informal observations about the colour characteristic but focused on observational abilities rather than imaginative abilities could not provide data on the imaginative characteristic.

The teacher observational profile was designed with characteristics and qualities to be found mainly within the drawing and painting process. The instrument was trialed through the drawing process but not the painting process. The teacher observational profile produced in the study was limited to the drawing discipline only. It is presumed that some of the other Visual Arts such as photography and sculpture would not provide the necessary characteristics in this teacher observational profile to identify gifted and talented children in the Visual Arts.

The teacher observational profile was designed to identify the characteristics of one child. This was to allow a profile to be relocated to different locations according to the changing requirements of the child.

Throughout the modifications, the number of characteristics for the teacher observational profile required two sides of an A4 page. This tended to limit the efficient use of the teacher observational profile. Teachers preferred the characteristics to be displayed on one side of an A4 page. The final version of the teacher observational profile for this study removed this problem by placing the characteristics on one side of an A4 page.

The study only examined one work sample from each child who participated in the research process. Until further examination, of more than one work sample per child, can accuracy of the characteristics included in the teacher observational profile be confirmed. However, the data produced evidence of the characteristics occurring in a number of children in the high distribution range which provided a measure of reliability to the study.

Children who were included in the three sets of data analysed were identified as performing at the top of the high distribution range. Children who were identified in either of the other two sets of data were also considered gifted and talented in the Visual Arts. If three sets of data were not analysed a significant portion of children would have been overlooked; thus limiting children included in the high distribution range as being gifted and talented in the Visual Arts.

The characteristics were limited to the ones provided in the questionnaire from the second modification of the teacher observational profile. The questionnaire, informal interviews with teachers, work samples from children and observational methods collaborated and interacted to provide validity and reliability to the characteristics included in the study. No other characteristics were considered or offered for consideration; therefore, the assumption was made that all of the characteristics that were appropriate for this study were considered.

The Implications

There were several implications that applied to the study when developing the teacher observational profile.

When identifying schools to participate in the study the researcher found two schools out of the four were providing some enrichment for children who were gifted and talented in the Visual Arts. The other two schools thought they were catering for the gifted and talented children in the Visual Arts and were unaware they were not. None of the schools had a policy for gifted and talented children although the pilot school had formed a register to record information about these children. All schools required considerable time from the researcher to train teachers to use the teacher observational profile. This involved presenting the purpose and justification of the study, the planning of the programme to identify these children and the administering of the teacher observational profile to the work samples. The implication for schools is to implement a policy for gifted and talented children in all areas of the curriculum including the Visual Arts. The principles, professional development for teachers, models of proven practices, resources and support are all required for identification purposes.

Teacher attitude was difficult to change within the time frame of the study. This was particularly evident in the two schools where limited activity in identification and programming had occurred for gifted and talented children in the Visual Arts. These two schools had little concept of gifted and talented education. The researcher was encouraging these teachers to shift their perceptions in two ways. Their perceptions had to shift; firstly, from not having a belief or knowledge in gifted and talented education in the Visual Arts to acknowledging its existence. Secondly, a shift in attitude had to be made from an unstructured approach to teaching and learning in the Visual Arts to a

structured approach in the identification of gifted and talented children in the Visual Arts. The implications to implement change in teacher attitude requires a national policy with expectation which includes the Visual Arts in a definition on gifted and talented education. From this a national framework would provide schools with the opportunity to develop their own policies, principles, strategies, expectations and motivations to bring about change. Commitment and leadership would be required from the principal and other interested or qualified colleagues in the school.

The current political climate for schools is on assessment systems to measure a child's performance in a curriculum area rather than on identification systems. The pilot school was the only school out of the four that had been involved in an identification system. To make programmes and identification equitable, the provision is not to solely reward achievement through assessment but to develop identification for exceptional potential to occur. Emphasis placed on identification, rather than assessment, will not only develop the exceptional abilities in the child but will also reward the child. This approach has the potential to increase the number of children who will achieve highly at an exceptional level. Schools who do not consider identification necessary will not tend to use structured systems and therefore only cater for a small selection of children (Clarke & Zimmerman, 1984). The use of identification instruments will ensure inclusion rather than exclusion of these children (Richert, 1997).

The concern for two of the three schools was the amount of time involved in the identification system. School D, which identified a group of eight year olds did not consider this an issue and provided the time. The researcher went back to the school a second time to complete the identification system with the teachers involved. This school recognised the importance of the system and the teachers were interested in identifying these children in order to provide programmes to foster their abilities in the Visual Arts. The same commitment came from the pilot school. The implication is to set aside sufficient time in which to implement the identification process.

Until structured nomination systems for identifying children are in place in schools, there will continue to be considerable underachievement among children of all cultures and socio-economic groups in the Visual Arts. We will never know how many children are capable of exceptional work unless their needs are met in the classroom. To offer

equitable structured nomination systems one needs to be aware of cultural and socio economic sensitivities and identify from appropriate resources. To address underachievement structured nomination systems will need to be used widely in schools throughout New Zealand.

