A methodological framework for observation drawing: empowering middle childhood Visual Arts learners with visual literacy skills

by

Leana Pretorius

Submitted in full requirements for the degree

Magister Educationis

in the

Department of Humanities Education

Faculty of Education

University of Pretoria

Supervisor: Professor R. Evans

August 2015

To those who still believe that they cannot draw

There is only one right way to draw…physical contact with all sorts of objects through all the senses

Kimon Nicholaides (1892-1938)

ACKNOWLEDGEMENTS

I trusted in God and in Him alone

I wish to thank:

- My parents, Philip and Rachel Scholl, for their unwavering support, prayers and faith in me;
- Anouk, my daughter, for your patience, positive influence and inspiration;
- Maison, my four-legged companion through all the days and nights of work;
- Family and friends for support, encouragement and understanding;
- The eight participants who kept coming back to complete the data collection, even during the holidays;
- My colleagues and principal of the school for your support and understanding over the years;
- Prof Irma Eloff, Michelle Finestone, Jenny Beukes and the information specialists of the University of Pretoria who supported me;
- Peter Binsbergen for his academic contribution and initial guidance;
- Last, but not least, Prof Rinelle Evans for the privilege of her “constructivist” guidance and her inspiring, “Keep walking”.

DECLARATION

I declare that "**A methodological framework for observation drawing: Empowering middle-childhood visual arts learners with visual literacy skills**" is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

_____ _____

Leana Pretorius Date

ETHICS CLEARANCE CERTIFICATE

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Education

RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE	CLEARANCE NUMBER : HU 13/11/04
DEGREE AND PROJECT	MEd A methological framework for observation drawing: empowering middle childhood visual arts learners with visual literacy skills
INVESTIGATOR(S)	Leana Pretorius
DEPARTMENT	Humanities Education
DATE CONSIDERED	19 June 2015
DECISION OF THE COMMITTEE	APPROVED

Please note:

For Masters applications, ethical clearance is valid for 2 years

For PhD applications, ethical clearance is valid for 3 years.

CHAIRPERSON OF ETHICS COMMITTEE: Prof Liesel Ebersöhn

DATE: 19 June 2015

CC: Jeannie Beukes
Liesel Ebersöhn
Prof R Evans

This ethical clearance certificate is issued subject to the following condition:

1. It remains the students' responsibility to ensure that all the necessary forms for informed consent are kept for future queries.

Please quote the clearance number in all enquiries.

TABLE OF CONTENT

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS

ABET	Adult Basic Education and Training
ABR	Arts-based research
CAPS	Curriculum and Assessment Policy Statements
DoE	Department of Education
ECD	Early Childhood Development
GET	General Education and Training
IP	Intermediate Phase
HE	Higher Education
L-mode	Left mode
FET	Further Education and Training
FP	Foundation Phase
OBE	Outcomes-based Education
NCS	National Curriculum Statements
R-mode	Right mode
RNCS	Revised National Curriculum Statement
SP	Senior Phase

LIST OF APPENDICES

ABSTRACT

Against the background of Western art education, realistic drawing lost its position of power in the early 20th century. The concept "child art" was introduced which led to extensive research being conducted into the natural patterns of development and self-expression. Realistic drawing was perceived as rigid and as stifling creativity (Holt, 1979). Drawing forms the basic skill for the subject Visual Arts, yet middle childhood learners often lack the skill to draw realistically. This defined the research questions for this inquiry: How do observation drawing techniques, as an intervention, affect the drawing competence of middle childhood learners? How can the findings of the afore-mentioned question serve to inform a methodological framework for observation drawing? Edwards' (1982) cognitive–shift model which hypothesises that drawing performance can be enhanced by inhibiting left brain involvement in the task was used as the conceptual framework for this study.

This study was qualitative in nature and placed within arts-based research design, which involves the use of visuals as data. To stimulate the study, Piaget's cognitive development theory was used as theoretical framework. The framework was grounded in constructivism and valued student learning.

The study took place in a South African classroom. Participants in this study were 13 middle childhood learners who believed that they had no talent for art. The participants completed a pre-intervention questionnaire involving two unmediated drawings which were evaluated according to the theory of drawing development stages, hypothesised by Sully in 1885. Observation drawing techniques were administered as intervention during five studio drawing sessions. The main findings justified Edwards' claim that nearly anyone can learn to draw using these techniques. Comparing the *before* and *after* drawings, the results suggested that observation drawing techniques facilitated learning to draw as all the participants improved noticeably. The findings informed a drawing methodology which serves the need for direct instruction in drawing and perceptual skills to empower Visual Arts learners with artistic and visual literacy.

Keywords

Drawing developmental stages, observation drawing, perceptual skills, Visual Arts Education, visual literacy**.**

CHAPTER 1

OVERVIEW OF THE STUDY

1.1 Introduction

> "*How important are the visual arts in our society? I feel strongly that the visual arts are of vast and incalculable importance. Of course, I could be prejudiced. I am visual art*."
>
> Kermit the frog (Hume, 2010, p. 2).

"I cannot draw!" is a regular response when a request for a simple drawing is made to a group of middle childhood learners. Even grown-ups render childlike representations when requested to draw. Furthermore, not being able to draw is often the hidden secret of many an art teacher. Drawing is a method of creating images, sketches and illustrations by making marks on a surface with pointed drawing tools (Hume, 2010, p. 4). Whatever the medium, the fundamental principle of drawing is to observe and then to sketch the lines.

Dantzic (1999, p. 19) refers to drawing as the "power of pure line without colour". According to Edwards, (1993, p. 4) drawing is an interpretation of the world through compositional or arrangement choices and accurately illustrating form, light and shadows with the object as source of information. The ability to draw realistically is often revered and admired. However, regardless of natural ability, all prominent artists in the history of art had to learn how to draw. In order to draw realistically, subject matter should depict the exact form of the object observed. It is difficult to draw what we "see" because we see and remember much less than we think we do and we often do not look carefully enough. By intentionally slowing down, we can teach ourselves to look and observe with greater awareness.

No educator ever taught me to draw. My primary school art education involved many arts and crafts activities, colouring in, working with clay, paper mâché, tracing, copying from examples and working with various media. It was only much later that I learnt how to draw by drawing from life. Drawing from life is a process of recording perceptions, while keeping the eyes on the object, as the only source of information. Intelligence can be cultivated through the symbolic interpretation of objects when drawing. According to Inhelder & Piaget, 1969 (cited by Wachs, 1981), cognition is grounded in sensory experience. Drawing is also a means of extending the boundaries of the memory (Mayo, 2012, p. 76). Nicholaides, an art teacher in the 1920s, encouraged the use of the senses in the drawing process, especially the perception of movement. He advised his students to project

themselves into what they saw by identifying with what the model was 'doing', emphasising the importance of looking with greater awareness in order to project their perceptions accurately to paper.

The act of drawing is the expression of ideas and perceptions in coordinating mind, eye and hand (Dantzic, 1999, p. 27). We use "the hand" to record, question and direct our thought processes. When putting down our thoughts on paper, we add meaning and make sense of what we see, whether real or imaginary. Making marks on paper as an expression of thought is a good example of using the imagination. By accurately recording our observations, we develop our ability for abstract thinking, leaving behind stereotypical responses.

Drawing is an effective tool for abstract inquiry. However, words or verbal language gets in the way of abstract tasks like drawing. Kantrowitz (2012) believes that abstract tasks, such as decision making, problem solving and analogical thinking, are disturbed by verbalisation. This is confirmed by the cognitive-shift theory of Edwards (1982) who professes that drawing can be enhanced by inhibiting left brain involvement in a task. Drawing enables the drawer to see and comprehend and depict that which is non-verbal. Kantrowitz (2012) explains that while it is easy to say someone has a large nose it is not easy to describe in words the position of the nose in relation to the other facial features. Art is often considered a "fun" subject or a context where real learning does not take place (Edens & Potter, 2001, p. 215). For the subject of Visual Arts to take its rightful place in the school curriculum, the importance of direct instruction of perceptual skills, developed through drawing should receive greater recognition.

Literature reveals several gaps that could be addressed in Visual Arts education. Individual studies in the arts are to contribute to a wider platform of understanding in areas, such as the short and long term outcomes of learning in the arts. Research could explore which kinds of art learning experiences lead to positive outcomes in the cognitive, social and emotional development of the child. My research focused on the effect of observation drawing, as intervention, on the drawing competence of 13 middle childhood Visual Arts learners in a South African classroom. The objective was to inform a drawing methodology to serve the needs of Visual Arts Educators.

My study involved investigating the South African Visual Arts policy; the techniques of observation drawing; the perceptual skills underpinning the cognitive-shift model of Edwards (1982); the drawing developmental stages, coined by Sully in 1895; drawing and cognition; and the intrinsic motivation principle of creativity in the development of skills. I framed the study in Piaget's cognitive development theory. The optometric view of Piaget's theory in the treatment of learning-related visual problems and the prominent role vision played in his studies in the development of

intelligence greatly defined and stimulated my study in terms of data collection, data analysis and findings.

1.2 Rationale

As an educator at a large, multi-cultural urban primary school in South Africa, my responsibilities included the instruction of the subject Visual Arts. During my 18 years of teaching this subject, I observed that only a small percentage of learners at the end of their primary school education, could present an artwork of worth. They demonstrated poor levels of intrinsic motivation and confidence when drawing tasks were requested. Compared to the levels achieved in reading, writing and mathematics, drawing skills, for the most part, lagged far behind.

Progression in an instructional setting can be defined as increased competence in skill (DoE, 2002, p. 7). However, in spite of their apparent insufficient progress in drawing skills, many learners expressed a strong desire and yearning to draw. Pursuing the matter they told me that no educator had ever taught them *how to draw*. Literature reveals that the origin of underachievement can often be traced back to the earlier years of children's art education (Bamford, 2008, p.18, Edwards, 1993, p. 1; Holt, 1979, p. 96). Accordng to Holt, (1979), learners in the early years draw with natural enthusiasm and they are often left to draw on their own by unenthusiastic teachers or carers. General educators, with limited art education backgrounds are often assigned to teach Visual Arts in the primary school (Clark, 1998, p. 23; Kowalchuk & Stone, 2000, p. 30). Many of these educators cannot draw either. They engage the learners in various arts and crafts activities, copy drawing, teach them the elements and purposes of art, and explain the colour wheel - all activities prescribed by the Visual Arts curriculum - and yet the learners end up expressing frustration, claiming that they do not know how to draw.

Searching for answers, I studied the National Visual Arts Curriculum and discovered a gap: The omission of a prescribed drawing methodology. The focus seems to be on arts and craft design. Drawing skills are mentioned but the curriculum fails to indicate or prescribe *how* drawing should be taught. CAPS for the Foundation Phase (grades 1 to 3) clearly illustrates this as it vaguely suggests the following: "There is no 'right' way to draw and learners should be encouraged to *express themselves "freely*" (CAPS, 2011, p. 10). Research conducted by Drake & Winner (2012, p. 2) contradicts this statement. They argue that free expression should be "skills-based", and that natural talent should be nurtured and developed, starting at an early age. In the grade 4 Visual Arts curriculum, drawing is referred to as encouraging learners "to use their pencils *"richly*" (CAPS, 2011, p. 13). Observation drawing - a method of learning how to draw, is mentioned in the grade 6 and 7 Visual Arts curriculum when 2-D and 3-D representations are required but the emphasis is on the

elements of art (CAPS, 2011, p. 13). Furthermore, lessons in the CAPS work schedules repeatedly remind the educator to start with revising the "art elements". Art elements refer to the components used to create an artwork, namely line, shape, form, colour, texture, and the value or tone, that is, lightness and darkness. The important role of developing observation and perceptual skills by exploring the object with your eyes, measuring and blind contour drawing, the basic principle of observation drawing, is not mentioned or explained.

Observation drawing is not recognised as essential in learning how to draw, in many curricula worldwide, but considered optional. In my study, I aimed to find evidence of the effectiveness of this methodology in the teaching and learning of drawing. Bartel (2008, p. 17) observes that some educators seem to believe that if they teach the elements of art, a modern idea developed during the 1930s, learners will develop the skill of drawing. These elements have value in art education but they are too limiting and simplistic to facilitate the development of drawing skills. Without drawing skills, minimum outcomes and standards as prescribed by CAPS (2011) are difficult to attain. At grade 6 and 7 level, basic skills in all subjects should have been achieved, including art. The gap observed between "reality" and the ideals of the art curriculum of nurturing artistic talent through the development of skills and knowledge, initiated my research project.

Another challenge encountered in Visual Art is time allocation, the lack of space and resources. The art curriculum allows only 30 minutes per week for the practice of Visual Arts in the Intermediate Phase. Furthermore, there is a shortage of art materials and adequate space for art activities in most schools.

Adding to this dilemma is the non-interventionist view of Western art education, which led to the concept of "child art". This concept appeared early in the 20th century when art was greatly influenced by an increased popular and professional interest in psychology. This new trend led to a significant amount of research done into the "natural patterns of the development" in children's drawings. Consequently, primary school art education, according to (Bamford, 2008, p. 18; Holt, 1979, p. 96), was reduced to the mere facilitation of natural development and the encouragement of self-expression. Jolley & Zhang, (2012, p. 40) warn that the "non-interventionist" view of Western art education, coupled with the challenges encountered in terms of time allocation, lack of adequate space and resources, resulting in art education being subordinate to every other subject, hold the danger of it being deprived of substance.

In 2008 the Gauteng Department of Education issued Grade 4 to 7, arts educators with *The Arts & Culture Teacher's Companion Book*, as part of the Quality Improvement, Development Support and

Upliftment Programme (DoE, 2008a, pp. 1-61). In dealing with Intermediate Phase learners (9 to 12 years old) attention is focused on the developmental level that the learners have reached in art making. I quote, “For some learners drawing realistically comes naturally or instinctively, but for most it does not and learners need help in technique otherwise they will simply stop trying to make a representation of an object.” (When referring to “technique”, *the different art elements are implied).* This statement is then contradicted by the following: “During this frustrating time for learners, we need to be providing a wide variety of opportunities to create ‘artworks’. There is *more to art than drawing*…“. The focus is on arts and craft design to provide a “positive, creative experience for everyone”. Focused attention on the important instruction of drawing skills is overlooked. There is a marked decline in skills development between the early years’ of art instruction and the middle-school years. In too many cases, basic drawing and perception skills are not mastered. I am of the opinion that the education system, Higher Education training institutions and ultimately the educator are to blame for the poor performance of Art Education as a subject in equipping learners with basic drawing skills as *foundation* for visual communication and artistic literacy.

Often, when requested to draw, grown-ups render childlike representations. In a study on observation drawing, Bartel (2003, pp. 4, 13) argues that many adults draw like 9 to 12 year olds. This is the stage where the child experiences a crisis of confidence. Schematic generalisation no longer satisfies. Edwards (1982) believes that children at this age develop a passion for realistic drawing because they are trying to “learn how to *see”.* If their drawings do not come out “right” – do not look realistic, they become discouraged. Often teachers do not know how to help either. They might then resort to crafts projects that seem safer to cause “less distress”. As a result many children do not learn how to draw during their formative years.

Although drawing is a teachable skill, only a few children will discover this skill on their own if they do not receive direct instruction (Bartel, 2003; Edwards 1982; Lowenfeld & Brittain, 1970; Matthews, 2001; Flannery & Watson, 1991). The reason that only a few children will discover the skill of drawing on their own, explains why so many grown-ups believe that they have no talent for art. Even though they are mechanically perfectly able to draw, previously stored knowledge, which is useful in other contexts, prevents their seeing the drawing matter, as it is. If verbal knowledge overwhelms visual perception, “incorrect” drawing results (Edwards 1982, p. 74; Kantrowitz, 2012).

Assessing the effectiveness of observation drawing techniques to inform a drawing methodology, and the timeous implementation of these techniques from pre-school onwards might thus serve to prevent a middle childhood crisis.

1.3 Research question

I am of the opinion that poor drawing skills might be the result of learners never having been taught how to draw, often because educators cannot draw themselves and also because drawing techniques are not taught as part of the Visual Arts curriculum. The main objectives of my study were to examine the effect of observation drawing techniques on the drawing competence of middle childhood Visual Arts learners, who believed that they have not talent for art and to use the finding to inform a methodological framework for drawing.

The following main research question was formulated:

How do observation drawing techniques, used as intervention, affect the drawing competence of middle childhood Visual Arts learners?

The following sub-question supported the main question:

How can the findings of the above question serve the needs of Visual Arts Education by informing a methodological framework for observation drawing?

The extent to which these research questions were answered by my study, is explained in Chapter 5.