The researcher recommends that teachers apply the teacher observational profile with a colleague who is knowledgeable in the Visual Arts curriculum and has experience of identification systems. This could occur through working in pairs or groups alongside one another. Once a teacher becomes proficient in administering the teacher observational profile they can provide guidance and expertise to their colleagues, which is what occurred in the pilot school. By using a buddy system, an experienced teacher can be paired up with a not so experienced teacher. Teachers can operate in their syndicates as schools A, C and D did or a whole school can collaborate which is what happened in school B. The implications of this, is that teachers would need to set aside time to train their peers and implement the system. Many teachers may also need to improve their qualifications and knowledge on children who are gifted and talented in the Visual Arts.

The implications for schools, is to employ teachers with qualifications and strengths in gifted and talented education as well as the Visual Arts curriculum. The training of teachers must occur at preservice and inservice level to ensure this occurs. With training, teachers will not only provide leadership and training to their colleagues, but also, ongoing staff development as the researcher did throughout this study. Building expertise in schools will change attitudes, increase resources, and educate gifted and talented children in the Visual Arts.

8.3 FUTURE RESEARCH

The implications and limitations interpreted from analysing the data has provided directions for future research into the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts. The following options are offered:

1. Some of the teachers in this study were not aware of the staff development and time required for identification to operate successfully. Research should be conducted to find out the most effective method of professional development so that teachers understand the requirements of structured identification systems and

are knowledgeable in their implementation. Professional development should be included as part of a package for implementing the teacher observational profile;

2. Reliability and robustness may be improved by frequent usage of the teacher observational profile over several artworks. This would include activities, which could examine the imagination and colour awareness characteristics. This would balance the findings of the characteristics that produced data in this study and address the issue of including them in the Teacher Observational Profile for Gifted and Talented Children in the Visual Arts;
3. Further research is required into the efficiency and effectiveness of the teacher observational profile to improve the amount of time spent on administering the teacher observational profile;
4. Include specific instructions when administering the teacher observational profile to provide better direction. For example, do not to use colour awareness characteristics in black and white artworks or do not use the imagination characteristic when observational exercises are used and imagination does not apply;
5. A longitudinal study of the same children could be conducted at different stages during the year as well as tracking them in different years to monitor progress and development throughout a range of work samples. This would improve the validity of the teacher observational profile;
6. The teacher observational profile requires ongoing development and trialing over time including further consideration of characteristics not thought evident at this stage. This would increase the robustness, reliability and validity of the teacher observational profile;
7. The teacher observational profile could be used over a range of disciplines in the Visual Arts such as painting, multi-media works, computer graphics, design, printmaking and sculpture. This could help balance observations and address issues where one type of media or exercise suits some students more than others, for example students who are more able in painting than drawing; and
8. For teachers to be aware of the existence of the teacher observational profile, research is necessary to investigate the most appropriate method for disseminating information to schools providing a set of instructions and exemplars for administering of the Teacher Observation Profile for Gifted and Talented Children in the Visual Arts.

The options including professional development, trialing several work samples of one child, tracking children, trialing characteristics not tested or included, providing a set of instructions on how to use the teacher observational profile, improving efficiency and effectiveness, trialing other Visual Arts disciplines will provide considerable support to the identification of these children.

8.4 OVERVIEW AND FURTHER COMMENTS

To collect data in the qualitative study the researcher used observational methods, interviews, a questionnaire and work samples to find out about characteristics to identify gifted and talented children in the Visual Arts. A sample of 448 children between the ages of 5 and 13 years participated in this study. Twenty classes with twenty teachers in four schools were involved from a range of socio-economic groupings.

The broad approach to the research process was based action research principles and methods. The researcher developed a plan using observational methods, which involved a cyclic process of action and reflection utilising five phases. The qualitative process produced a structure for teachers to use in primary schools, which provided a teacher observational profile of characteristics for children who are gifted and talented in the Visual Arts.

Analysis of the results highlighted the need to use a multi method approach to identify gifted and talented children. All of the children who ranked highly in the analysis did not necessarily rank highly in the three analyses undertaken. Many of the same children, however, were identified in the three analyses. There were a small number of children who either emphasised the general learning characteristics or the Visual Art learning characteristics but did not rank highly in one or two of the analyses. The teacher observational profile was capable of categorising different ability groups of children in the Visual Arts.

Teacher bias was evident in the teacher observational profiles completed for some work samples. The researcher viewed some work samples identified by teachers as possible products of gifted and talented children being similar to their age peers. Effective ranking of children for identification does not presume highly ranked children.

One school in four implemented the principles of identification for gifted and talented children and in particular the Visual Arts. Two schools in four nurtured the best practice in Visual Art development and had the highest number of gifted and talented children.

The concept and definition implied that gifted children in the Visual Arts may be genetically orientated and through nurture of the gift talent emerged. A child will not flourish until both the gift and the talent are nourished. The talent may be the exceptional levels of motivation, intensity, perseverance or problem solving skills that advance the gift (Clark & Zimmerman, 1998). The paradox could be whether the gift advances the talent or the talent advances the gift within the Visual Arts.

The majority of children who participated in the teacher observational profile passed through the schematic stage of graphic development to the true-to-life stage at an early age. Children in New Zealand primary schools have the potential of developing their exceptional characteristics in the Visual Arts from a young age. The group of younger children identified in one of the four schools provided three known factors towards the value of a supportive learning environment. Firstly, they worked together in a group rather than as individuals in a school. Secondly, the school had regular displays of the children's artwork. Thirdly, the teachers were confident and knowledgeable in the teaching and learning of the Visual Arts. A fourth factor may be the support given by the family background. The study supported the definition of the multi category approach using a structured process, which identified characteristics (Clark & Zimmerman, 1983; 1984; 1992; Ministry of Education, 1999).

Future research is required into developing the teacher observational profile in the primary school system in New Zealand. The research requires further investigation into the administering of the instrument within schools and the instrument itself. The efficiency in administering the system of identification needs to improve. A set of instructions is needed to be included with the instrument. Three factors will influence the reliability and validity of the instrument itself. The first factor will be the examination of more than one work sample of a child's artwork over time. The second factor will be the examination of characteristics which have no reliable data included within the final instrument and other characteristics that may not be included. The third factor will be the examination of these characteristics to see if they form the basis to

other disciplines of the Visual Arts. An implication of the study is the need for professional development of staff to improve their knowledge and expertise of structured identification systems within the realm of gifted and talented children within the Visual Arts.

Finally, this study concludes that the teacher observational profile developed for identifying gifted and talented children in the Visual Arts is robust. With consideration to further research this teacher observational profile would be suitable for extensive use in New Zealand primary schools.

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Appendix A:
Introductory Letter to Schools

Massey University
COLLEGE OF EDUCATION
Te Kupenga o Te Mātauranga

Visual Arts Education
Department of
Educational Studies and
Community Support
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099
Facsimile: 64 6 351 3367

21 July 1999

Dear

This year I am doing a thesis to complete my M.Phil qualification. The title of my thesis is *A teacher observation profile for gifted and talented children in the Visual Arts*. For the last two years I have had the opportunity to work with one of your staff members, who has been in charge of administering the art programmes in your school. We have worked together with your gifted and talented children through our pre-service programme.

I would like to work with your school this year in developing my thesis methodology in the second phase of my project early in Term Three. This will involve setting up a process for teachers to use as a means of identifying gifted and talented children in the Visual Arts. It would be desirable to trial the observational tool with three classes at different age levels.

Of these three classes it would not be necessary for all of the teachers to be trained perceptive observers in the Visual Arts.

The process will involve observation of children working in the Visual Arts with an emphasis on drawing activities. Research has shown that drawing has been used in international literature as a skill, which may be measurable in terms of determining a child's ability in the Visual Arts.

It is anticipated that observation of the children will provide knowledge to verify or dispute the tool. It will be necessary to record data by photographing the children's work and recording their responses during the drawing activity and on conclusion of the programme. It will also be necessary to interview the teachers at relevant points of the process to determine findings.

I assure you that confidentiality of all data and information of this thesis will be secure and private and will remain anonymous. I shall provide your school with verbal briefings as necessary and written information and background as appropriate. Accurate recording of data and reporting of the research findings will be of paramount importance.

I hope your board of trustees, parents, teachers and children will be willing to be part of this valuable research process. An observational tool of this type will be beneficial to teachers in primary classrooms in our New Zealand schools in the future. Reference to gifted and talented children has been made in the draft Arts Curriculum, and is now becoming a focus in our educational environment.

Awaiting your reply.

Yours sincerely

Jill Brandon
Visual Arts Co-ordinator

Appendix B:
Consent Form for Schools

Massey University
COLLEGE OF EDUCATION
Te Kupenga o Te Mātauranga

Visual Arts Education
Department of
Educational Studies and
Community Support
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099
Facsimile: 64 6 351 3367

CONSENT FORM

I freely consent for our school to be involved in the research study as outlined in the letter dated 30 September 1999. I understand the purposes of the research and have had opportunities to ask questions and gather information about it.

I have consulted with the board of trustees, parents, teachers and children and they are willing to be involved in this research opportunity. We know that we can decline to answer any particular questions or supply specific data. Also that we are able to withdraw from the study if circumstances change at any time.

I understand the ethical considerations of confidentiality and that participants in this research shall remain anonymous.

Signed: _____ **Date:** _____

Thesis:
Jill Brandon : A teacher observational profile for identifying gifted and talented children in the Visual Arts.

Questionnaire on
Teacher Observation Profile for
Identifying Gifted and Talented Children in the Visual Arts

Comment or tick the appropriate box.

1. Which category do you represent. If you represent more than one category, tick the ones you represent.

Academic	Teacher Primary	Teacher Secondary	Parent	Other _____
☐	☐	☐	☐	☐

		Like it	Don't like it	Comments
2.	Name of Tool: Teacher observation profile For identifying Gifted and Talented Children in the Visual Arts	☐	☐	_____
3.	Wording of Criteria: 1 Occasionally 2 Usually 3 Exceptional	☐	☐	_____
4.	Number of Criteria	☐	☐	_____
5.	Scoring Process	☐	☐	_____
6.	Format	☐	☐	_____
7.	Sequence of Characteristics	☐	☐	_____
8.	Key wording at beginning of each characteristic	☐	☐	_____