1.4 Presumptions

Based on the conceptual and theoretical framework of my study the following presumptions or beliefs are assumed:

Cognitive shift presumption:	It is presumed that the left hemisphere of the brain is involved in analytical and logical tasks and the right hemisphere in visual spatial tasks. It is thus presumed that drawing is a right hemisphere task and that drawing performance can be enhanced by inhibiting left brain involvement in the task (Edwards,1982; Kantrowitz, 2012).
Creative presumption:	It is presumed that direct instruction in drawing techniques and perceptual skills will enhance and not stifle creativity in visual representation

	(Edwards, 1982; Edwards, 1987, p. 7; Jolley & Zhang, 2012, p. 40; Lowenfeld & Brittain, 1970, pp. 206, 207; Read, 1958, p. 56).
Presumption of accurate/realistic interpretation:	It is presumed that the eye is probing the form of the object through observation. This process is enabled by a measuring technique, also referred to as “sighting”, with the intent to obtain correct relational proportions in order to render a realistic interpretation of an object (Edwards, 1982).
Presumption of ‘drawing skills for all’:	It is presumed that nearly everybody can learn how to draw through the practice of blind contour drawing, practised by keeping the eye fixed on the object, as the only source of information, looking at the drawing only when placing the pencil at a new starting point (Edwards, 1982).
Perception and visual literacy presumption:	It is presumed that through practising realistic drawing by means of observation of life objects, the drawer will develop perceptual skills, creative problem solving and critical thinking skills which in turn stimulate higher order thinking and visual and artistic literacy skills (Eden & Potter, 2001; Edwards, 1982; Murr & Williams, 1988, Piaget, 1964).
Cognitive development presumption:	It is presumed that visualisation is the construction of an internal symbol without the presence of the visual object. Visual perception, on the other hand, can be deceiving for it is limited to the direct interpretation of the incoming photic energy. Perception in art, however, is based on reality, and on knowledge of the

structural elements of an object. The challenge for the child is to use both practical and theoretical knowledge to internally construct his/her own knowledge. This process stimulates high-order thinking and intellectual reasoning (Mayo, 2012; Piaget, 1964; Wach, 1981).

1.5 Delimitations of the study

The delimitations of my study were based on the assumption that grade 6 and 7 learners have the cognitive and mechanical ability to master the perceptual skills underlying drawing skills. I administered observation drawing techniques as intervention and as remediation of perceptual skills that were not conceptualised at foundational level. I assumed that if these perceptual skills were internalised and mastered, it would have reflected in their “everyday” drawings. The following delimitations limited the scope and defined the boundaries of my research:

The findings of this study could be tranferable to teachers who: (a) teach Visual Arts (b) in public or private schools and not just on primary school level (c) worldwide and (d) who have mastered the skills of observation drawing well enough to teach it.

I employed the following two criteria for enrolment in my study:

(1) I limited the population of my study and chose only grade 6 and 7 Visual Arts learners to participate in the research. The three topics for Visual Arts are visual literacy and creating in 2D and 3D (DoE, 2005, p. 42). Drawing and perceptual skills form the basic skills for the subject, Visual Arts (Edwards, 1982, p. 3; Kurczynski, 2004, p. 93). The development and mastery of these basic and crucial skills could be achieved through constant practice and repetition over time and by the end of primary school, the basic skills of a subject should have been mastered. Learners, not having mastered the perceptual skills essential to drawing, by the end of primary school, have not met basic skills in Visual Arts. Most of the grade 6 and 7 population I taught, fell into this category. However, art is labour and time-intensive and requires a focused, individual approach in order to achieve the desired or maximum results. I therefore, chose only 13 learners to participate in my study.
(2) Learners who attended private art classes were not selected and included in the sample. This might have affected the outcome of the intervention, as I challenged Edwards (1982) claim that

nearly anybody can learn how to draw from practising observation drawing techniques. I had therefore purposefully chosen a population that believed they had no talent for art but expressed a desire to learn how to draw.

Another limitation in scope was my choice to use only one medium for the drawings, namely pencil. I used H3 or H4 drawing pencils and added a few charcoal pencils to accentuate shadow and add texture where required (see Figure 10).

Having selected a qualitative approach as the methodology to conduct the research set another boundary. This approach is anti-positivist and naturalistic. Drawing upon phenomenologist philosophers, I followed a narrative-like, artistic critical form of disclosure to report and interpret my findings. I further chose arts-based research, which allows for visuals as data and as the form of investigating and reporting. This form of reporting could best present my data to illustrate the effect of observation drawing techniques, which could not be effected choosing a quantitative approach.

1.6 Terminology

The following definitions of terms, listed alphabetically were considered key to the interpretation of this study and defined as they were used in this study:

- **Arts-based research (ABR):** This is a recent methodological genre that includes the use of visuals as data and as a form of investigation and reporting (Barone & Eisner, 2012).
- **Blind contour drawing:** Blind contour drawing, the eyes remain fixed on the object and not on the drawing sheet while drawing.
- **Contour drawing:** A contour drawing is a line drawing of a shape or form.
- **Creative Arts**: In the South African context, Creative Arts is a school subject, previously known as Arts and Culture. It provides exposure to and the study of a range of art forms, including: Dance, Drama (Performing Arts), Music and Visual Arts.
- **Creativity:** Creativity is an imaginative activity, fashioned to produce concrete outcomes that are both original and of value.
- **Developmental stages in drawing:** The five stages of development noted in children's drawings, start from the scribbling stage, the stage of symbols, the schematic stage; the stage of complexity and the stage of realism.
- **Fine arts:** Fine arts usually refer to the traditional, Western European notion of the "high arts" (e.g. painting, sculpture, architecture, poetry, music).

- **Intrinsic motivation:** Intrinsic motivation is an engagement in a task for reasons inherent to the task itself such as interest or enjoyment, rather than external reasons, such as monetary rewards.
- **Middle childhood:** For the purpose of the study, middle childhood refers to 11 to 13 year old children, also referred to as "primary school leavers".
- **Observation drawing:** Observation drawing is the close observation of an object, followed by an attempt to replicate it accurately.
- **Perception skills:** Perception skills lay the foundation for all future development and learning to acquire information about the surroundings, environment or a situation through the use of the senses (CAPS, 2011, p. 12)
- **Realistic/naturalistic drawing:** A realistic drawing is an accurate representation of an object.
- **Three-dimensional (3D):** A three-dimensional representation has a rounded form, that is height, breadth and volume. Free standing sculptures and pottery are examples of 3-D media.
- **Two dimensional (2D):** A two-dimensional form has length and breadth and is created on a flat surface, such as paper. Drawing, painting and printmaking are examples of 2-D media.
- **Visual literacy:** Visual literacy is the ability to transform thoughts and information into images. It is a set of skills ranging from simple identification to complex interpretation. This includes aspects of cognition such as personal association, questioning, speculating, analysing, fact-finding and categorising. (Bamford, 2008; DoE, 2008b).

1.7 Synopsis of research design and methodology

A full description of the research design and methodology is presented in Chapter 3.

1.7.1 Research approach

This study is interpretivist, naturalistic and qualitative in nature. Qualitative research could be defined as a "systematic empirical inquiry into meaning" and encompasses many approaches (Shank, 2006, p. 6). Qualitative research is a scientific method allowing researchers to test theories and hypothesis in an objective way and to reproduce the findings to others. Theories are "patterns of meaning, substantiated by data" (Shank, 2006, p. 7). Data are therefore described in terms of being *rich, thick, textured, insightful* or *illuminative*. Qualitative research implies: fieldwork, research in natural settings, observational data and understanding people in their day to day surroundings (Shank, 2006, p. 7). In this study I made use of visual material, that is, drawings, to establish the

effects of a drawing methodology on the drawing skills of grade 6 and 7 learners. The visual representations of the participants were illuminated by textual descriptions to ensure rich data sets from which to make deductions.

1.7.2 Research design

The study is placed within the arts-based research design, a form of qualitative research and implies the use of visuals as data as a form of *investigation* and *reporting*. Viewers or readers are to take another look at certain aspects of the social world that were previously taken for granted, for example, the view that drawing *is*, or *is not* a teachable skill, to stimulate academic debate outside the walls of the academy (Barone & Eisner, 2012).

1.7.3 Conceptual framework

I used Edward's model to inform a methodological framework for observation drawing, as the conceptual framework for the study. Edwards (1982) developed a cognitive–shift model for teaching drawing; theorising drawing performance can be enhanced by inhibiting left brain involvement in the task. This assists in the intentional, cognitive shift from the denotative to the structural aspects of the object when drawing (Edwards, 1987, p. 27; Hall & Thomson, 2007, p. 319; McMahon, 2002, p. 45). Denotative description of an object is stored in the memory. It exhibits what the drawers know about the object, and not what they see. Consequently the drawer will make a schematic drawing. Children under the age of eight or nine, typically draw a schematised interpretation of an object (Matthews, 2001, p. 16). Schematic generalisations and representations are usually far from what an object really looks like.

1.7.4 Theoretical framework

To frame the learning experience in visual representation, I used Piaget's theory on cognitive development, focusing on the autonomous character of the aesthetic experience. Vision played a prominent role in his studies on the development of intelligence. Of particular use in my study is the optometric view or philosophy of Piaget's theory in the treatment of learning-related visual problems.

1.7.5 Participants and research site

Thirteen candidates in grade 6 and 7 were purposefully selected to participate in the research. The participants varied in skill but most of them believed that they had no talent for art. All expressed a desire to learn how to draw. The research site was a multi-cultural English primary school situated in the east of Pretoria, in the province of Gauteng, South Africa. The selection criteria and site are discussed in detail in Chapter 3.

1.7.6 Data collection tools

The research was introduced by a questionnaire in order to collect background information and two unmediated drawings, pre-intervention (Appendix G). The assessment of work in arts-based research requires the use of *criteria* to facilitate judgement of the significance *or* value of what has been created. Within the larger framework of these criteria I designed a rubric to assess the art works (see Chapter 3, Table 4). After examining the elements of the learners' drawings as presented in the rubric, I described and recorded changes in their drawing skills before and after intervention in Chapter 4. I was a complete observer and made use of a checklist to guide my observations during the drawing sessions (see Appendix H). The data collection period ended, with the participants completing a questionnaire to reflect on their drawing experiences (Appendix I).

1.7.7 Data collection strategy

The data collection period spanned *five* weeks, for an hour once per week. Owing to the fact that progression in drawing is *cyclic* rather that *linear*, meaning a learner can improve drastically instead of gradually (CAPS, 2011, p. 8; Edwards, 1982, p. 2), a period of five weeks was deemed sufficient. Data collection started by participants completing a small-scale questionnaire, which included two unmediated pre-intervention drawings. (see Appendix G). The unmediated drawings were classified in terms of their drawing developmental stages to determine their current drawing stages. The pre-intervention drawings can be seen in Chapter 3 and in Appendix K and Appendix L.

The first of the five drawing sessions, post-intervention, started with a PowerPoint presentation, facilitated by a research assistant. Participants received direct instruction in drawing skills and drew from observation to present their first set of five drawings after intervention. They continued to practise the drawing techniques in the remaining four, one-hour sessions, drawing objects set up for the purpose. A full description of the objects drawn in each session, as well as the methodology used is provided in Chapter 3. I made use of an observation checklist, adapted from Edwards (1982) to record my observations during the drawing sessions (see Appendix H). The data collection ended with a reflection questionnaire. Participants completed a multiple-choice questionnaire to record their feelings and perceptions after intervention (see Appendix I).

1.8 Ethical considerations

The research was conducted in accordance with the international conventions and requirements of the University of Pretoria, for ethical research implicating human subjects. Letters requesting permission for conducting the research were written to the Gauteng Department of Education, the

governing body chairman and the principal of the school, explaining the nature, purpose and scope of the study.

In line with the requirements “to do no harm” and to “promote social justice”, I identified the main areas of moral issues in dealing with minors and planned for consent and assent in writing according to the given guidelines (Cohen, Manion & Morrison, 2006). The purpose of the study and the data collection process were explained to these participants. Letters were written to request their assent and signed consent was obtained from the parents or caregivers, legally responsible for them. Signed permission was also obtained to use photos where their faces could be identified. They were informed of their rights in participating in the study and given all the facts that could have influenced their decisions, including voluntary participation and the right to withdraw at any time. I protected their anonymity in terms of their drawings by suggesting they choose symbols or pictures as identification of their art works. The research commenced once ethical clearance and informed consent had been granted (See Ethical Certificate on page iii)

1.9 Ensuring trustworthiness

I incorporated a variety of strategies to ensure validity. I made use of crystallisation to validate the findings and substantiate the emerging results. I included member checks by returning data to the participants to verify interpretation and my understanding. I integrated observations (findings of the observation checklists are presented in Chapter 4) of the drawing process over the data collection period and consulted and requested the opinion of the research assistant employed, to ensure truthfulness.

1.10 Anticipated research constraints

I was apprehensive about finding and selecting a suitable research assistant, who would be available for the five week period. I therefore spoke to people in the academic community about my need for a suitably qualified person and asked for recommendations. I had several referrals but took a calculated risk in appointing an artist living in a neighbourhood close to me because she was available for the time period and seemed well-qualified to assist me with the task. It was essential for the person I chose to have a good rapport with the learners.

The participants’ time schedule presented another constraint. Of major concern was the participants finding the time, amids academic responsibilities and numerous extra-mural activities to stay committed until the data collection period had reached completion. I justified and explained the importance of their contribution and the vital role it might play in informing a drawing methodology to the benefit of Visual Arts education as a whole, and this possibly helping others to learn how to

draw. I also allowed more participants to participate in the study to circumvent possible drop-outs due to the above constraint.

I was careful to not prematurely or instinctively apply the drawing techniques in the art class before commencing the research due to the impact it could have had on the findings. However, I was bound by the ethical requirements to provide a detailed account of what I had planned. I, therefore, provided sufficient detail in the letters of consent/assent in order for parents and potential participants to make an informed decision and to also encourage their cooperation and support.

Apart from consulting the literature, I spent much thought in planning the instruments to effectively and sufficiently support the analysis and to best assist the findings. Choosing a new methodological genre as research design was a radical decision. Using visuals as data was a challenge because the metaphorical elements could not be measured but had to be presented as evidence, equivalent to scientific research.

1.11 Conclusion

In Chapter 1, I provided a rationale for the study, set out the research questions and gave a brief explanation of the theoretical and conceptual frameworks as well as the methodology approach, underlying the study. I included the delimitations, trustworthiness features, ethical considerations and presumptions, key terminology and methodology on which the study was based on.

The remainder of the study is structured into four more chapters, plus the backmatter. Various documents are appended, including visual data, questionnaires, covering letters and ethical recommendations. The data are organised in the following manner: Chapter 2 presents a literature review that sets the scene for the study. The scene is set against Visual Arts as discipline and involves a discussion on the South African Visual Arts policy, the basic principles of observation drawing, and other concepts to support the data analysis in answer to my research questions. Chapter 3 outlines the methodology, conceptual framework, theoretical framework and research design of the study. I used arts-based research, as the research design, a new genre that emerged the last few decades, which involves visuals as data. The instruments used for collecting the data, the method for selecting participants and the procedures that were followed are described. It also includes the facilitators brief, the ethical considerations and trustworthiness features. Chapter 4 presents the data and interpretation of the data. The data are displayed visually to add to the rich, thick descriptions that allow for the findings to emerge. Included in Chapter 4 is an interpretation and discussion of the major findings as well as the drawing methodology, presented with a Power Point presentation as a teacher's resource pack. Chapter 5 contains a summary, alongside

conclusions drawn and recommendations for the study. The next chapter presents the literature review of the study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter provides a comprehensive review of past literature on drawing and artistic skill to provide an underlying structure of my research problem. My particular concern was the gap – no evidence of a drawing methodology - in the Visual Arts curriculum. Poor achievement observed and experienced in the performance of middle childhood Visual Arts learners initiated this research as it led to my discovery of the gap in the curriculum. I have introduced the literature with a historical overview on South African Visual Arts education, followed by discussions on observation drawing, visual literacy and perception skills. The literature includes overviews on the theory of the drawing development stages and the theory of intrinsic motivation. The role of engagement in the mastery of skills is highlighted. The theoretical framework that framed this study was Piaget's cognitive development theory which focuses on learning-related visual problems.

2.2 The South African Visual Arts policy

In South African schools, after the first democratic election in 1994, an integrated education system was established. The South African government began the process of developing a new curriculum for the school system in 1995. The *Education White Paper on Education and Training,* which began in the final quarter of 1994, was designed to meet the needs of all learners and to accommodate and respect diversity with the purpose of building a nurturing education system to provide the nation with a solid foundation for lifelong learning and development (DoE, 2001, p. 4-53).

In 1997 Outcomes-based Education, also known as Curriculum 2005 was introduced to overcome the curricular divisions of the past. *Curriculum 2005* provided a framework for Early Childhood Development, General Education and Training (Grades R to 9), Further Education and Training (Grades 10 to 12) and Adult Basic Education and Training and was introduced into the Foundation Phase in 1997.

The reasons for the change in education system were the scale of change in the world which brought growth and development of knowledge and technology and the demands of the 21st century that required a higher level of skills and knowledge than required by the existing curriculum. The new curriculum reflected the new values and principles of the Constitution and was greatly politicised (DoE, 2008b, p. 2). The new education system had to accommocate and facilitate the diversed interest and participation of all its people.