9. Comment on the keyword and the sentence explaining each characteristic:

		Like it	Difficult to understand	Exclude	Comments
9.1	**Originality:** Is able to be different or interpret differently than others	☐	☐	☐	_____
9.2	**Realistic**: Shows the 'true to life' appearance of subject matter.	☐	☐	☐	_____
9.3	**Visual Memory:** Possesses a store of images and ideas	☐	☐	☐	_____
9.4	**Observation:** Ability to see the unusual, what others may overlook	☐	☐	☐	_____
9.5	**Technical Skill:** Shows technical ability in an art medium	☐	☐	☐	_____
9.6	**Problem Solving:** Has innovative approaches to solving problems.	☐	☐	☐	_____
9.7	**Composition:** Understands the arrangement of picture making and design skills, i.e. shape, texture, space, movement, etc.	☐	☐	☐	_____
9.8	**Colour:** Is able to achieve colour subtleties, contrasts and integration of colour.	☐	☐	☐	_____
9.9	**Imagination:** Is inventive with subject matter.	☐	☐	☐	_____
9.10	**Media:** Receptive to media, techniques and equipment.	☐	☐	☐	_____
9.11	**Response:** Is able to articulate the ideas of others and extend them.	☐	☐	☐	_____
9.12	**Independence:** Able to work independently.	☐	☐	☐	_____
9.13	**Self-criticism:** Strives for perfection and excellence.	☐	☐	☐	_____

9.14	**Concentration:** Ability to be involved for long periods of time on visual art activities.	☐	☐	☐	_____
9.15	**Evaluation:** Ability to evaluate own or other's work.	☐	☐	☐	_____
9.16	**Personal satisfaction:** From involvement in visual art activities.	☐	☐	☐	_____
9.17	**Development:** Accelerates through stages of learning	☐	☐	☐	_____

		Probably	**Probably not**
10.	Would you use this tool	☐	☐
11.	Is it necessary to have a comments Column after each characteristic	☐	☐
11.1	Is it necessary to have a comments column elsewhere	☐	☐

Other: _____

_____

_____

_____

Thank you for your co-operation and participation.

Please return by **Monday 27 September 1999,** using the FREEPOST self-addressed envelope provided, to:

Jill Brandon
Senior Lecturer – Visual Arts
Department of Educational Studies and Community Support
Massey University College of Education
Private Bag 11-222
PALMERSTON NORTH

Appendix D:

TEACHER RATING

Date:

Prior Knowledge of Visual Arts before drawing activity:

Date:
Drawing Activity:
Achievement Objective:

Class: **Teacher:**

Name:	Age	Exceptional	Above Average	Average	Below Average	Exceptional	Above Average	Average	Below Average

Appendix E:
Letter to Professional Panel

Massey University
COLLEGE OF EDUCATION
Te Kupenga o Te Mātauranga

Visual Arts Education
Department of
Educational Studies and
Community Support
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099
Facsimile: 64 6 351 3367

Dear participant

I am currently studying for an M.Phil in Education at Massey University College of Education and am working on completing a thesis this year. The Arts in the New Zealand Curriculum Draft, Ministry of Education (1999, p.86) states that *programmes should extend and challenge students who are gifted or talented in the arts disciplines.* The document draws attention to the fact that schools should identify children early in their development and provide them with enriching experiences.

The purpose of the thesis is to formulate a teacher's observation instrument to be used as a profile to identify children who are gifted and talented in the Visual Arts. The instrument is designed to be used by teachers who work in the primary classroom in our New Zealand schools. It is anticipated that the instrument will be used for children who range in age from 5 to 12 years. The instrument is being developed in conjunction with a drawing activity. By providing an art activity will enable teachers to identify reliable visual data to justify their findings. Intuition or prior knowledge by itself is insufficient evidence in which to base information on about a child's artistic ability. The evidence of a child's ability occurs in the artwork itself. Prior knowledge from a parent, friend, teacher and the interest of the child itself as shown in the art work can reveal characteristics of a gifted and talented child in the visual Arts.

You have been selected to form a professional panel in which to provide critical feedback in the formation of this instrument. I am dependent on your response as an important phase in the evaluation of the draft instrument. Please be honest in your opinions. The characteristics revealed in this tool are based on a comprehensive literature review and a drawing activity with 64 children in a Palmerston North Primary School. The questionnaire is surveying the characteristics identified from the research and the art activity. The questionnaire is designed to take a minimum amount of your time. Please tick the appropriate boxes and comment where necessary and return to send in the stamped addressed envelope by **Monday 27 September 1999**.

Thank you for your cooperation and participation,

Jill Brandon
Senior Lecturer – Visual Arts

Appendix F:
Information for Schools

Massey University
COLLEGE OF EDUCATION
Te Kupenga o Te Mātauranga

Visual Arts Education
Department of
Educational Studies and
Community Support
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099
Facsimile: 64 6 351 3367

INTRODUCTION OF THE THESIS – MASTERATE

Researcher: Jill Brandon

Title: An observational tool for identifying gifted and talented children in the visual arts.

Purpose: The Arts in the New Zealand Curriculum Draft, Ministry of Education (1999, p. 86) states that *programmes should extend and challenge students who are gifted or talented in the arts disciplines.* The document draws attention to the fact that schools should identify children early in their development and provide them with enriching experiences.