However, teachers' concerns about implementation led to a review of the curriculum in 1999. The review of *Curriculum 2005* led to the *Revised National Curriculum,* aimed to strengthen *Curriculum 2005.* However, in 2012, the two *National Curriculum Statements* for Grades R to 9 and Grades 10 to 12 respectively, were combined into a single document, the *National Curriculum and Assessment Policy Statement* Grad*es R to 12* also referred to as *(CAPS) 2011*. A single document was developed to provide guidelines for planning, content and assessment.

Grade 7, the last year of primary school, forms part of the Senior Phase which ends in Grade 9. Grades 8 and 9 form part of the junior high school. The subject Creative Arts, previously known as Arts and Culture in the *General Education and Training* band - the Foundation, Intermediate and Senior Phases - integrates all four domains within the arts: Dance, Performing and Visual arts and Music. In the Intermediate Phase, however, Creative Arts is referred to as Life Skills and include the practice of the four domains as well as Life Orientation and Physical Education. Only four hours per week are allocated for practising Life Skills, which consists of six disciplines. Time allocation for the practice of Visual Arts has been drastically reduced.

In the Senior Phase, Grades 7 to 9, the subject continues as Creative Arts only, but schools have to choose only two of the four domains. If the schools choose two other domains, the learners will not have Visual Arts as a subject in Grades 7 to 9. According to CAPS, (2011), learners in the Intermediate Phase, Grades 4 to 6 have 30 minutes per week for the practice of Visual Arts and the Grade 7s, one hour. This arrangement creates a challenge for the continuation of Visual Arts in Grades 10 to 12. In Grades 10 to 12, the subject continues only as Visual Arts. The Grades 10 to 12 Visual Arts teachers will use the foundation created in the lower grades to further develop artistic knowledge and skills. If the learners did not have Visual Arts in Grades 7 to 9, they will have a poor foundation for Visual Arts in Grades 10 to 12. In turn, Visual Arts in Grades 10 to 12 should provide a foundation for learners to choose from a wide range of specialised Higher Education opportunities and careers such as architecture, design, film and video production, fine art or media studies (DoE, 2003, p. 10).

I identified the following principles of CAPS (2011) which are directly related to my study: Active and critical learning; development of high knowledge and skills; progression in content and context; managing inclusivity to ensure that barriers in the classroom are identified and addressed by all relevant support structures and laying a foundation for art in Grades R to 9 for art practice in Grades 10 to 12. The development of visual literacy should thus start in Grade R.

2.3 What is visual literacy?

Traditionally visual literacy was primarily confined to art classrooms where learners or students learnt how to look at a painting and how to read, analyse and deconstruct the techniques used by the artist. Visual literacy is the ability to read, write, learn, think and solve problems in the visual domain and involves education technology such as mass communication, film or cinema and web and graphic design (Donalyn, 2004, p. 3). Yenawine (1997, p. 2) remarks that there is no instruction in visual literacy either in schools or outside, not even recognition of the fact that "learning to look" is like reading, a process of stages that requires exposure, time and educational intervention.

At a basic level, visual literacy involves the identification of the "elements of art" in an art work. Visual literacy skills include visual reception (careful observation) cognition (understanding in visual learning/literacy), aesthetic appreciation and semiotics (the study of signs and symbols (DoE 2003, p. 13; CAPS 2011, p. 12). Drawing a parallel between literacy in language and visual literacy, Edwards, (1987, p. 203) describes writing and drawing, two important modes of communication as verbal language and visual perception as follows: *Words* in language are the equivalent of *edges* in perception - words define our thoughts; edges provide *form* and also define the picture. *Context* in language is equivalent to *negative space* in perception - context describes the setting/background in the same way that negative space points to the space beyond an object. G*rammar and language* rules and relationships and proportions in perspective are the third equivalent components. Grammar and language rules add structure to sentences in the same way that relationships and proportion add perspective in visual representations.

It is important to distinguish between visual communication and visual literacy. Visual communication is a process of sending and decoding messages using images. Visual literacy involves cognition - the skills that are applied to construct meaning from visual images (Bamford, 2003, p. 1). A visually literate person should thus be able to successfully decode and interpret visual messages and to *encode* and *create* meaningful visual communication. The message here is the understanding that a text or an image is manipulated, in other words, purposefully constructed or coded. Our task in education is to equip learners with the necessary thinking tools to make sense of any manipulated messages, by helping them to interpret visual codes, constructed from a calculated viewpoint and with a communicative purpose in mind. Instead of being a passive consumer, the "literate" learner should be able to go beyond the literalised image to see with developed awareness the social meaning that divides them from the real world (Duffelmeyer & Ellertson, 2013, pp. 2, 3). Drawing is described as a universal language (Kurczynski, 2004, p. 93). It is not just an important artistic skill, but also a vital mode of communication and as such, crucial in the development of

meaning making and visual literacy skills (Bamford, 2003, p. 3). Without a prescribed drawing methodology and with Visual Arts as a subject receiving less prominence in schools, the importance of drawing as a mode of communication in the development of visual literacy is not fully comprehended.

Furthermore, relating to determining the dominate modes of representation, in a quantitative study conducted by Perlmutter & Myers (1975, pp. 215-219) on the visual and verbal memory in young children, it was found that four year olds represent *visual* material at least as competently as they do *verbal* material. The data on the relative effectiveness of young children's representation of visual and verbal material are equivocal. Moreover, although adults are assumed to represent information in a predominately symbolic manner, it has been consistently demonstrated that they remember pictures better than words. Three recognition memory lists, differing in test mode, namely, *visual* only, *verbal* only and *combined* visual-verbal, performances were statistically compared and a dual-processing conceptualisation of memory in four year olds was suggested.

Comparing visual and verbal language, my study indicates their equally significant dominance as modes of representation. Considering the evidence provided of equal importance between verbal and visual communication, Visual Arts should be afforded a much greater role in the curriculum for maximum benefit of the artistic and aesthetic development of the child. This might mean investigating the principles on which school curriculum designs are based. Buhler, 1930, (quoted by Edwards, 1982, p. 77), states that language has spoilt drawing and then swallowed it up completely. Buhler explains that drawings are graphic accounts of essentially verbal processes. As essentially verbal education gains dominance, the child abandons his or her graphic efforts and relies almost entirely on words. This further emphasises the need for empowering learners with artistic and visual literacy skills.

2.4 The role of drawing in a contemporary visual market

The visual artwork encompasses two broad and quite different outputs - the 'commercial' and the 'contemporary'. Commercial fine arts involve traditional media and techniques being applied to the representation of subject matter. These works have a largely decorative function and intersect with interior design and craft. The 'contemporary' visual arts involves a *wider* variety of media and techniques and arise from both the history of art, visual culture studies as well as the wider social, cultural and political realm. The contemporary style is a unique, recognisable "signature" style and

includes installation, performance art and digital art but may also include a variety of 'traditional' methods such as painting, sculpture and print making (Edwards, 1982, p. 199; DoE, 2005, p. 42).

One could ask whether a time-consuming and highly-skilled activity such as classic, traditional drawing is still relevant in a contemporary visual market? I believe that traditional drawing, as part of an universal tradition will always find a place in the contemporary art industry. Gudridge (1983, p. 663) refers to the persistence of classical style as such, in music, art and literature, and states that there is a classical style which finds virtue and expresses itself in terms of "order, permanence, balance and in being universal". Complementary to the above, the virtue and beauty of classical style as *visua*l medium is the idea that we "make art" from raw material. In my study, I intended to use a classical traditional drawing method, in response to observed challenges in the drawing development of middle childhood learners, as a means to improve traditional *and* contemporary artistic and visual literacy skills to stimulate the internal construction of visual perceptual skills.

Has drawing died? Kurczynski (2004, pp. 93-110) explains that historically, the value of drawing was defined by freedom from all economic, social and political constraints in terms of autonomy and freedom of expression. Drawing now responds to a situation where this definition of freedom is diminishing. As the digital media become more sophisticated, direct expression appears to be under threat because economically, the market of neo-liberal ideology determines what art is exhibited. Furthermore, art is pushed towards the "monumental, spectacular and entertaining" (Kurczynski (2004, p. 98). I argue that drawing is still alive and will not die. The market for drawing has in fact greatly expanded. Kurczynsky (2004, p. 97) reviews the enormous surge of interest in drawing in contemporary art discourses over the past 15 years. She observes that drawing is often perceived as more authentic than other expressive media because it is viewed, as closer to the creative instinct of the artist's mind and part of universal tradition. The line is prominent in traditional, classical drawing. By contrast, contemporary drawing is not dependent on the "line" but resists categorisation. It finds significance in hybridity, with multiple possibilities to choose from, such as visual symbols, graffiti, linguistic and visual codes, maps and diagrams. It also includes photographic work, dance diagrams, collage, installation, digital files and vinyl wall text (Kurczynsky, 2004, p. 97). According to Kurczynsky contemporary drawing could be defined in opposition to what drawing was in the academic and modernist tradition by describing drawing as an "anti-medium" to balance the search for authenticity and simplicity in a technological world. Contemporary art thus does not replace classic traditional drawing in the art class but co-exists and unites to express, create and promote the development of artisitic literacy.

Observation drawing, as classical traditional drawing methodology can be defined as a *technique for learning basic drawing skills*, done by close observation of an object and then drawing directly from the structural elements of the object (see Figure 1 and 2). Observation drawing is practised to record subject matter, to extend personal visual language and to achieve accuracy or similarity to the observed object or person in the real world. Edwards (1982) theorises that drawing performance can be enhanced by inhibiting left brain involvement in the task. Recognised specialisations of the brain, according to this model, are the involvement of the left hemisphere in language tasks and the right hemisphere in visual spatial tasks. The left brain deals with stimuli in a sequential, analytical and logical fashion. The right hemisphere deals with stimuli in a more holistic, integrative and intuitive style. Given such evidence, drawing has been discussed as a right hemisphere task. Edwards professes a cognitive shift to *right hemisphere processing* to produce accurate drawing. For children at about the age of nine and older, unrealistic and 'stereotypical' symbols become inadequate and they yearn to draw realistically.

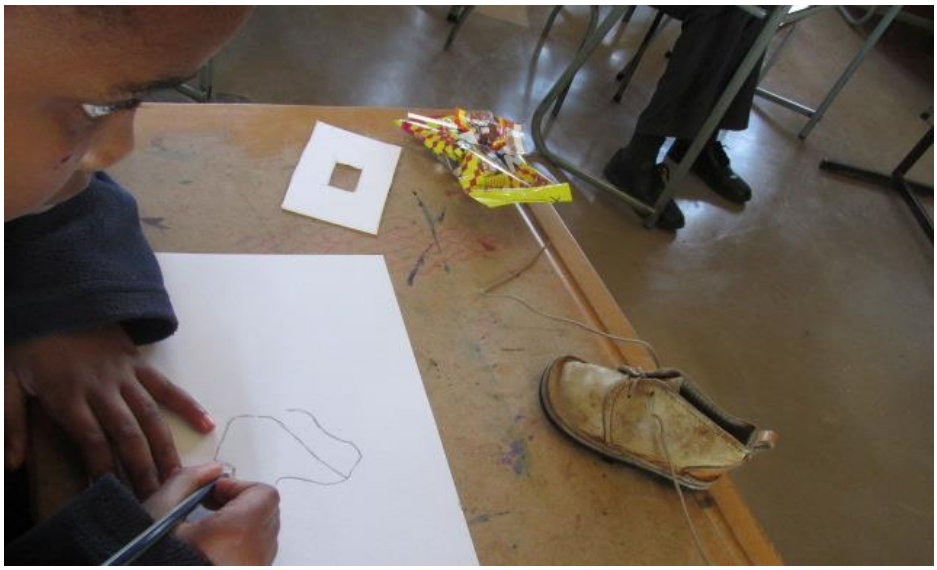


Figure 1 Observation drawing.

Edwards (1982, p. 3) claims that, familiarity with these drawing rules will simplify and facilitate learning how to draw and that nearly anyone can learn how to draw with this method. Some techniques suggested by Edwards to enhance the cognitive shift to right hemisphere processing in order to produce more accurate drawings, are drawing the adjacent spaces around objects and not the objects themselves and drawing an "inverted stimulus" (drawing an image upside down). The left hemisphere has problems with mirror images. It cannot deal with upside-down images because it cannot be named. This gives the visual-spatial or r-mode the opportunity to process the visual information without the interference of the domineering left brain.

In a study on realistic drawing, Scott (1983, p. 129) states that teaching realistic drawing is either discouraged or avoided and seldom discussed in the art education context. An overview of the literature reveals the scholarly belief that the drawing task should be adapted in terms of expectations involving the drawing developmental stages (see theory of drawing developmental below) and that the restrictive requirements of a special technique such as realistic drawing might stifle creativity (Edwards, 1987, p. 7; Jolley & Zhang, 2012, p. 40; Lowenfeld & Brittain, 1970, pp. 206, 207; Read, 1958, p. 56). Scott (1983, p. 129) reasons that teaching realistic drawing to children of nine or older is no more restrictive for art than what learning proper grammar is for creative writing. Drawing technique as non-verbal communication tool or *visual grammar* should therefore enhance creativity and self-expression in visual representation.

Accoridng to McMahon (2002, p. 42) drawing is inspired by three sources: observation, memory or experience and imagination. To draw from memory, one must be drawing from a mental description of the object other than the structural. This will result in a stereotypical (fixed mental) and schematic drawing and will not render a realistic or faithful interpretation of the object or scene. Drawing from imagination, is drawing from the memory of the structural description of an image. The problem is that drawing from memory or from imagined image is extremely difficult, even for a professional artist. How difficult it is could be demonstrated by writing words on the board like dog, hand, or nose and then asking leaners to draw them. As in language, perceptual skills require the acquisition of rules. Perceptual rules include different techniques for developing composition, attaining accuracy, exploring personal ideas and training the eye. Observing directly requires a focused attitude to using the eye to probe the form of the subject. It is therefore highly effective for the development of concentration. Observation drawing techniques involve the following: measuring/sighting[1], tone, shading, comparing sizes, pose figure drawing, blind contour drawing[2], using blinder cards[3], recording texture, vanishing points[4], perspective, composition, and making use of viewfinders[5] (Edwards, 1982, pp. 81-186). Different drawing techniques[6] include the use of: line, tone, shading,

[1]Realistic drawing, achieved through observation drawing, depends heavily on proportional correctness which is obtained through a measuring technique, also referred to as sighting. It requires training the eye to see objects in relational proportions.

[2] Blind contour drawing is done by looking intently at the edge of an object, but never looking at the paper while the pencil moves. We call it blind because we are not allowed to look at the drawing paper while the pencil moves.

[3] Blinders cards are used on the pencils to assist in blind contour drawing. It is used as helpers on pencils.

[4] Vanishing points: Objects that are close to the viewer appear larger than those further away, even though it is known that they are the same size.

[5] Viewfinder: Used by artists to view and select content for two-dimensional compositions. It can simplify the task by isolating the important part of the subject being observed. It is a sheet of paper with a hole in it.

[6] Technique: The specific/planned way in which artists use materials, tools and equipment.

blending[7], stipple,[8] composition[9], tonal/colour graduation and mixed media. For media, one could either draw in pencil, pen, ink, paint, charcoal and mixed media[10] or design, making use of digital media. Drawings are represented in sketches,[11] drawing life models or from studio set-ups, portrait studies, still life[12], or landscapes (National Specification in Art and Design, 2010, pp. 1-4).

In a study conducted on observation drawing, Bartel (2000, p. 3) found, that Japan is probably the only country with a nationally prescribed Art Curriculum, that requires working from observation from a very young age (pre-school and grade one). He found that the Japanese spend about three times as much time, learning art during the first three grades in school, as compared to schools in America and England. Drawing activities also include drawing on the imagination and remembered experience (memory). Japanese children learn to focus on a task for an extended period of time in grade 1. They become aware of details, not by copying an adult example but by attending to good observation. It is apparent that this early attention to extended observation has not harmed their creativity or other education. He makes the assumption that, their early attention to extended observation and focus on a task, provides a link to their astute ability to think and focus in other disciplines. We process information and create our realities by integrating verbal, textual and visual input in order to "get the picture" (Murr & Williams, 1988, p. 417). The reading systems in the Orient crucially depend upon interpreting pictorial materials. Japanese as a language has both a syllabary reading system (Kana) and an ideographic system (Kanji). Their preference for drawing from observation may be rooted in the bilateral and multi-sensory processing the Japanese learn through their language (Bartel 2000, p. 3).

The afore-mentioned practice of observation drawing is in stark contrast with the non-interventionist view of Western art education, dating back to the 1920s and 1930s and the advent of "progressive" education. In reaction to the somewhat rigid academic art instruction of the early 1900s, leaders in

[7] Blending technique: Use round or flat brushes and paint of medium to thick consistency. Use brush strokes. Blend the brush strokes while the while the paint is still wet. The brush strokes should not be visible. Blending can create the illusion of depth on a flat picture plane.

[8] Stipple: When you stipple a surface, you tap a stiff brush or sponge up and down to create many tiny dots of colour.

[9] Composition: The manner in which forms and lines, or objects of an artwork are arranged.

[10.] Mixed media: Various materials combined in visual art products.