The purpose of the thesis is to formulate a teacher's observation tool to be used as a profile to identify children who are gifted and talented in the Visual Arts. The tool is designed to be used by teachers who work in the primary classroom in our New Zealand schools. It is anticipated that the tool will be used for children who range in age from 5-12 years. The tool is being developed in conjunction with a drawing activity. By using a drawing activity will enable teachers to identify reliable visual data to justify their findings. Intuition or prior knowledge by itself is insufficient evidence in which to base information on about a child's artistic ability. The evidence of a child's ability occurs in the artwork itself. The combination of prior knowledge from a parent, friend, or teacher along with the child's art work can reveal characteristics of a gifted and talented child in the Visual Arts.

Resources provided by the researcher:
The format for listing the class.

The observational tool for identifying gifted and talented children in the visual arts.
An example of a drawing activity.
Negotiated resources for the drawing activity.
The questionnaire to evaluate the tool and the process.

The final tool on completion of the thesis.

Resources to be provided by the school:
Teachers and children. Sample of approximately 100 or more children, 4 or more classes.
Negotiated resources for drawing activity.
A large area for displaying and rating art work.
Children's drawings for photography purposes which will be included for discussion within the thesis. Any drawings required will be returned to the child and the child will remain anonymous within the thesis.

Appendix G:
Identification and characteristics for Schools

Definition of Gifted and Talented in the Visual Arts:

1.1 Definition, identification and programming interweave. One is dependent on the other.

1.2 A conclusive or decisive definition of gifted and talented in the Visual Arts is not possible nor is it desirable. However an explanation for presenting the term of gifted and talented in the Visual Arts is reference to students who exhibit *high abilities* in the visual arts (Clark and Zimmerman, 1992). The Arts in the New Zealand Curriculum draft document (1999) also refers to children who *may demonstrate exceptional abilities in a wide range of art forms.* The Concise Oxford Dictionary (1995) defines exceptional as *unusually good* or *outstanding.*

1.3 Skills in the visual arts are perceived in the Art Education Junior classes to Form 7 Syllabus for schools (1989) as normally distributed across all children and adults. Children with exceptional ability are distributed at the upper end of the continuum with limited abilities at the lower end (Clark and Zimmerman, 1992; Ministry of Education, 1993).

Student Characteristics:

2.1. Indicators of what the characteristics might be are varied and often contradictory.

2.2. There are many ways of describing and categorizing the characteristics of students with an aptitude for the Visual Arts.

2.3. There are no one set of characteristics which adequately cover the abilities, skills, characteristics and behaviors for children who are exceptional in the Visual Arts.

2.4. *Well developed skills in drawing, high cognitive abilities, affective intensity, interest and motivation* are perceived as indicators of gifted and talented in the visual arts. It is important to note that these factors may not be present at the same levels in a child at any given time (Clark and Zimmerman, 1992; Gardner, 1980; 1982; Renzulli, Smith, White, Callahan and Hartman, 1977; Stalker, 1981).

2.5. Attention must focus on the visual art process as well as the product when identifying a child gifted and talented in the visual arts. Potential and processes as well as performances and products are factors involved when engaged in productivity of making visual art works (Clark and Zimmerman, 1992).

Appendix H:

Teachers Background Sheet

Thesis:
Jill Brandon: An observational tool for the identification of gifted and talented children in the Visual Arts.

TEACHER'S BACKGROUND

1. Teaching qualification: _____

   Art qualification: _____

2. How long have you been teaching? _____

3. Explain your teaching experience in the Visual Arts:

   _____

   _____

   _____

   _____

4. How much art teaching do you do per week? _____

5. What qualities and skills do you look for when recommending children for art programmes? Be as specific as you can.

   - ➢
   - ➢
   - ➢
   - ➢
   - ➢
   - ➢
   - ➢
   - ➢

6. Other:

Thank you for your cooperation

Appendix I:
Sample Drawing Lesson

DRAWING

ARTS IN THE NEW ZEALAND CURRICULUM
DRAFT 1999

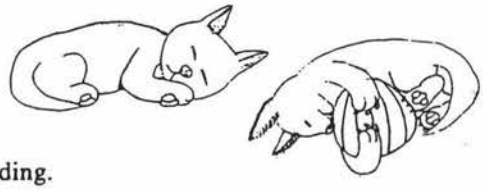
Title: Drawing	**Syndicate:**	**Time Frame:**
Strand: Learning the languages of the Visual Arts	**Links to other strands:**	

Achievement Objective:

- Children will identify and explore the elements of the visual arts using a variety of techniques and processes with a selected media.

Specific Learning Outcomes:

Level 1 and 2



- The children will draw a cat (realistic).
- The children will use lines and tones to show texture and shading.

Essential Skill Area:

- Physical Skills : develop fine motor skills.
- Self Management : develop skills of self-appraisal and self-advocacy.
- Communication : Interpret and present their own work to others.

Teaching & Learning Activities:

Lessons:

- Children will learn through observation of cats.
- Children will observe the features of a cat and how a cat stands, sits, looks, etc.
- Read cat stories; look at books; role play movements.
- Brainstorming; write own stories.
- Teach and practice skills of size, perspective, shading, texture, style.
- Communicate through books and discussion features and movement of cats; language.
- Context and setting of cat and story that goes with picture.
- Presentation of cat on A4 cartridge paper using pencil or appropriate media.

Evaluation:

Children: What problems did you have?
How did you deal with the problem?

Assessment:

- The children will show realistic features of a cat
- Rating of art work to identify gifted and talented

Assessment Criteria

1. Average
2. Above Average
3. Exceptional

Notes: The topic of the cat is optional.
Other subject matter can be used.