[11.] Sketches: Sketches are made to record and idea, just as you make written notes to remember ideas. They are created quickly and never become a finished artwork.

[12.] Still life: Drawings which represent inanimate objects such as flowers, fruit or household articles.

art education decided that teaching children how to draw realistically threatened their “natural creativity” and their ability to “express themselves”, resulting in any deliberate effort to teach drawing being avoided at all cost. I argue against this view and believe that teaching children from a young age to draw from observing life objects will stimulate creativity and will enhance visual perception and artistic skill.

2.5 The fundamental principles of observation drawing

Bartel (2008, p. 1) bases his teaching on the work of Edwards and describes blind contour drawing as the fundamental principle of the practice of observation drawing. Blind contour or *pure* contour drawing is done by looking intently at the edge of an object and not looking at the paper while the pencil moves (see Figure 2). It is called *blind* because we are not allowed to look at the drawing *while* the pencil moves (Bartel, 2008, p. 1; Edwards, 1982, p. 88)). We look at the paper only when placing the pencil at a new starting point. In order to assist in this way of drawing, Bartel (2009) suggests the use of large blinder cards placed on the pencils.

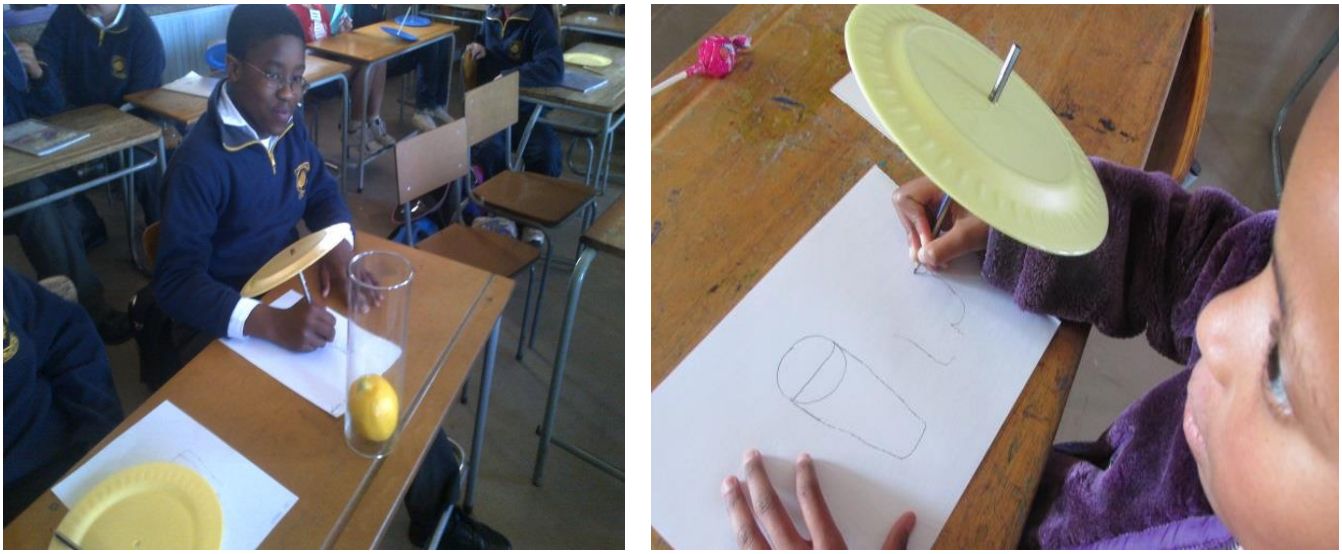


Figure 2 Blind contour drawing and the use of a blinder card.

As adults we are inclined to translate the perceptions of what we see into words or symbols, based on the symbols’ system which we developed during childhood as well as information of objects stored in memory. Importantly, the purpose of blind contour drawing is to bypass this symbol system. Not being allowed to look at the drawing or naming and categorising an object, will force the focus from the left to the right mode of perceiving. In blind contour drawing the concern is for rich, deep, intuitive recordings of perception with the purpose of steering away from stereotypical mark

making, processed in the left mode of perception. Blind contour drawing assists in making the right brain more assertive and aware of the object under observation by balancing the left brain's tendency to standardise and simplify everything by naming or categorising it (Edwards, 1982, pp. 87, 88). Bartel and Edwards claim that nearly everybody can improve their drawing ability with this method. However, realistic drawing is perceived by Edwards, (1982, p. 7) as "a means to an end." She argues that realistic drawing is a stage to be passed through, ideally around age 10 to 12 in the ultimate pursuit for self-expression.

In order to attain proportional correctness, a measuring technique referred to as "sighting" is applied. (see Figure 3 below). Sighting, a method of drawing by eye, meaning you take a "sight", is used to determine the relative sizes of lengths and widths of forms. It is a process of comparing the relationships of angles, shapes and spaces. Sighting is visual perspective, with the visual information being perceived directly by the eye and drawn *without* revision. It is sufficiently accurate for most drawing tasks. The only tool required is a pencil. The pencil is held vertically, parallel to the eyes at arm's length, with the elbows locked, to measure the relative sizes of objects (Edwards, 1982).

Figure 3 The measuring technique.

A viewfinder is a perceptual aid used to bind the perception of the "whole" or the gestalt - the positive and the negative spaces - within a format. The use of a viewfinder is demonstrated by a participant on the next page (see Figure 4). It is used to practise seeing negative spaces by establishing an edge to the space around the forms or by framing the image (Edwards, 1982). One

eye is closed while gazing at the negative space and then waiting until the negative space is seen as a shape.

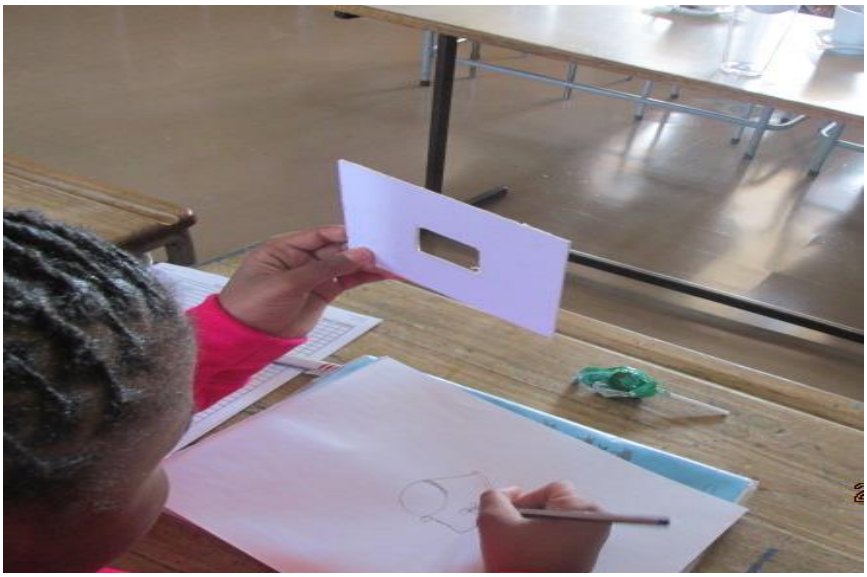


Figure 4 The use of a viewfinder.

According to Edwards (1982, p. 8) the value of achieving realistic drawing skills has three important aspects: Realistic drawing develops perception skills. Achieving accuracy in representation also instils confidence in creative ability, not gained in any other way. Lastly, it facilitates a shift to a new mode of thinking that will develop the potential for insightful, creative problem solving and the development of critical thinking, which in turn stimulate higher order thinking and visual literacy skills. Instruction of classic traditional drawing, that is, drawing from life, from pre-school phase onwards, might therefore bring us closer to the ideal of holistic education.

2.6 Perceptual skills

Observation plays a fundamental role in the construction of perceptual skills. Along with skills such as describing, interpreting and communication, observation can be taught. To transform an experience in order to learn from it, we first have to internalise what we have observed. Learning thus, ensues through the development of insight which is essential for personal and intellectual growth as well as the development of skill (Boudreau, Cassell & Fuks, 2008, p. 2; O'Farell & Meban, 2003, p. 8). Edwards (1987, p. 127) has selected the few fundamental perceptual skills for observation, meaning "skilful *seeing",* needed to effectively process visual information. These visual perceptual skills relating to drawing skills are: The perception of edges, spaces, relationships, light and shadows and the perception of the whole, or *gestalt*.

- Perceiving edges (Where does one thing end and another begin?)
- Perceiving negative space. (The spaces around or behind the objects can help define the objects).
- Perceiving relationships and proportions. (Sighting – a method of "drawing by eye"). Sighting is useful in the perception of relationships and has to do with the sighting of angles as constants, and the sighting of proportions and relationships of the lengths and widths of form. A pencil may be used as sighting tool (Edwards, 1982, p. 123).
- Perceiving lights and shadows. (What is visible and what is in the shadows? The shadows accentuate the light).
- Perceiving the *gestalt* – the unique set of qualities. *Gestalt* is also known as the "law of simplicity" or the "law of pragnanz" and means "organised whole".
- *Gestalt* theorists like, Max Wertheimer, Wolfgang Kohler, Kurt Koffka and Kurt Lewin were the first group of psychologists to systematically study perceptual organisation around the 1920s in Germany. These theorists followed the basic principle that the whole is greater than the sum of its parts. In other words, the whole (a picture) carried a different and altogether greater meaning than its individual components (paint, canvas, brush). In viewing the "whole", a cognitive process takes place – the mind makes a leap from comprehending the parts, to realising the whole. We visually and psychologically attempt to make order out of chaos to create harmony or structure from seemingly disconnected bits of information. The visual world is so complex that the mind has developed strategies for coping with the confusion. The mind, therefore, tries to find the simplest solution to a problem (Behrens, 2004; Edwards, 1982).

According to Edwards (1982, p. 3), drawing from observation, not only promotes perceptual skills but also allows self-expression and interpretation. Edwards also claims that in the same way that children need instruction to read properly, they will also *not* learn to draw without instruction.

The theory behind the drawing stages is explained by Matthews (2001, p. 14) who states that the early drawings of children are the consequences of the development of conceptualisation, language and logicomathematical processing which is thought to "corrupt" an initially pure, optical or retinal image. Children's drawing development is therefore interpreted, suggesting that the "visually realistic" image is finally to be *recovered* through a series of developmental "stages". This hypothesis is still the dominant model underlying theories of visual representation and influence many approaches to the teaching of drawing up to this day (Matthews, 2001, p. 14). This model of development presented on the next page, originally hypothsised by Sully in 1895, is the "distorted

hybrid" of the work of Luquet (1927) and Piaget (1956) (Matthews, 2001, p. 15). It was also adapted by Lowenfeld (1970) and Edwards (1982).

2.7 The developmental stages of drawing

The theory of drawing development stages, hypothesised by Sully in 1895, is presented in the following section. The various stages of development identified in children's drawings are as follow:

Table 1

Drawing development stages

Age	**Categorisation**
- 3 years	(1) *Scribbling stage*
3 – 4 years	(2) *Stage of symbols / Pre-schematic stage*
5 – 6 years	(3) *Schematic stage*
9 – 10 years	(4) *Stage of complexity / Dawning realism*
11 years	(5) *Stage of realism*

Adapted from Sully (1895).

Stage 1: The *scribbling stage/pre-schematic:* This stage represents primitive representations of isolated characteristics, such as making marks on paper or random scribbles are an attempt to portray the real world.

Stage 2: The *stage of symbols:* During this stage the conscious creation of form is taking place. The first attempt is a person, usually with a circle for the head and two vertical lines for legs. Pictures start to tell a story – all human children making the basic discovery of art. Discovery of symbols, adjustments of basic form to represent 'something out there'.

Stage 3: *The schematic stage*: Detailed representations demonstrate growing awareness of the world by children drawing their special images over and over again, memorising them and adding details. The drawings are mostly direct or side views. Children are striving for more detail in art work, hoping by this means to achieve greater realism. They attempt to show depth. The child arrives at a "schema", a definite way of portraying an object. The schema represents the child's active knowledge of the subject

- usually a landscape. Children repeat the same image, drawing them over and over, memorising them, adding details and using adjustments to basic forms (Edwards, 1982, p. 65).

Stage 4: The *stage of complexity/pre-realistic – The beginning of realism*: At stage 4, the passion for realism or naturalism is in full bloom. The drawing - not reflecting realism, is an indication of the information not being obtained from the object, but from stored memory or the imagination of the child. It is hypothesised that previously stored knowledge of objects prevents them from seeing the object as it is (Edwards, 1982, p. 75). Schematic generalisation at this stage, no longer serves to depict reality. Children try for more detail in their art, hoping by this means to achieve realism or naturalism. Drawings become differentiated by sex. Boys draw cars, war scenes, cartoon figures, block letters, piercing daggers and girls draw flowers with vases, waterfalls, fashion models with big hair and eyelashes (Edwards, 1982, p. 72)

Stage 5: The *stage of realism*: The crisis or "perspective" representation period in which children strive towards optical realism and begin to draw favourite subjects over and over again, attempting to *perfect* the image. At this stage they become increasingly critical of their drawings. This stage marks the end of art as spontaneous activity where children would often abandon art as expressive activity because they simply "could not learn how to draw" (Edwards, 1982, pp. 62–76; Lowenfeld & Brittain, 1970, p. 267; Read, 1958, pp. 118, 135).

An example of a drawing done during Stage 4: The *stage of complexity/pre-realistic – The beginning of realism.*

Figure 5 A stereotypical drawing of a 12 year old participant.

The participant, who drew the picture in Figure 5, had not been taught how to draw. The individual parts of the cat are simplified but recognisable. This is a natural, typical representation created from the *memory* that the learner has of the structural elements of the subject material and not from direct observation of the object.

Matthews (2001, p. 13), challenges one of the most basic assumptions about the development of representations by children, namely the claim that representations are developed through a *gradual* adaptation made by the child to "visual reality", as theorised in the drawing developmental stages. The study investigates how Chinese children between the ages two and six years, in a Singaporean nursery, draw a solid sphere and cube placed before them. In their spontaneous drawings, young children seldom draw objects from observation. Many, especially in Western art education, will question this methodology as the vast majority of the literature on children's drawings is based on the assumption that the goal of visual representation is to make a "visually realistic" picture of an object as seen from a *single* viewpoint, which constitutes pictures in linear perspective. However, many of the two to six year old children tried to represent the objects. Analyses of both finished drawings and video-recordings of the drawing process suggest that children use powerful modes of representation which are little understood by many adults. These modes have been concealed by assumptions about visual representation and human vision and are presented as grand theories in traditional research. In contrast to existing theory, analysis reveals that the process of drawing is rather a dialectical relationship in which the child records his or her *own thinking* in relation to events and objects over time. This strengthen the argument for drawing instruction from a young age onwards. Matthews (2001, p. 43), in conclusion, suggests that it is crucial to identify and support children's representational intentions and strategies if we are to teach drawing appropriately and in ways which assist, rather than undermine their development and learning.

According to Flannery & Watson (1991, p. 66) the developmental stages in drawing have not been the focus of much empirical investigation. In their study on children's perceived competence in drawing during the middle childhood years (realistic stage), findings reveal that competence relates to the *development* of drawing skills. Free, unmediated drawings done by the children were rated by judges for their level of realism, the ability to please and originality. Greater perceived competence in drawings was related to higher levels of realism and originality in drawings as well as greater perceived competence in domains with visual-spatial components, like mathematics and acting. This period is marked by the older child's desire to draw realistically. If their drawings do not match reality children may think that their skills do not meet standards and some children may even stop drawing altogether. Flannery & Watson (1991, p. 66) therefore suggests a greater emphasis on the *timely* development of foundational drawing skills to alleviate and challenge this middle childhood

crisis in drawing. There might be other factors contributing to the perceived incompetency in children's drawings but more research is recommended.

2.8 Drawing under scientific investigation

A study by Willats (1983, p. 78) describes the attitude of the public towards visual arts as ambivalent. He claims, on the one hand, that the root cause of the contradictory attitudes towards the visual arts is the mistaken belief that drawing is a somewhat low-level mental activity which depends primarily on the skill of copying. On the other hand, it is also thought of as a magical process, which would wither under scientific investigation. This may be because although it looks as if it should be easy to draw, instead it turns out to be incredibly difficult. Willats (1982, p. 78) states that the lack of any well-founded intellectual framework for the arts is to blame for explaining the subject and its importance.

Technically, learning to draw depends on complex perceptual rules. Katter & Stewart, (2002, pp. 236-237); Pipes, (2003, pp. 90-105) explain the rules, which include spatial relationships, linear perspective, isometric and orthogonal and vertical oblique projection These various projection systems are members of the mathematical family, with perspective as the most complex system. Orthogonal projection (involving straight angles: one–point perspectives, ideal for straight lines, such as railway lines, long straight roads with telephone poles on either side) is the simplest system. Vertical oblique (slanting) projection is when vertical directions across the picture surface are used to stand for both vertical and back-to-front directions in the real world. The oblique angle is usually 45 degrees. It is most commonly used by children. Children begin with the simpler systems and work through towards perspective (intuitive recognition). Perspective is a way of introducing 'distortions' (third dimensions) into drawings to symbolise or simulate reality. Linear perspective is a method of portraying objects on a flat surface so that the dimensions shrink with distance. Depth can be portrayed through the use of texture. As the object moves further away it becomes more compressed and busy, causing the eye to focus primarily on objects drawn in the foreground. The idea behind perspective is to "put things in their proper place" (Pipes, 2001, p. 90).

The significant role that art plays in perceptual and projection systems requires greater recognition as is evident in the study by Mitchelmore (1980). In many areas of mathematics, it is of great value to be able to visualise and represent three-dimensional configurations and to comprehend the geometrical relationships between the various parts of a figure. Many three-dimensional configurations are based on the various right prisms and pyramids, including the cylinder and the cone. The difficulties some learners have in drawing these figures are recognised by many

mathematics teachers but have received little attention from researchers. Mitchelmore (1980, p. 83) blames this on the lack of an adequate framework for evaluating students' drawings. However, in spite of substantial evidence of the autonomy of Visual Art as a discipline, the skill of drawing remains marginal or 'unseen' (Kurczynski, 2004, p. 97).

Edwards (1987, pp. 33-37) explanation that the source of difficulty lies in the *nature* of drawings, is still relevant today. Diagrams and problems presented in words or numbers, are "knowledge poor" and logical compared to drawings, which are "information rich" and usually complex. Drawings are complex due to the metaphorical analogical (emotional state) thinking embedded in the drawing process. The ability to draw requires perceptual skills, which entail that, apart from semantic knowledge one needs the ability to perceive both the object as it is, and the possible metaphorical (figurative) undertones.

2.9 Drawing and cognition

Several cognitive processes occur during a drawing task in turn which influence learning. According to Winner & Cooper (2000, p. 11), a successful artwork requires cognitive, perceptual and technical skills while promoting disciplined risk-taking, which should transfer across disciplines, indicating a causal link between arts study and academic achievement. In 2008, Winner & Hetland, identified observing, visualising, innovating and reflecting to be beneficial for transfer of learning. Kantrowitz (2012, p. 12) explains that cognition is grounded in sensory experience. Our perceptions, no matter how sure we may feel at a particular moment are therefore, always partial and incomplete. Drawing facilitates the navigation and triangulation of a series of complex thought processes to create an art work. By recording fleeting thoughts and by making them concrete, we record ideas which can be inspected and altered over time (Mayo, 2012, p. 76). We then develop the ability to reflect on and improve our work. Creating a picture or an image therefore enhances our understanding of abstract ideas, imprints concepts and extends our memories, which are conducive to learning.

Edens & Potter (2001, p. 219) assert that cognitive development involves seeing, comparing, classifying, categorising, encoding, storing and retrieving of information. As learners get older, direct perception is downgraded as they rely more on verbal articulation or semantic knowledge to convey meaning. Thus, the purpose of blind contour drawing in observation drawing is to bypass semantic knowledge and to develop the ability to question and direct our thought processes. In making connections and discoveries, we train the brain to engage with the eye and hand (Kantrowitz, 2012). When we observe a drawing, we "see" and "feel" and experience the picture, being fully aware that

it is only marks made on paper. We experience the world through modes of perception with our minds at work.

In 1993, Chappell & Steitz investigated human figure drawings of young children between the ages four to six years and cognitive development. Analyses indicate a correlation between cognitive stage and drawing level. Increased cognitive ability was directly related to increased drawing levels, suggesting children's human figure drawings to be a tool for assessing cognitive levels in young children. Armagan Yildiz, (2012, p. 622) agrees that drawings provide information about children's cognitive development and asserts that drawings, being unique, pure and natural are to be accepted as mirrors that provide information.

2.10 Creativity: Autonomy, mastery and intrinsic motivation

The componential theory of creativity was first articulated by Amabile in 1983 and is one of the major theories of creativity. According to Amabile (2012) the theory in essence encompasses the following social and psychological components: *intrinsic motivation*, *high domain expertise*, *creative thinking* and *high support* for creativity. The *intrinsic motivation principle of creativity* is about people feeling motivated primarily by the interest, satisfaction and challenge of the work itself. *Domain-relevant skills* include knowledge, expertise, technical skills, intelligence and innovation. *Creativity-relevant processes* include a cognitive style and personality characteristics conducive to independence, risk-taking and adopting new perceptions on problems. *The social environment* can stimulate creativity through offering a positive challenge and autonomy, in other words, the freedom of carrying out tasks.

According to Amabile (1989) creativity thus functions as a component of motivation. In the work environment most of us operate under a combination of intrinsic and extrinsic motivation. However, what matters for creativity, is that intrinsic motivation is stronger than extrinsic motivation. In an effort to improve the motivation of learners in drawing and to develop their skill, the art teacher should consciously connect knowledge and understanding with skills (DoE, 2004, p. 55).

In a study on intrinsic motivation, Kover & Worrel (2010, p. 473) define intrinsic motivation, based on the self-determination theory of Deci & Ryan, 1985, as engagement in a task for reasons inherent in the task itself such as interest or enjoyment, rather than for external reasons, such as monetary rewards. Pink, (2009) validates this theory by stating that the "carrots and sticks" way of motivation is out-dated and that a new approach is needed for the 21st century. He made the revolutionary

discovery that external rewards have a negative effect on intrinsic motivation. Current education systems use standardised tests and external rewards or punishment. Learners often have no idea why they are doing what they are doing. It is necessary to show learners the relevance of what they are doing and how it applies to the real world in order to give meaning to what they are learning.

The new approach, according to Pink (2009, p. 204) has three essential elements: autonomy, mastery and purpose. Autonomy is the desire to direct our own lives. Pink defines mastery as the urge to continually improve at something worthwhile, and it involves engagement in a task. Mastery involves pain. Mastery begins with "flow" which can be described as optimal experience, where challenge matches ability. It demands effort and deliberate practice and is achieved gradually, in a step-by- step manner. However, mastery poses a challenge which is simultaneously frustrating *and* rewarding. It is thus important to encourage learners to persist. Purpose is the yearning to do what we do in service of something larger than ourselves. This approach encourages the development of creativity and artistic skill, necessary for self-enrichment and for preparing learners for special careers' training in the arts.

Csikszentmihalyi (1997, p. 3) believes that a special sensory advantage may be responsible for developing an early interest in a specific domain. Csikszentmihalyi states that creativity originates from a genetic disposition for a given domain, meaning that a person whose nervous system is more sensitive to colour and light will have an advantage in painting. A person with a predisposition in a respective domain such as, colour and light will therefore learn more about "colour" and will be perceived as an artistic person. Drake & Winner (2012, p. 1) conducted research and found that outstanding artists and creative people in general, possess an intrinsically motivated "rage to master". This rage is accompanied by the ability to enjoy the process of creation for its own sake.

According to Csikszentmihalyi (1997, p. 5) creativity can be cultivated and the process consists of five steps, namely *preparation; incubation; insight; evaluation* and *elaboration.* These steps are applicable and implemented in the construction of the development of drawing and perceptual skills.

Preparation is (becoming emerged in the issue at hand). *Incubation* - this phase may range from a few hours to several weeks or even longer and is seen as the most creative part. It involves making connections. *Insight* is when the pieces of the puzzle fall together. *Evaluation* is assessing whether the idea is valuable and worth pursuing. Finally, *elaboration* is the hardest part which involves routine work.

2.11 Conclusion

The perception of visual arts as a “fun’ subject, where no real learning is taking place, could be a complicating factor in strengthening the discipline’s position to enhance its perceived value in the instructional setting. It would seem that educators’ own drawing abilities may play a role in the development of drawing skills in Visual Arts learners. Chapter 2 provided an overview of the literature on drawing and perception skills, based on Edwards’ cognitive-shift model. To gain a deeper understanding of the construction of drawing skills, I framed my investigation against Piaget’s theory on cognitive development that knowledge is constructed by the person and does not come from the “object”. Underlying themes, presented in Chapter 4, will be interrogated for the bearing they may have on informing an effective drawing methodology.

Concerning the skill of drawing, I took note of several theorists and provided a literature review for the expectation that drawing may have an impact on the education of learners as a whole. These include: (1) the emphasis of the role of education to nurture the creative capacity of every student in order to create and be creative; (2) developing the potential to become more expressive, confident or critically thinking individuals; (3) the potential of drawing to serve as a pedagogical tool in the teaching of other academic subjects; (4) the development of communication skills, ability to observe, take risks, solve problems and learning through the senses by giving meaning to objects; and (5) higher degree of learning transfer.

The next chapter deals with the research design and methodology, which guided the study in order to provide answers to the research questions.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

A research design makes known a plan for conducting the study. It is a model and justification for establishing the validity of data and inferences drawn from them. The design should be made explicit so that readers can gain insight into how the study was conducted. The research design operates within a discipline, takes into account the purpose of the study and deploys a particular set of strategies (Prosser, 2001). Arts-based research is a visual method for conducting research. However, it is sensitive to traditional methodological concerns and follows a conventional methodology of how and by what criteria data are interpreted. This includes the overall approach and rationale; the research site and sample collection; the researcher's role; data collection methods; analysis strategy; and trustworthiness features. The overarching concern is the trustworthiness of the findings.

3.2 Conceptual framework

I used Betty Edwards' "Drawing on the right side of the brain", cognitive-shift model as a conceptual framework to inform a methodological framework for observation drawing. This drawing method is based on four perceptual skills: Perception of edges, perception of spaces, perception of light and shadow and perception of spatial relationships.

Edwards' way of teaching and learning how to draw is based on the research of Roger W. Sperry, a Nobel Prize winner and psycho-biologist on the functions of the hemispheres of the human brain. Sperry found that the brain uses two different modes of thinking, the one mode being verbal, analytical and sequential and the other visual and perceptual. This forms the framework for observation drawing techniques proposed by Edwards.

Edwards (1982) developed a cognitive–shift model for teaching drawing, theorising that drawing performance could be enhanced by inhibiting left brain involvement in the task. Edwards defines the shift to the right mode as an "apparent suspension" of time; where no attention is paid to the spoken word. Drawing could thus be described as a "wordless" process. The sounds of speech are registered but it is not decoded into meaningful words. Being fully engaged, thinking in *words* appears to be an effort. It is an experience of immense interest, of feeling 'at one', with whatever is concentrated on. Pink (2009), in line with Edwards, postulates that only engagement in a task can

produce mastery. He describes mastery as beginning with a “flow”, a painful process, involving effort and deliberate practice.

I designed a graphic illustration of the conceptual framework that my study is based on, shown in Figure 6 on the next page. The graphic illustration of the framework starts with what I had observed as an alternative state of awareness; a participant *being at one with the work,* illustrating what Edwards describes as a “cognitive shift”. Edwards (1982) claims that a shift to right hemisphere processing, in other words, a shift to a particular way of perceiving, will lead to the internal construction of perceptual skills. Mayo (2012) refers to this construction of knowledge and skill as “transformation from perception to concept”. I used Piaget’s cognitive development theory as the theoretical framework to plan my study. According to Piaget’s theory, a teacher can stimulate the internal construction of the visual-spatial relations that objects have to one another. This could be affected by *changing* the (drawing) task to create a visual challenge. Internal construction is encouraged by the learner then engaging in high-level thinking in the under-developed areas to overcome the visual challenge. Piaget believes that overcoming the visual challenge will lead to intellectual development and an understanding of “reality”.

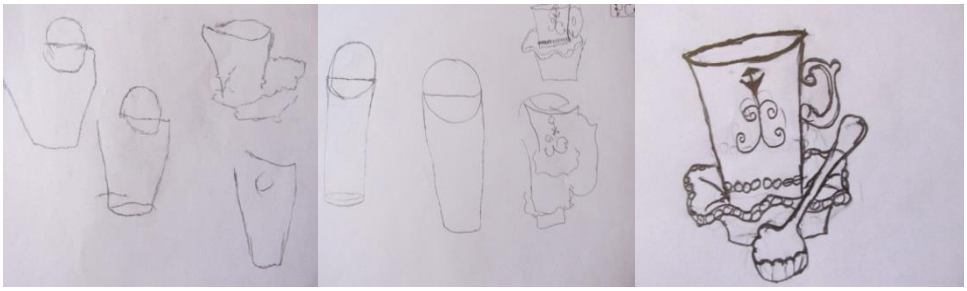
The cognitive shift Edwards is referring to is encouraged by blind contour drawing. I changed the drawing task by introducing blinder cards to the participants to acquaint them with the “new” method of drawing. Blind contour drawing is facilitated by looking intently at the edge of an object and not looking at the drawing sheet while the pencil moves. Once they had mastered the concept, they drew without the blinder cards. I also introduced the use of viewfinders. Viewfinders are used to isolate an object, making the drawer aware of positive and negative space to strengthen the perceptions of edges and spaces. To facilitate the perception of light and shadow they used their pencils to record their observations. They also used their pencils to “sight”, to draw in proportion, and facilitate the perception of spatial relationships..

I designed my conceptual framework on the above premises to inform a methodological framework for observation drawing. The drawing process started with a cognitive shift and ended with concept – “internally constructed drawing and perceptual skills’. Figure 6, on the next page, is a graphic representation of the conceptual framework as discussed above.

1. Intervention tools and techniques: Blinder cards, pencils and view finders to draw shapes and spaces, forcing the focus from left to right mode and "sighting" for correct spatial relationships

2. Cognitive shift: engagement or "flow"

3. Drawing process: Transformation from "perception to concept": Internal construction of knowledge and (realistic drawing) skills



4. Cognition: Development of higher order thinking skills

5. Drawing and perceptual skills

Figure 6 The conceptual framework

3.3 Theoretical framework: Piaget's theory of Cognitive Development

The theoretical framework is the disciplinary orientation that is drawn upon to stimulate the study. The choice of the theoretical framework defined the study in terms of data collection, data analysis and findings. I framed my study in the cognitive developmental theory of Piaget, which is grounded in constructivism and motivated by Piaget's conviction about the autonomous character of the aesthetic experience. Piaget values student-centred learning. Dewey helped reform American education under the premise that students learn best when engaged in activities that reflect their interests and experiences (Hesser, 2009, p. 3). Dewey's premise is echoed by Kover & Worrel (2010), who believe that engagement in a task, for reasons inherent in the task itself, such as enjoyment, promotes intrinsic motivation. Intrinsic motivation plays a vital role in the development of drawing skills.

Cognitive psychologists, such as Piaget (1966) developed learning theories that support Dewey's philosophical premise that learning leads to cognitive development (Hesser, 2009, pp. 1-4). Piaget clarified the need for context in learning, theorising that learning is based on experience that challenges concepts, understood from prior experience. Observation drawing as the proposed methodology challenges the premises of old ways of "seeing".

For Piaget, vision played a prominent role in his studies of the development of intelligence. Almost all his experiments involve vision in some way and the subject's visual thinking often forms the basis for discussion in Piaget's experimental observations and reviews (Inhelder & Piaget 1969, cited by Wachs, 1981, p. 581). For Piaget, perception is part of cognition. Visual perception includes more than the act of seeing. It is visual knowing that is limited to the direct interpretation of the incoming photic energy received from something present. Perception can thus be deceiving. A child with a learning disability, visually perceives *boy* and *yob* as an indistinguishable same. If you visualise your mother's face in her absence, it is an example of visual imagery and also an example of visual knowing without perception. In other words you can have visual knowing without visual perception but you cannot have visual perception without visual knowing. This explains why drawing from the *structural* elements of an object leads to naturalistic and accurate representation.

Perception in art is thus based on knowledge and skills. Visual reality is to know or understand one's own visual world. For Piaget all knowledge, including visual knowledge has an action character and every action modifies reality. By *doing* something we construct our reality. Reality is thus what objects mean to us, how we can use them, how we can fit them into our lives. Reality, however changes as our knowledge and our way of doing things change.

In human development, Piaget discovered that infants' perceptions are part of their actions. Within the next two years the infant will separate his or her actions from the object of the action. This is the beginning of theoretical knowledge, or what Piaget terms the "concept of the permanent object". This means an object is known to be present even though it is not physically present to the perceiving senses – this relates to drawing from the *memory* of the structural elements of an object. A child can know a *thing* that is not present and to make it concrete, the child forms symbols. This represents the stage of *symbols* in the developmental drawing stages.

All symbols refer to a reality beyond themselves, which is of relevance in drawing. By creating a representation of an object you are creating something symbolic. You therefore, have the reality of action that includes knowledge and perception, and everything else is symbolic. Riding a horse is a perceived action. The words that form the action are symbols that refer to that observable action. Drawing a person on paper is an external symbol; visually imagining a person in absence of that person is an internal symbol. Visual imagining is a specific type of internal symbol. It is a mental picture, or visual imagery - the ability to create a visual scene without the presence of the visual object.

Internal construction of new knowledge occurs only when individuals actively engage themselves to resolve the disequilibrium (imbalance) between "knowing" and "not knowing" something. This process involves high-level thinking. High-level thinking leads to intellectual development. It is applying empirical knowledge (experience) to construct meaning and in the process developing skill and confidence. In the current study, by introducing drawing techniques unfamiliar to the participants, the gap between what they knew and did not know was challenged. The purpose was the construction of perceptual and realistic drawing skills.