Appendix J:

Formation of Teacher Observation Profile for Identifying Gifted and Talented Children In the Visual Arts

Date: _____ Students Name: _____ Class/Year: _____ Age: _____ Teacher: _____	CRITERIA				
	Attempts the activity	Can do most of it	Can do it	Can do it very well	
CHARACTERISTICS	**1**	**2**	**3**	**4**	**COMMENTS**
1. Originality: Is able to be different or interpret differently than others. Or/or both Originality: Invents new and unique ways to produce artworks.					
2. Representational: Shows greater facility with the 'true to life' appearance level.					
3. Visual Memory: Possesses a richer store of images and ideas through retaining impressions of items 'seen' (observed).					
4. Observation: Ability to see the unusual, what others may overlook.					
5. Technical Skill: Has advanced technical ability in art medium.					
6. Problem Solving: Ability to design and make and resolve problems.					
7. Colour: Shows skill in selecting and applying colour.					
8. Imagination: Uses ideas, feelings, experiences and fantasies in an imaginative way.					
9. Media: Is advanced in the use of media, techniques and equipment.					

10. Structure: Is able to facilitate the underlying artistic structure.					
11. (Artist) model: Is able to use the ideas of others and extend them.					
12. Motivation: Has ability to change and respond to different situations.					
13. Self critical: Strives for perfection and excellence.					
14. Evaluation: Ability to evaluate own and other's work. Or Evaluation: Ability to talk constructively about own or other's work.					
15. Development: In advanced stages or moving quickly through stages of learning.					
16. Participation: Personal satisfaction from involvement in visual art activities.					
17. Concentration: Ability to be involved for long periods of time on visual art activities.					
18. Resources: Can source equipment, pencils, paints, books.					
19. Skill: Children or others who recognise their talents.					
Scoring:					
1. Total the number of 3's and record here.					
2. Total the numbers of 4's and record here.					
3. Add the weighted scores to give the total.					

Appendix K:

First Modification of Teacher Observation Profile for Identifying Gifted and Talented Children In the Visual Arts

Date: _____ Students Name: _____ Class/Year: _____ Age: _____ Teacher: _____	CRITERIA				
	Attempts the task	Can do most of it	Can do it	Can do it very well	
CHARACTERISTICS	1	2	3	4	**COMMENTS**
1. **Originality**: Is able to be different or interpret differently than others.					
2. **Realistic**: Shows greater facility with the 'true to life' appearance of subject matter.					
3. **Visual Memory**: Possesses a richer store of images and ideas through retaining impressions.					
4. **Observation**: Ability to see the unusual, what others may overlook.					
5. **Technical Skill**: Has advanced technical ability in an art medium.					
6. **Problem Solving**: Has innovative approaches to problem solving.					
7. **Colour**: Is able to achieve colour subtleties, contrasts and integration of colour.					
8. **Imagination**: Uses ideas, feelings, experiences and fantasies in an imaginative way.					
9. **Media**: Is advanced in the use of media, techniques and equipment.					
TOTAL SCORE OF 3's and 4's					

	Attempts the task	Can do most of it	Can do it	Can do it very well	
	1	2	3	4	
10. **Design**: Is quick to see patterns and relationships.					
11. **Communication**: Easily grasps picture making concepts of space, composition, movement, etc.					
12. **Knowledge**: Is able to respond to the ideas of others and extend them.					
13. **Independence**: Prefers to work independently.					
14. **Self criticism**: Strives for perfection and excellence.					
15. **Concentration**: Ability to be involved for long periods of time on visual art activities.					
16. **Self-Determination**: Expresses ideas, preferences and opinions forthrightly.					
17. **Evaluation**: Ability to evaluate about own or other's work, constructively.					
18. **Development**: Jumps stages in learning or accelerates through stages.					
19. **Personal Satisfaction**: From involvement in visual art activities.					
20. **Resources**: Can source equipment, pencils, paints, books.					
Scoring:					
1. Total the number of 3's and record here.					
2. Total the numbers of 4's and record here.					
3. Add the weighted scores to give the total.					

Appendix L:

Second Modification of Teacher Observation Profile for Identifying Gifted and Talented Children In the Visual Arts

Date: _____ Students Name: _____ Class/Year: _____ Age: Years: _____ Months: _____ Teacher: _____	CRITERIA			
	Occasionally	Usually	Exceptional	
CHARACTERISTICS	1	2	3	**COMMENTS**
1. **Originality**: Is able to be different or interpret differently than others.				
2. **Realistic**: Shows the 'true to life' appearance of subject matter.				
3. **Visual Memory**: Possesses a store of images and ideas.				
4. **Observation**: Ability to see the unusual, what others may overlook.				
5. **Technical Skill**: Shows technical ability in an art medium.				
6. **Problem Solving**: Has innovative approaches to solving problems.				
7. **Colour**: Is able to achieve colour subtleties, contrasts and integration of colour.				
8. **Imagination**: Is inventive with subject matter.				
9. **Media**: Receptive to media, techniques and equipment.				