The optometric view of Piaget's theory was of particular use in my study. The optometric use of Piaget's philosophy, in the treatment of learning-related visual problems is accomplished by first probing for available knowledge in the ocular sensorimotor intelligence (eye movement and focusing), visual thinking and logical reasoning. I examined the participants' unmediated drawings to identify any visual problems, when developing the pre-intervention questionnaire. Then, by altering tasks and activities or the way they do things, the participants were encouraged to engage high-level thinking in the underveloped areas. I then facilitated the intervention by introducing a method they had not previously being exposed to. Based on Piaget's theory, this process of starting where the participants were and helping them move to "where they could be", stimulated the development of higher-level thinking in order to develop drawing skill.

According to Piaget, knowledge gained by the person is *constructed* by him or her and does not come from information in the object. However, successful performance, is no guarantee of high-level thinking. This kind of thinking requires an active use of existent knowledge that leads to acquiring *new* knowledge. Furthermore, new knowledge is not simply the adding of information, like memorising a new telephone number. New knowledge is a new way of *organising* reality – a new way of acting on the world. Thus, in mastering the techniques of observation drawing, the learner is developing a new way of understanding drawing. The focus here is on *thinking* and not just *doing*. To master a task, Piaget offers as remedy that the teacher changes the task to encourage the learner to discover the difference. This causes an intellectual conflict aimed at the learner's existent level of development. Knowledge is encouraged by internal construction or organising how objects relate to each other in a visual-spatial world. Thus, the child is not just learning observation drawing techniques but he/she develops visual thinking schemes at a conceptual level. High-level thinking is a personal response to a personal condition. This condition is the child's subjective realisation of disequilibrium and the motivation to treat the imbalance as a challenge. Overcoming the challenge is a re-equilibration and that's what Piaget means by development. Every re-equilibrium leads to a new disequilibrium. The goal is thus not acquisition of more content information but rather the intellectual development of the child through the internal construction of (drawing) skills. This will allow the child to use both practical and theoretical knowledge to learn empirical facts required to render naturalistic drawings (Wachs, 1981, pp. 581-589). I used Piaget's cognitive development theory to plan my study by evaluating the participants' drawings prior and post intervention to analyse and describe the changes in their drawing skills, and to establish the effectiveness of the drawing methodology.

3.4 Paradigmatic and epistemological premises: Qualitative

This research study was examined from a qualitative, naturalistic and interpretive perspective. A paradigm guides the researcher's actions (Denzin & Lincoln, 2000, p. 33). These perspectives should be clearly defined in terms of ontology and epistemology. Ontology refers to the most fundamental categories of being: The theory and nature of existence. Epistemology, or the researcher's theoretical perspective, is concerned with knowledge: How to distinguish between legitimate knowledge as opposed to opinion or belief. Table 2 presents the epistemological, ontological and methodological premises of my study.

Table 2

Paradigmatic and epistemological premises

Paradigm	**Anti-positivist / interpretive**
Ontology	**Social-constructivist** • Reality (the development of drawing skills) was understood and interpreted not controlled or predicted. • The subjective artistic and aesthetic experiences of the participants were observed, verified and then reported. • Multiple realities or truths were constructed by the individual participants. • Reality was restricted to a specific context - Visual Arts.
Epistemology	**Constructivist** • Knowledge is constructed through interpretation, observation, and subjective, participatory interaction with the drawing techniques in learning how to draw from observation.
Data collection	**Qualitative** • Questionnaires • In-situ, non-participative observations • Drawings • Analytical rubric

Adapted from Creswell (2008).

In this study, a qualitative mode of inquiry was followed to find answers in establishing the effectiveness of observation drawing techniques of middle-childhood learners. Qualitative research is often a multi-method mode of inquiry, which involves an interpretive and naturalistic approach to its subject matter (Cohen, et al., 2006, pp. 137, 138; Merriam, 2009, p. 16). I employed various tools to collect and analyse the data in finding answers to my research questions (see Table 2). Qualitative research is about meaning in any given setting. By taking a qualitative approach, we

look for changes and improvements that could not easily be measured or translated into numbers (Shank, 2006, p. 3). The participants received instruction in learning how to draw. The research took place in a natural setting - the Visual Arts classroom at the school where I was teaching. The participants constructed their own multi-layered realities, according to their individual interpretations and understanding of the drawing techniques. Apart from presenting the visual data collected, rich descriptions were used to augment the drawings of each participant.

3.5 Research design: Embracing a new genre

The study was conducted within arts-based research – a type of qualitative research – an image-based or visual method allowing data to be collected in visual form. Arts-based research is characterised by a narrative-like or *artistically* critical form of disclosure. Drawing upon phenomenologist philosophers, the self-emancipatory potential of arts-based projects is highlighted (Barone & Eisner, 2012, pp. 156-164). “Self-emancipatory” implies that instead of moving directly outward to a wider audience, the researcher first moves inward, with the assumption that the personal interpretations of the data analysis will ultimately also be appreciated by others.
In projects of social inquiry, the arts-based researcher may be simultaneously “specialist *and* layperson, participant *and* onlooker”. These multiple roles adopted by the researcher, assist in establishing a needs analysis which often introduces social inquiry. The needs I identified - that initiated this inquiry - are the challenges in the drawing developmental stages of primary school leavers and the lack of a prescribed drawing methodology in the Visual Arts curriculum. Drawings created by the participants; two questionnaires, in-situ observations and an analytical rubric were the tools used to collect data.

Education research is both modern and post-modern. Mixed and emerging developments signal that research is eclectic in its paradigms, traditions, methodologies, instrumentation and data analysis. Cohen, et al., (2006, p. 381) note that because education opens minds, educational research in its endeavour to create new knowledge should not be bound by traditional disciplines but should also be open to new developments.

Arts-based research is a new methodological genre that has emerged in the recent decades (Barone & Eisner, 2012). I opted for this design as I could best present the data to illustrate the effect of the observation drawing techniques. The *language* is non-discursive. Understanding is enhanced through the utilisation of different forms of representation to ensure trustworthiness and to counteract researcher bias. In order to be called arts-based research, it has to succeed both as a work of *art* and as a work of *research*. McNiff (2007, p. 29) describes art-based research as a

means of using the artistic process and expression as a primary way of understanding and examining experience by both the researcher and the participant. It offers ways of solving problems and predicting, not possible through language.

Arts-based research and other image-based methods are increasingly preferred for research studies with children around the world. According to Driessnack & Furukawa (2011, p. 7) children are naturally inclined to solve problems, and organise, and retrieve information using perceptual skills instead of the semantic, or language skills preferred by adults. Prosser (2001, p. 273) refers to the "draw and write" approach, developed in 1972 by Noreen Wetton, and describes how an image-based approach was used to improve health education in England with great effect. Like Piaget, Wetton emphasises the importance of "starting where the children are" and using children's own drawings and words to provide curriculum developers with information.

Quality arts-based research serves as a facilitator for questionings, reexaminations of values and conversations and "seeing the world anew" (Barone & Eisner, 2012, p. 167). The aim of arts-based research is to move work done into the public domain, generating insightful questions about "dominant societal affairs that might otherwise remain largely *un*asked", outside the walls of the academy. Good arts-based research challenges the reader or viewer to take another look at social dimensions, such as the perception - that drawing is only for those talented in art - that could previously have been taken for granted.

The assessment of work in arts-based research requires work to be examined according to the following criteria (Barone & Eisner, 2012, pp. 156-164). Data collected in this study were examined within the framework of these criteria.

Criterion 1: **Incisiveness (perceptive directness)** - the work of research cuts to the core of an issue. When examining the data/drawings, the *core* issue will be: Is the representation done accurately?

Criterion 2: **Concision (summative)** – characterised as leanness, insofar as the various observation drawing techniques (small parts) contribute to the 'whole' of the drawing. To present lean data, I purposefully selected the drawings to illustrate the criteria in the rubric.

Criterion 3: **Coherence (comprehensibility)** - Coherence is how the art work is created to form a strong whole (*gestalt*). *Gestalt* psychologists refer to the law of *pragnanz*, a law that pertains to the way components in a complex form, such as those in a drawing hang together. Does a drawing/painting "work"? Does it look "right"?

Criterion 4: **Generativity (how producible it is)** – How useful/meaningful is the work of art? The focus of this criterion, as it relates to this study is the claim of observation drawing that *anyone* can learn how to draw, even those who believe that they have no talent for art. The participants' drawings were useful for me in order to gain insight into the truthfulness of this claim.

Criterion 5: **Social significance** - Significance relates to the themes of the work. The central theme in my study is the internal construction of perceptual and drawing skills. Of what importance are the visual data and what difference do they make for Visual Arts education? The theme of the work adding significance is the *learning and teaching of drawing.*

Criterion 6: **Evocation and illumination (Metaphorical interpretation)** - "shedding light" on something. All art forms are 'read'. Evocation is an epistemological means for suggesting meaning. Arts-based works do, like all art, possess a cognitive dimension (Barone & Eisner, 2012; DoE 2008b). When illumination or interpretation is combined with suggestion, the art work will serve both to stimulate cognitive insight and prompt an emotional response from the viewer.

Within the framework of arts-based research, I designed an analytical rubric, employing five criteria to examine the participants' work. This rubric is presented in Chapter 3, Table 4.

3.6 Research methodology

3.6.1 Participant profile and selection

The aim of the research study was for participants to learn how to draw through the intervention of observation drawing techniques. Drawing skills form the basis for all design and art forms (Kurczynski, 2004:93). The study focused on primary school leavers, 11 to 13 years of age, also referred to as "middle childhood" learners in grade 6 (Intermediate Phase) and grade 7 (Senior Phase). Learners at this age have already formed a perception of whether they have a talent for art and may have lost interest or abandoned art all together, if they were unable to render realistic representations of objects. As primary school leavers they should have met minimum outcomes and standards in all subjects, including Visual Arts.

Participants were identified through informal enquiry. The *minimum* requirement for a learner's inclusion in the sample was an expressed interest in learning how to draw. Other conditions for learners' participation in the study were a belief that they had no talent for art and they also should not have taken private art classes. Being able to understand English fully was also a criterion of note. The sex or race of learners were considered an insignificant variable and were thus not

considered. The purposefully selected sample formed one heterogeneous, multi-cultural group of *thirteen* participants. See the participants at the research site in Figure 7.

3.6.2 The research site

Gatekeepers are individuals who have an official role at the site. They provide entrance to the site (Creswell, 2011, p. 211; 2008, p. 218; Maree, 2011, p. 34). For my study, gatekeepers identified were the principal of the school and the chairman of the school's governing body.

This study was done within a single, urban and multi-cultural English medium primary school, where I was teaching. It is a co-educational, Christian-orientated school situated in the eastern suburbs of Pretoria in the province of Gauteng, South Africa. South Africa is a country inhabited by diverse peoples and cultures. The multi-cultural nature of the school is a good representation of the wider population in South African society. The school accommodates learners from grade R to 7. It is a well-resourced school with a swimming pool, tennis courts, a dance hall as well as an ultra-modern music and computer centre. The school buildings are surrounded by trees, plants and flowerbeds.

I used my classroom to collect the data because it was convenient - easily accessible and the least disruptive or intrusive. It was also known to the learners as an art classroom. The site was respected. I obtained informed consent, in writing, from gatekeepers at multiple levels prior to commencement of the research, after receiving ethical clearance from the Faculty of Education Ethics Committee at the University of Pretoria.

Figure 7 Participants at the research site.

3.6.3 Data collection tools

Five main instruments were used, namely a pre-intervention questionnaire, in-situ observations, objects selected for drawing, post-intervention drawings, an analytical rubric and a reflective post-intervention questionnaire (see Table 5 for protocols used). Below is a description of the data collection tools, employed for the gathering of information.

3.6.3.1 Pre-intervention questionnaire

Data collection commenced with a pre-intervention questionnaire to introduce the research (Appendix G). I incorporated the participants' drawings in the pre-intervention questionnaire to afford learners the opportunity of accessing their sensory or perceptual resources and to also establish "where they were" in terms of drawing competence and visual perception skills. This process was administered in my classroom.

The questionnaire had drawing as its focus and involved text, guided by nine, scaled-response and multiple-choice questions, which allowed learners to select from a number of alternatives. It also involved two unmediated drawings: (1) the reconstruction of a childhood drawing, revisiting the symbol stage as indicated in the theory of drawing developmental stages of children and (2) a current drawing. I then examined the drawings to establish the participants' drawing stages in terms of the theory of drawing developments stages, adapted by Edwards (1982) and Lowenfeld & Brittain (1970). The pre-intervention unmediated drawings were analysed, classified and categorised under the relevant drawing stages, to be compared with the drawings done after intervention, later in the study. The pre-intervention questionnaire formed the first set of data.

3.6.3.2 Observation checklist

Observation is the process of gathering first-hand information by observing people at a research site (Creswell, 2011, p. 213). I adopted a holistic perspective. Although the data came first, I did not seek aggressively. I used my senses and intuition, to gather information without necessarily communicating with the participants. My role of complete observer was like that of "the lantern" or a detective (Shank 2006, p. 35). I used a checklist to "watch" the participants, looking carefully and systematically, searching for a richer and deeper understanding of the drawing phenomena. I designed an observational checklist, adapted from Edwards (1982) to record observational data to *interpret* the mechanical and emotional aspects of the participants (see Appendix H). I employed an assistant to conduct the skills intervention. The assistant instructed the participants on the basic techniques of observation drawing by means of a Power Point presentation. While the participants were drawing I looked for evidence of the effective use of the drawing techniques.

I considered the following criteria to guide my observations. I observed whether they grasped the concept of a particular "way of seeing" and whether they demonstrated an altered state of awareness. I studied them to determine their drawing from observation and not from their memory or imagination. I looked for signs of frustration or embarrassment. Most importantly I looked for changes in their drawing skills and signs of improved self-confidence. Lastly, I observed them to see if they were enjoying themselves.

3.6.3.3 Drawings and objects

Participants were introduced to Edwards' cognitive-shift model. The four principles on which the model is based were fundamental in the planning and instruction of the methodology. The focus of the model was thus on the development of perception skills. As the development of drawing skills was the main focus of my research, the drawings were done in pencil only, not to distract from its importance (see Chapter 4 for the pencil drawings).

I designed a rubric to evaluate the drawings, based on these four perception skills. The first perception skill is the perception of edges, learnt through contour drawings; perception of space is learnt through drawing the negative space of objects; perception of light and shadow to record "value" and perception of spatial relationship learned through perspective and instructed by the method of "sighting", used to determine the relative sizes of angles, shapes and spaces.

In contour drawing, perceiving the edges of objects is learnt. The participants were taught how to draw the visible edges of a shape – the outside of an object or the lines made by a fold or pattern. Every session was started by the participants doing sketches to practise contour drawing.

After learning how to perceive edges, participants learnt how to perceive spaces. When the participants started to draw, they had perceived stereotypes about objects. This happens when we know what an object looks like and when we draw from memory and not from the structural elements of an object. When drawing from the structural elements of an object, you record the information by drawing what you see and not how you think or remember the object looked like. By perceiving the spaces around the objects they learned to focus and draw from the structural elements of the subject material.

The third perceptual skill – the perception of light and shadow – enables creating three-dimensional images. This skill is affected through the use of "shading" that presents different values. Shading is achieved through a variety of crosshatching techniques. The participants watched the PowerPoint presentation (Appendix J) to see examples of how to record texture. Shading was also demonstrated on the blackboard by the research assistant.

The fourth skill, how to perceive spatial relationship, means learning “how to see to draw the objects in perspective with correct proportions”. This skill entails seeing angles relative to vertical and horizontal and seeing proportions relative to each other in a space. To simplify seeing in perspective, a measuring technique or “sighting” is used. Pencils were used to measure and record the participants’ observations to draw the objects in perspective.

Drawing sessions started with feedback on the drawings done at the previous session. Warming-up sketches to practise the techniques were then done to prepare for the upcoming session. A final drawing or drawings were handed in at the end of each session. Drawings, *before* and *after* intervention, collected from the participants formed the main data set in the data collection and analysis process. The drawings done pre-intervention were evaluated according to the theory of drawing development stages, discussed in Chapter 2 and above. The participants’ drawings after intervention, evaluated by the rubric, demonstrated the development and construction of knowledge and skills, as described in the study discussed below conducted on drawing practice.

Mayo (2012, p. 75) describes a visual representation, as a cognitive tool, having the ability to transform possibilities into refined or sophisticated ideas by entering into cycles of inspection, conception (of ideas) and re-examination. During this process thought is stimulated and visual perception or awareness is developed. The practice of drawing, as a tool, allows the “exploration and recording of the environment, extending personal sensorial experience to document stimuli or objects” (Mayo, 2012, p. 3). Mayo suggests that gathering and recording information in this way can significantly improve creativity and visual literacy. Mayo (2012) further reveals that it is the stages of transformation, from perception to concept that determine the nature or character of a drawing, as this process commands the complex navigation and triangulation of a series of thought processes in order to create an art work. The process of transformation, when recorded, develops creative and critical thinking skills.

Recording information through drawing extends the boundaries of memory, by offering a means to record thoughts and making them concrete (Mayo, 2012, p. 76). Drawings can then be inspected and altered over time as new ideas emerge. Recording of ideas is especially valuable when sketching. Sketches were done by the participants throughout the drawing process to practise and develop their skill.

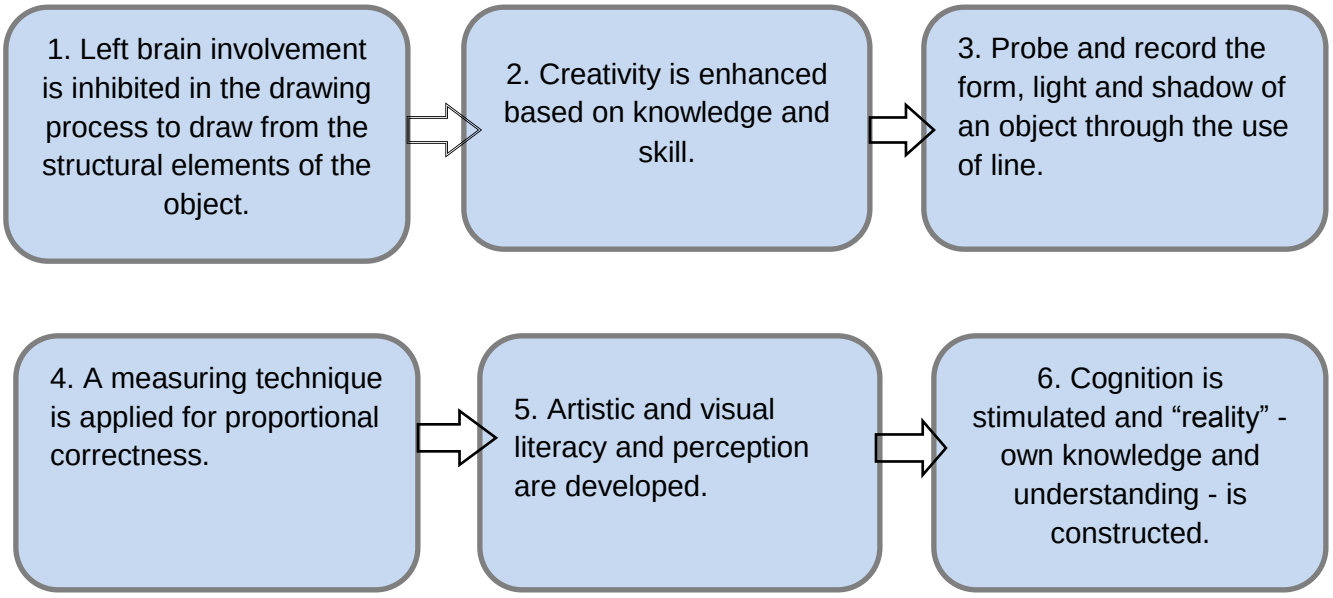


Figure 8 My interpretation of the drawing process.

The following objects were selected to be drawn from observation for the five-week data collection period (see Table 4 on the next page). The objects selected were not complicated but *unfamiliar* enough to encourage drawing from observation and not from memory or experience. The objects were the participants' only source of information; they drew with their eyes bouncing from the paper to the object, sketching and recording what they observed.

Each session started with warm-up sketches of additional objects provided for the purpose. During week 1, the participants had to draw a glass cylinder with a lemon inside. Drawing the correct form of the lemon inside the cylinder presented an optical challenge and I thought it to be a good start for practising contour drawing. During the second session in week 2, they drew a crumpled brown bag or large paint brushes. During week 3, they had to draw a cup and saucer with a teaspoon. Week 4 required the participants to bring along a mirror to draw a self-portrait and in the last week, week 5, they had to draw a still life. They could choose between twigs, berries and leaves, an ornament or a toddler's leather shoes. Below are the pictures taken of the objects that were drawn by the participants.

Pictures of the objects drawn by participants

Week 1: A glass cylinder with a lemon inside.

Week 2: A crumpled brown paper bag or a large paint brush.


Week 3: A cup and saucer with a teaspoon.




Week 4: A self-portrait - the participants drew their own reflection from a mirror.


Week 5: Still life – a choice between twigs with berries, ornament or a toddler's brown leather shoes.




3.6.3.4 Post-intervention reflective questionnaire

I designed a reflection questionnaire to enable the participants to look back on their drawing experiences to think where they were when they started and where they were after the intervention (see Appendix I).

My questionnaire had six multiple-choice questions to establish the participants' perceptions, judge their degree of improvement and rate their progress *before* and *after* skills intervention. I asked questions to establish how they perceived their drawing competence after having received skills intervention and how they rated their degree of improvement. Questions also included enquiring about the technique they found most difficult to do and the technique they most benefitted from. I ended the questionnaire by asking whether they had mastered the skill of drawing naturalistically.

Their responses led to new insights into the effects that observation drawing had on drawing competence of middle-childhood learners. I interpreted the information obtained from the participants' answers to describe my findings. This section ends with a summary of the data collection protocols, discussed above. See Table 3 for a summary of the data collection protocols.

Table 3 Data collection protocols		
Instrument	**Purpose**	**Contribution to answering research question**
Pre-intervention questionnaire	1. To find a sample of 13 grade 6 and 7 participants, with a desire to learn how to draw; who believed that they had no talent for art, to participate in the research study. 2. To obtain pre-intervention, unmediated drawings. 3. To classify and categorise the participants unmediated drawings according to their drawing stages.	The pre-intervention questionnaire contributed to assessing the drawing competence of middle-childhood learners in offering a standard against which I could measure the effectiveness of the intervention.
Observation checklist	1. To observe and determine the mechanical and emotional aspects of the participants while processing and applying the drawing techniques during the drawing sessions.	Observation drawing requires intense and focused attention in order to record visual information accurately. The observation checklist was effective in assessing the success of participants experiencing a cognitive-shift, enabling them to engage fully in the drawing process.
Post-intervention drawings	1. To inspect the process of transformation from "perception to concept"(Mayo, 2012) 2. The internal construction of perceptual and drawing skills.	The post-intervention drawings were key evidence of assessing the effectiveness of the drawing techniques to establish the mastery of drawing naturalistic pictures. The challenge was to overcome stereotypical representation. Mastering observation drawing techniques empowered them to render realistic drawings which assisted me in informing a methodological framework for observation drawing.
Reflection questionnaire	1. Participants reflecting on their drawing experience. 2. To triangulate the data and to determine and assess the effectiveness of the intervention strategy.	The reflection questionnaire provided feedback from the participants and provided me with valuable information in terms of the success of the intervention and what it meant for them. I could use their answers to improve the process of teaching and learning to draw by focusing on the areas that they experienced as challenging. It also provided information on the success of the intervention.

3.6.4 Data collection process

I started the data collection period by conducting a pilot study of the questionnaires on eight learners (not participants, but with a comparable profile), one week prior to commencement of the research to test the effectiveness of the instruments. These learners were invited to complete and evaluate the questionnaires for clarity. The instruments were modified, based on the learners' feedback.

The selection of participants took place before the official data collection period by means of the pre-intervention questionnaire to select thirteen participants. I invited grade 6 or 7 learners who were interested in learning how to draw. Owing to time constraints, completion of the pre-intervention questionnaire took place randomly at times arranged between myself and the learners.

After I had selected the participants, I filed their questionnaires with the two unmediated drawings to evaluate them at a later stage. The chosen participants were given timetables of the planned intervention drawing sessions. Data collection was to take place in my classroom. The art works to be collected after intervention, formed a vital part of the data analysis and findings, as they were to be compared against the unmediated pre-intervention drawings of the participants. Four of the five sessions took place during the upcoming July holidays. Data were collected every Wednesday, between 14:00 and 15:00 in the afternoon. The last session was conducted during the first week after the schools had re-opened, after school hours.

The intervention was presented through a PowerPoint presentation (see Appendix J). I designed a five week-long studio course in the instruction of basic drawing skills. On the first day of the data collection, 13 participants arrived at my classroom. Absentees over the period of the data collection were recorded on an attendance register. The session started at 14:00. I prepared the classroom in advanced. The desks were arranged in a circle with the object for the day - a glass cylinder with a lemon inside, on a table in the middle of the circle, for all participants to have a clear view of the object. I also placed a blank drawing sheet on their desks for preliminary sketches. After the participants were seated, I welcomed them and introduced the participants to the research assistant. The research assistant was an artist, who, although she was excellent with painting techniques, benefited from the drawing lessons acquired from applying the observation drawing techniques.

Figure 9 Week 1: A glass cylinder with a lemon inside.

Mainly pencil and/or charcoal pencils were used to draw. Each participant received an H3 or H4 pencil (see Figure 10). Faber-Castell Knetgummi art erasers were made available. These erasers are used by rolling them into a stick and then rubbing or dabbing as required to correct shading, charcoal or pencil work. However, persistent erasing was not encouraged. Participants were advised to correct their lines and to erase incorrect lines at a later stage, after the drawings had reached completion. Instruction on observation drawing techniques commenced through a Power Point presentation by the research assistant (see Figure 11). After the presentation the assistant personally demonstrated the techniques for clarification.

Figure 10 Pencils used by the participants.

Drawing lessons started with contour drawings. In contour drawing you focus on the outside line or the edges of the shape of an object. The assistant demonstrated “blind” contour drawing – not looking at the drawing sheet but keeping the eye fixed on the object - and the sighting technique. They were also instructed on how to create depth through shading. Various lines and cross-hatching techniques were illustrated. Sketching is a crucial part of communicating and recording ideas on paper (Mayo, 2012). I therefore started the sessions with sketches, also for the participants to practise the techniques before rendering their drawings of the day. Blank sheets of paper were provided for this purpose. The assistant moved around to assist the participants in the implementation of the techniques (see Figure 11).

The technique of “modified” contour drawing was also explained. Modified contour drawing is exactly like pure contour drawing, except that the sketcher is allowed to glance briefly at the drawing at intervals to monitor where the line is going. The head was also not to be tilted in wanting to see the part of the object hidden from sight. A single view was to be created of the object, to prevent distortion. Learners were encouraged not to name the parts as they drew, as words are not helpful when working with visual information. All the information they required was right there in front of their eyes.

The formal drawing session began. New sheets of A3 sketch paper were placed on their tables. The papers were taped down. Taping was recommended so that the paper would not shift or slip around while drawing. Participants were reminded to draw what was in front of their eyes and *not* what they *thought* or *remembered* an object looked like. They were also reminded not to be critical of their efforts but to just keep drawing. The assistant continued with the drawing lesson.

The assistant announced that they were going to draw the cylinder without being able to follow their pencils on the drawing sheets. The participants had to face away from their drawings and focus their attention on the cylinder in front of them. What follows is the assistant’s brief:

> 1. Remove all your attention from your drawing. (Learners had to suppress their impulse to look at their drawings). If you peek out of the corner of your eye, it will activate the L-mode and it will defeat the purpose of the exercise.
>
> 2. Look at the class cylinder, place your eyes on some part and perceive an edge. At the same time, place the point of your pencil on the paper.
>
> 3. Very slowly, creeping a millimetre at a time, move your eyes along the edge of the cylinder, observing all the detail. As your eyes move, also move the point of your pencil

at the same slow pace, recording the edge of the cylinder. The information in the object is simultaneously recorded by the pencil.

4. Do not look at the paper. Observe the cylinder and draw the edges, one bit at a time. Do not be concerned about whether the drawing will look like the cylinder. By restricting your perception to small bits at a time, you learn to see things exactly as they are.

5. The movement of the pencil must match the movement of your eyes. Do not speed up. Do not pause but continue at a slow, even pace. You may feel uncomfortable or uneasy, but continue drawing and ignore the feelings of discomfort. Simply persist. You have nothing to fear or feel uneasy about. Do not be concerned whether the drawing will look like the cylinder. Record your perceptions.

6. Draw only what you see (spacial R-mode) and not what you know (symbolic L-mode). By fixing your eyes on the image before you, the drawing will reflect exactness of perception, it will look real.

The assistant's brief was adapted from Edwards (1982).

Figure 11 The research assistant presenting the Power Point presentation and demonstrating the measuring technique.

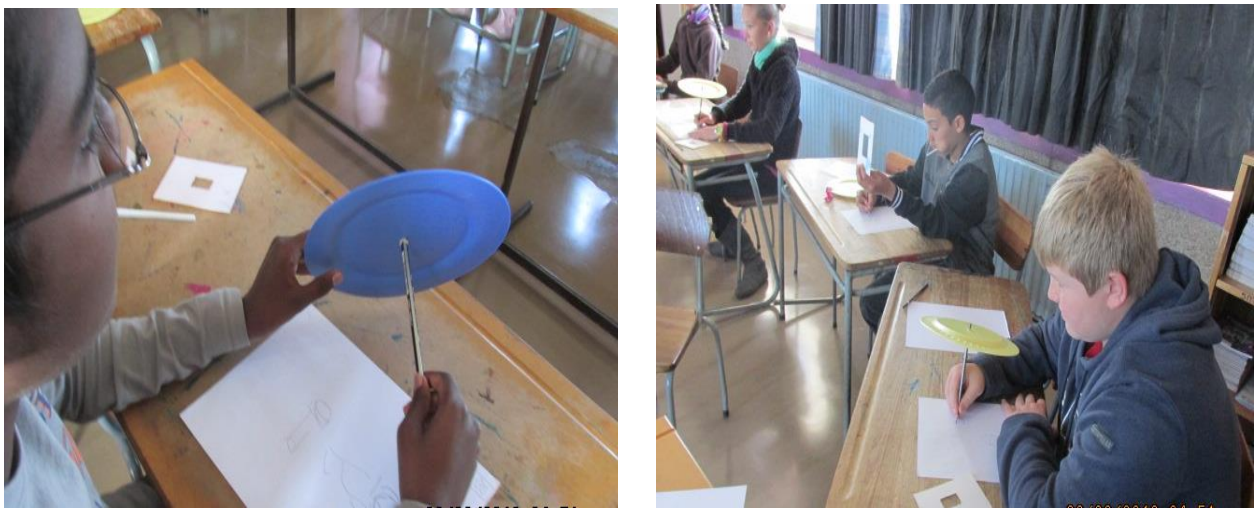


Figure 12 Participants practising using blinder cards.

Blinder cards were used on the pencils, as “helpers” to assist in blind contour drawing. I used paper plates to make these blinder cards by making a small hole in the centre of each plate (see Figure 12). The pencils were placed through the holes to make it hard for the participants to see what they were drawing. Participants were also encouraged to use viewfinders. I made the viewfinders by using cardboard to cut rectangles into the same shape as the drawing sheets and then cutting out smaller rectangles from the centres (see Figure 13).

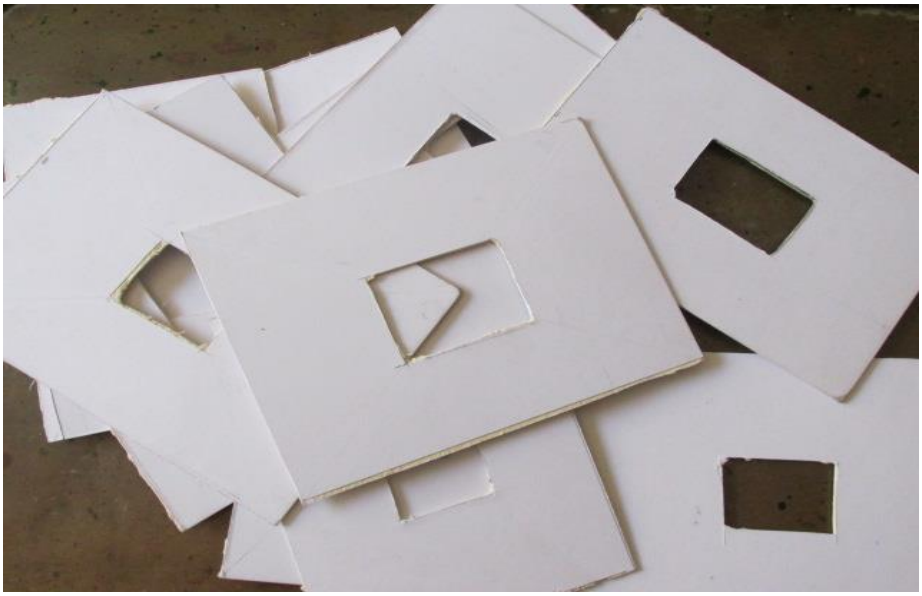


Figure 13 Viewfinders.

Week/session 2: No formal instruction took place, but participants were assisted by the research assistant within the implementation of the drawing techniques. Participants drew either, a brown paper bag, recording the light and shadows or a large paint brush. The desks were arranged in a circle. Paper bags and paint brushes were placed on their tables and on the table in the middle of the room.