	Occasionally	Usually	Exceptional	
	1	2	3	
10. **Composition**: Understands the arrangement of picture-making and design skills, i.e. shape, texture, space, movement etc.				
11. **Response**: Is able to articulate the ideas of others and extend them.				
12. **Independence**: Able to work independently.				
13. **Self criticism**: Strives for perfection and excellence.				
14. **Concentration**: Ability to be involved for long periods of time on visual art activities.				
15. **Evaluation**: Ability to evaluate own or other's work.				
16. **Development**: Accelerates through stages of learning.				
17. **Personal Satisfaction**: From involvement in visual art activities.				
Scoring: Add the total number of ticks and record in each column.				
Record the total of column 2 here and x by 2.		X 2	=	
Record the total for column 3 here and x by 3.		X 3	=	
Add the totals for column 2 and 3 together and record here.				

APPENDIX M:

A Scale to Measure the Variation in Attitude Between the Three Groupings which Formed the Professional Panel

Key:

L	Like it	**P**	Probably
D.L	Did not like it	**P.N**	Probably not
D.U	Difficult to understand		
E	Exclude		

GROUP 1	TEACHER EDUCATORS			GROUP 2	TEACHER PRACTIONERS		GROUP 3	TRAINEE TEACHER
	62% = 11/18 Responses			84% = 15/18 Responses			100% = 22/22 Responses	
2	L 10	DL 1		L 14	DL 1		L 22	
3	L 7	DL 4		L 11	DL 4		L 17	DL 5
4	L 8	DL 3		L 14	DL 1		L 20	DL 2
5	L 5	DL 6		L 6	DL 9		L 20	DL 2
6	L 8	DL 3		L 12	DL 3		L 20	DL 2
7	L 7	DL 4		L 13	DL 2		L 14	DL 8
8	L 7	DL 4		L 14	DL 1		L 22	
9.1	L 7	DU 4		L 13	DU 2		L 20	DU 2
9.2	L 9	DU 2		L 11	DL 3	E1	L 22	
9.3	L 9	DU 2		L8	DU 6	E1	L 15	DU 7
9.4	L 7	DU 3	E 1	L 12	DU 3		L 21	DU 1
9.5	L 9	DU 1	E 1	L14	DU 1		L19	DU 3
9.6	L 9	DU 1	E 1	L 9	DU 3	E 3	L 22	
9.7	L 8	DU 2	E 1	L 12	DU 3		L 22	
9.8	L 8	DU 2	E 1	L 14	DU 1		L 22	
9.9	L 7	DU 2	E 2	L 11	DU 1	E 1	L 22	
9.10	L 6	DU 3	E 2	L 12	DU 3		L 22	
9.11	L 7	DU 3	E 1	L 11	DU 3	E 1	L 18	DU 3
9.12	L 10		E 1	L 12		E 3	L 22	
9.13	L 7	DU 1	E 3	L 13	DU 1	E1	L 22	
9.14	L 10		E 1	L 12		E 3	L 21	DU 1
9.15	L 8	DU 2	E 1	L 15			L 21	DU 1
9.16	L 8	DU 2	E 1	L 15			L 21	DU 1
9.17	L 7	DU 1	E 2	L 15			L 22	
10	P 7		PN 3	P 13		PN 2	P 20	PN 2
11	P 8		PN 3	P 13		PN 2	P 21	PN 1
11.1	P 8		PN 3	P 13		PN 2	P 11	PN 11
12	P 7		PN 4	P 13		PN 2	P 9	PN 13

Appendix N:

Third Modification of

TEACHER OBSERVATION PROFILE FOR Gifted and Talented Children in the Visual Arts

Date: _____ Student Name: _____ Class/Year: _____ Age: Years: _____ Months: _____ Teacher: _____	QUALITY			Comments
	Average	Above Average	Exceptional	
CHARACTERISTICS 1. **Originality**: Is able to be different or interpret differently from others.				
2. **Visual Memory**: Possesses a store of images and ideas.				
3. **Visual Awareness**: Is able to see the unusual, what others may overlook.				
4. **Imagination**: Is inventive with subject matter.				
5. **Response**: Is able to demonstrate the ideas of others and extend them.				
6. **Evaluation**: Is able to appraise their own and other's work.				
7. **Composition**: Understands the arrangement and elements of picture-making and design skills, i.e. shape, texture, space, movement etc.				
8. **Colour Awareness**: Is able to compose and achieve subtleties and contrasts when mixing colour.				
9. **Technical Skill**: Shows a technical facility in a visual art medium.				

	Average	Above Average	Exceptional	
10. **Media Usage**: Has facility with media, techniques and equipment.				
11. **Problem Solving**: Has innovative approaches to solving problems in visual arts.				
12. **Development**: Accelerates through stages of learning.				
13. **Self Criticism**: Strives for perfection and excellence.				
14. **Independence**: Is able to work independently.				
15. **Concentration**: Is able to be involved for periods of time on visual art activities.				
16. **Personal Satisfaction**: Gains satisfaction from involvement in visual art activities.				

Appendix O:

The Table of Contents Setting Out Each Child with a Profile to Identify Their Characteristics.

Number of child	Visual Art characteristics	General characteristics	Total points of above average and exceptional characteristics	Age of child
27	3	5	16	5
28	7	4	10	5
29	5	3	8	5
30*	9	5	23	6
31	7	4	12	5
32	4	3	7	6
33	8	6	20	8
34	9	6	20	8
35	3	4	7	9
36	4	2	6	9
37	5	5	10	9
38	8	5	17	8
39	3	4	10	9
40	3	4	9	10
41	2	2	4	10
42	4	5	14	9
43	3	3	7	9
44	5	0	7	10
45	4	5	11	10
46	1	2	4	11
47	1	4	5	12
48	1	0	1	12
49	2	3	5	10
50	1	4	5	11
51	3	3	6	11
52	11	6	20	13
53*	11	6	28	13
54*	11	6	30	13
55*	11	6	25	13
56	11	6	21	12
57	1	3	4	11
58	11	6	20	9
59	4	2	6	8
60	11	6	19	9
61	11	5	16	10
62*	11	6	22	10
63	11	6	18	10
64	9	3	11	9
65	9	5	20	9
66*	10	6	22	11
67	10	6	19	10
68*	10	6	26	11
69	1	0	1	13
70	2	1	3	12
71	0	0	0	11
72	3	5	10	12
73	1	5	6	12
74	5	6	13	13
75	3	3	6	11
76	5	4	16	11
77*	6	5	22	5
78	8	4	21	5

79	6	4	10	5
80	6	5	18	5
81	8	5	18	5
82*	8	5	23	5
83*	8	6	28	7
84*	7	6	24	7
85	8	6	18	8
86*	8	6	26	8
87	6	5	11	8
88	5	3	10	7
89	2	0	2	7
90	7	6	19	7
91	6	6	12	8
92	6	5	18	6
93	5	5	14	8
94*	8	6	28	8
95*	8	6	27	8
96	8	6	19	7
97*	8	6	23	8
98*	8	6	28	8
99	6	5	16	9
100	6	4	13	10
101	8	5	19	12
102	9	6	19	12
103	9	2	12	12
104	9	5	17	13
105	9	5	18	12
106	8	6	15	12
107	9	6	19	12

Appendix P:
The Modifications Showing the Development of the Characteristics

The formation of the observational tool	**1st modification** The first changes to the observational tool.	**2nd modification** The observational tool used in the pilot school.	**3rd modification** The observational tool that went to the professional panel.	**The observational tool that was used in the trial schools**
1 Originality	1 Originality	1 Originality	1 Originality	1 Originality
2 Representational	2 Representational	2 Realistic	2 Realistic	2 Visual Memory
3 Visual Memory	3 Visual Memory	3 Visual Memory	3 Visual Memory	3 Visual Awareness
4 Observation	4 Observation	4 Observation	4 Observation	4 Imagination
5 Technical Skill	5 Technical Skill	5 Technical Skill	5 Technical Skill	5 Response
6 Problem Solving	6 Problem Solving	6 Problem Solving	6 Problem Solving	6 Evaluation
7 Colour	7 Colour	7 Colour	7 Composition	7 Composition
8 Imagination	8 Imagination	8 Imagination	8 Colour	8 Colour Awareness
9 Media	9 Media	9 Media	9 Imagination	9 Technical Skill
10 Structure	Design	10 Design	10 Media	10 Media Usage
11 Artist Model	10 Structure	11 Communication	11 Response	11 Problem Solving
12 Motivation	11 Artist Model	12 Knowledge	12 Independence	12 Development
13 Self-critical	12 Motivation	13 Independence	13 Self-criticism	13 Self-criticism
14 Evaluation	Independence	14 Self-criticism	14 Concentration	14 Independence
15 Development	13 Self-critical	15 Concentration	15 Evaluation	15 Concentration
16 Participation	14 Evaluation	16 Self-Determination	16 Personal Satisfaction	16 Personal Satisfaction
17 Concentration	15 Development	17 Evaluation	17 Development	
18 Resources	Self-Determination	18 Development		
19 Skill	16 Participation	19 Personal Satisfaction		
	17 Concentration	20 Resources		
	18 Resources			
	19 Skill			

Appendix Q:

The final Teacher Observation Profile for Gifted and Talented Children in the Visual Arts

Date: _____ Student Name: _____ Class/Year: _____ Age: Years: _____ Months: _____ Teacher: _____	QUALITY			Comments
	Average	Above Average	Exceptional	
CHARACTERISTICS 1. **Originality**: Is able to be different or interpret differently from others.				
2. **Visual Memory**: Possesses a store of images and ideas.				
3. **Visual Awareness**: Is able to see the unusual, what others may overlook.				
4. **Imagination**: Is inventive with subject matter.				
5. **Response**: Is able to demonstrate the ideas of others and extend them.				
6. **Evaluation**: Is able to appraise their own and other's work.				
7. **Composition**: Understands the arrangement and elements of picture-making and design skills, i.e. shape, texture, space, movement etc.				
8. **Colour Awareness**: Is able to compose and achieve subtleties and contrasts when mixing colour.				
9. **Technical Skill**: Shows a technical facility in a visual art medium.				

	Average	Above Average	Exceptional	
10. **Media Usage**: Has facility with media, techniques and equipment.				
11. **Problem Solving**: Has innovative approaches to solving problems in visual arts.				
12. **Self Criticism**: Strives for perfection and excellence.				
13. **Independence**: Is able to work independently.				
14. **Concentration**: Is able to be involved for periods of time on visual art activities.				
15. **Personal Satisfaction**: Gains satisfaction from involvement in visual art activities.				