Week/session 3: The research assistant briefly revised the drawing techniques and reflected on the drawings done during week 2. Thirteen tables were arranged in a circle. Glasses with Styrofoam balls were placed on the table in the centre, for the participants to make preliminary sketches before starting to draw the cup and saucer with teaspoon (see Figure 14). Sets of cups and saucers with teaspoons were carefully spaced so each participant had a clear view. Pencils and erasers were handed out. The participants gathered around the objects and continued to practise the drawing techniques, closely observing the objects and recording their observations on paper.

Figure 14 Week 3: The classroom before and during the drawing session.

Week/session 4: Thirteen tables were arranged in a circle. Each of the participants brought a mirror and drew their own reflections. They started the session with warming-up sketches and then proceeded to draw their own faces. They had to look in the mirrors and record what they saw. The assistant guided them through the process. Correct measurements of facial features were mentioned to guard against optical illusions causing them to place the eyes higher or closer to the hair line, for example. Shading and placing of light and shadow to create depth, received special

attention. Line quality was accentuated to obtain the desired effect, adding character to the drawings.

Week/session 5: Instead of thirteen only eight participants arrived for the last drawing session. It happened to be the first week of the new term and four of the participants had to attend athletics practice. The drawing assignment for the day was a “still life”. Participants were given the option of drawing: (a) twigs with berries, (b) an ornament: a wooden dog (3D) and (c) a toddler’s brown leather shoes. Tables were arranged in a half circle with the “still life” objects on display on a table. The same process as described above was repeated.

Figure 15 Week 5: The last drawing session.

After they had finished drawing, the participants completed the multiple-choice reflection questionnaire, as described on page 53 in section 3.6.3.5 (see also Appendix I). Reflection was important for the participants to think and process what they had gained through the intervention sessions. The data collection process was completed and the drawings and reflection questionnaires were placed in the different folders. Drawings were interleaved with “tissue” paper to prevent smearing.

I then started the process of sorting through the drawings to make sense of the raw data in preparation for the data analysis. Although the visual representations were my primary source of data, I synthesised the data by looking at the “*teaching and learning* of drawing” from different facets, by employing the various instruments, as well as the various perspectives of the body of scholars presented in my literature review.

Data are, first of all, evidence of, or for a claim (Shank, 2006, p. 125). Data therefore, needed to be turned into research findings. I started by examining the questionnaires and drawings. I engaged with the data by asking questions to make sense of the raw data in preparation for the data analysis, discussed in the next section.

3.6.5 Data analysis

I designed an analytical rubric within the framework of arts-based research to grade the selected works submitted (Barone & Eisner, 2012), based on the four perceptual skills derived from the cognitive-shift model of Edwards (1982) to evaluate the participants' *post* intervention drawings. The rubric is presented in the teachers' resource pack in Appendix N.

Drawing from observation implies drawing directly from the structural elements of an object in order to make the drawing look real. Achieving realism in representation is the prized goal. The assessment criteria were therefore directly linked to the purpose of my study, namely to study the effect of observation drawing on the drawing competence of children in their "middle-childhood crisis" years to establish the effect of the intervention on their drawing competence when compared to their pre-intervention entries. The criteria were selected, based on the perception skills, derived from the cognitive-shift model of Edwards (1982).

Edwards' cognitive-shift model includes skills such as *contour drawing*, drawing while focusing on negative and not positive space of an object, *recording of light and shadow* to create depth, and *perspective* - "sighting" the correct proportions and observation skills. I also added the expression of creativity and metaphorical/communicative aspects as criteria. The criteria were purposefully searched for and identified in the selected drawings. The drawings were not created to illustrate or demonstrate the criteria, as the participants were not aware of the criteria. I wanted the focus to be on the mastery of skills and not on assessment.

Studying the visual data, I first started the process by considering whether the subject matter or structural elements were accurately rendered, to establish the participants' success in mastering observation skills. Secondly, I considered the proportional relationships of the objects to see if the subject matter had been drawn in perspective. Thirdly, I studied the recording of the elements of art, such as line, light and shadow and the texture created with their drawing and charcoal pencils. I examined the contour lines and the form of the objects, to assess similarity among the observed objects, obtained through them focusing on negative spaces. After assessing the technical aspects, I allocated marks for the aesthetic value of the art works. I judged the metaphorical and aesthetic aspects of their art works to establish enhancement of creativity and self-expression.

The eight participants' drawings, collected over the five-week period were individually graded. Marks were allocated to each criterion of the rubric and analysed with percentages of distribution frequency to evaluate their drawings. The maximum score was a mark out of 15. There were five criteria. Mastering a criterion would amount to the top score of 3. If partially mastered, the participant would score 2. If the participant had not mastered the drawing technique he or she would score 1. The ideal would have been for a participant to achieve a total score of 15, in order for the intervention to have been successfully processed and applied. A score of 15 would be an indication of the development of the construction of knowledge and skills. The participants' drawings were analysed, interpreted and discussed according to the criteria in the rubric as well as the other data collection instruments, discussed in this chapter to augment the visual data and used to describe the findings to answer the research questions.

Single drawings of participants' work offered clear examples of observation drawing techniques as developmental tool in the learning and teaching of drawing (see Chapter 4 and Appendixes L and M). The individual interpretation of the various drawing techniques by the participants demonstrated their drawing competence, after having received the intervention.

Data analysis involves "breaking up" the data into manageable themes, patterns, trends and relationships (Creswell, 2011, pp. 102, 248). I organised the data by categorising all the visual material and questionnaires and other documentations separately. The data analysis was qualitative and *inductive,* moving from the specific to a more general pattern of order. Segmenting is the most common initial procedure in data analysis. I conceptualised the different segments of the data by organising them into codes, which were collapsed into *themes*. I identified the themes looking for and finding patterns in data, searching for similarities and differences and comparing across the "coding categories" to discover connections between the themes. I focused on the themes identified from reviewing the literature, relating to and previously conducted in my field of inquiry and by searching the drawings and questionnaires collected. The goal was to integrate these themes into a theory to offer an accurate interpretation of the effects of observation drawing techniques on the drawing skills of the middle-childhood Visual Arts learners under study.

The analysis of visual material is complex. I was mindful that these themes had to be clearly reflected in the participants' artworks and that the readers or viewers also had to view the accounts in the same light as what I had done. I, therefore, presented the body of data to add authenticity to my findings (Appendix K and L)

I have identified the most frequently used "pictorial" codes from scrutinising the drawings and found evidence of the following codes in all eight of the participants' drawings:

accuracy; proportional correctness; balanced drawing; drawing techniques; gestalt; creativity; visual perception competence; enjoyment; self-expression; another way of seeing; high level thinking; greater awareness; studying an object; fun activity; progression in skill; improved observation; development of technique; learnt how to draw; looking real; improvement; form; line; texture; composition; light and shadows; drawing skills; engagement; knowledge; development of skills; realism; confidence; mastery; autonomy; focused observation; empowerment; construct; sketch.

The following "conventional" (textual) codes were drawn from studying the literature:

visual knowing; vision; cognition; knowledge; internal construction; organising; simple knowledge; identification of the elements of art; careful observation; visual learning; development of high-level thinking; aesthetic appreciation; competence; urge to get better; produced by engagement; independence; interest or enjoyment; knowledge and skill; all intelligences together; self-expression; development of visual literacy; development and improvement of concentration; close observation; engaging with the object; cognitive shift from verbal to non-verbal; accurate and realistic representation; cognition; knowledge is constructed; perceptual skills are developed; greater awareness; stimulates high-level thinking; visual thinking skills; conceptual level; academic learning.

The afore-mentioned codes were collapsed to form the following four themes (see also Appendix M): internal construction of perceptual skills; creativity; cognitive shift; drawing as an artistic end.

The following six steps were adapted from Creswell (2008) and were followed to analyse and interpret the data:

(1) The data collected were explored and categorised to obtain a general sense of the information. (2) The initial pre-mediated drawings were organised and categorised according to developmental drawing stages, discussed under the literature review of my study. (3) The post intervention drawings were technically and aesthetically analysed according to the rubric, designed within the framework of arts-based research (4) "Coding categories" evolving from the data were identified as well as small bits of information from the literature forming the field of inquiry and grouped together and collapsed into the themes. (5) These themes were structured to communicate a story, interpreting the development and construction of perception and drawing skills. (6) To be concise, I selected the visual data that would best mirror the themes. This implied sifting through the images and questionnaires, choosing "lean" data to mirror the participants' constructions of knowledge and skill of drawing. I included individual drawings (bits) that would add to the "*gestalt*" of my research according to criterion two of arts-based research, described in Chapter 3. I then presented the data

through thick, rich discussions of the themes based on the technically analysed visual data and textual information collected in the questionnaires.

The analysis was completed when I could share with others what the effect of the intervention was on the unmediated drawings of the sample. Analysed data were brought into context to reveal how they brought new understanding to existing knowledge on artistic development.

3.7 Ethical considerations

This research was conducted in accordance with the ethics and internationally accepted criteria for research of the University of Pretoria. Letters requesting permission for the research were written to the Gauteng Department of Education; the governing body chairman and the principal of the school, explaining the nature, purpose and scope of the study (see Appendixes A, B, C).

Letters of consent requesting assent were written to the then potential participants, explaining their role and voluntary participation. They were informed in writing of their right to choose whether or not to participate in the study, after being made to fully understand the nature and purpose of the research and after being given all the facts that might have influenced their decision. Their right to withdraw at any time or to terminate their participation once the research had begun was clearly communicated (see Appendix F). Signed consent was obtained from their parents and permission was granted from their care givers, as they were minors and considered as “vulnerable” (see Appendix E). At all times, I honoured my responsibility towards the respondents not to harm them, but offered them the benefit of acquiring new knowledge and skills. Consent was obtained to use photos of the participants and their drawings in line with arts-based research design, which is based on the use of visual artworks as data. Once ethical clearance and informed consent were granted, my research commenced.

3.8 Ensuring trustworthiness

The interpretive, interactive and analytical nature of the drawing experience necessarily involves a high degree of researcher subjectivity. To trust findings in qualitative research, qualitative insights could be validated by trustworthiness, comprising of four concepts, namely dependability, credibility, transferability and conformability (Lincoln & Guba, 2000). These sets of tools are applied to evaluate the quality and effectiveness of qualitative research.

Dependability is ensured through an audit trial and increased through member checks, where outsiders check and examine the notes and data of the researcher. I presented the full body of data for the reader/viewer to share in the drawing experiences of the participants. This included my

PowerPoint presentation presented as an intervention tool. Credibility is improved by multiple data sources and deals with the degree of "believability" of the research findings. The individual portfolios of the participants' drawings appended, photos taken during the drawing sessions as well as the questionnaires employed to collect data to augment the visual reorientations add credibility to the research study. Transferability is the degree to which results can be successfully transferred to a different setting or used on a different population. The detailed descriptions of all the relevant details of my research study on middle-childhood learners enhanced the transferability of the study to other settings and populations. The findings of the study are transferrable to, for example, pre-school children and adults. Conformability deals with the details of the methodologies, such as the *nature* of the raw data, how the data was analysed and how themes were formed. I appended the categorisation of the themes (see appendix N) and described how I segmented, coded and arrived at the themes under which the data were analysed and discussed.

3.8.1 Auditing

I appointed a research assistant (an artist) to facilitate the drawing intervention strategy. The research assistant reviewed aspects of the criteria, as set out in the rubric where I needed a second opinion, in judging the standard of the drawings collected. I created an "audit trail" for during and after the research to provide critique of the procedures used to check their clarity and consistency. I used triangulation to provide methodological reflexivity. My supervisor was instrumental in reviewing and examining the physical evidence of my work, pointing out discrepancies and errors. Physical evidence involved the raw data and instruments used to conduct the research.

3.8.2 Rich descriptions

I used arts-based research, as a methodology to rigorously investigate and analyse the development of the construction of artistic knowledge and skills. To achieve "transferability" I provided rich descriptions by providing full details of the context in which the research occurred and of the methodologies used. I used raw data and photographs of the setting for authenticity. Authenticity is an attempt to provide consensus of view, about what is considered to be true. The viewer will come to his/her own conclusion and judgement after viewing the evidence presented by the participants' drawings after intervention.

3.9 Conclusion

This concludes the chapter on data collection strategies and the instruments employed. In this chapter, the following were discussed: the research methodology and design and the conceptual and theoretical framework. This included the strategies implemented for gathering information and

the data analysis. A detailed description of the PowerPoint intervention and the facilitator's brief were provided. I discussed the ethical considerations employed and how I went about ensuring trustworthiness.

In Chapter 4, I report and present the findings of the research in order to answer the two research questions. I shall show how the intervention of a drawing methodology and direct instruction of drawing techniques impact the development of artistic and visual literacy to inform a drawing methodology for Visual Arts.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

As stated in Chapter 1, I investigated the effectiveness of a drawing methodology to establish the drawing competence of middle childhood learners to inform a drawing methodology for Visual Arts. My study was framed within Piaget's cognitive development theory. The theoretical framework drew upon the concepts, models and theories of the literature of Visual Arts and it also influenced how I interpreted the data. A qualitative approach shaped my study.

This study was done within a single, urban multi-cultural English medium primary school where I was teaching at the time, situated in the province of Gauteng, South Africa. The multi-cultural nature of the school was a good representation of the wider population in South African society.

Thirteen primary school leavers, 11 to 13 years of age, also referred to as 'middle childhood' learners in grade 6 (Intermediate Phase) and grade 7 (Senior Phase) were purposefully selected to participate in the research. Due to extra-curricular activities, only eight of these participants remained to complete the post-intervention drawings. I therefore only used these eight participants' drawings as data**.**

I had noticed that many primary school leavers do not achieve basic skills in Visual Arts which led to my discovering a gap in the arts curriculum. I applied Edward's cognitive-shift model as the intervention after having established the learners' current drawing stages as defined in the drawing developmental stages theory, hypothesised by Sully in 1895, adapted by Edwards (1982) and Lowenfeld & Brittain (1970). I asked two pertinent questions which will be answered by the data presented in this chapter. These included how effective the intervention of observation drawing techniques was on the drawing competence of the middle childhood Visual Arts learners and whether these findings could be used to inform a methodological framework for drawing. I used arts-based research as research design, a method of using visual material as a work of art and as a work of research. I collected data using two questionnaires, pre-intervention drawings, *in-situ* observations and post-intervention drawings. The dawings were done in pencil only.

4.2 Pre-intervention questionnaire: Textual information

Data collection was introduced with a pre-intervention questionnaire. This questionnaire consisted of two sets of data, text and unmediated drawings. I first interpreted the text, presented in Table 4 to establish their educational background in drawing.

Table 4, is a summary of the textual information collected from the questionnaire.

Table 4 Pre-intervention text

Participant	Bio-graphical detail	Rating own drawing ability as:	Taught by:	Learnt to draw from/by:	Enjoys drawing most:	Know any adults that can draw?	Drawing is for:	Talented in: (Creative arts)	Drawing is…
1	13 year old boy in grade 6	Good	Family member	Copying others	Present time	2	Children and grown-ups	Drawing and singing	an important skill
2	12 year old boy in grade 6	Fair	Teacher	Tracing	At present	0	Children and grown-ups	None of the four domains	just a fun activity
3	12 year old girl in grade 7	Fair	No one	Copying others	Pre-school	1	Children and grown-ups	Drama	an important skill
4	13 year old boy in grade 6	Good	No one	Copying others	At present	3	Children and grown-ups	Drawing	an important skill
5	12 year old girl in grade 7	Fair	No one	'How to draw books'	Pre-school	1	Children and grown-ups	Drawing	just a fun activity
6	12 year old girl in grade 6	Good	A teacher	Copying others	Pre-school	4 +	Children and grown-ups	Drawing, singing, dance, drama	just a fun activity
7	12 year old boy in grade 6	Very poor	No one	Tracing	At present	1	Children and grown-ups	None of the four domains	just a fun activity
8	12 year old girl in grade 6	Fair	"Someone"	'Someone' correcting her lines	Present time	2	Children and grown-ups	Singing and drama	an important skill

The sample that consisted of four boys and four girls - six grade 6 and two grade 7 learners were between the ages of 11 and 13 years. The average age of the participants was 12 years and 4 months.

Of the participants, 62.5% judged their drawing ability as “less than good”. A total of 75% had not learned to draw from a teacher. Of the sample, 50% learnt how to draw by copying others and 25% learnt how to draw by tracing. Only one of the participants received guidance from an adult. This participant was taught how to draw by an adult “correcting her lines”. Only 25% of the participants knew three and more adults who could draw. The rest of them knew only one or two adults each who could draw. Not knowing many adults that could draw could be indicative of the long-term effects referring to the level of skills developed among adults in their formative years. If more adults knew how to draw, a bigger percentage of the sample would probably have been able to create naturalistic drawings, even if they only copied or modelled the adult example. The majority of the sample (62.5%) still enjoyed drawing activities. Of the sample, 12.5% enjoyed drawing more when at pre-school. All the participants perceived drawing as an activity for adults and children. Half of the sample believed that they had artistic potential. Two participants believed that they had no talent in any of the four creative arts domains: dance, performing arts, visual arts and music. Half of the sample believed that drawing was simply just a fun activity. The other half however, perceived drawing as an important skill.

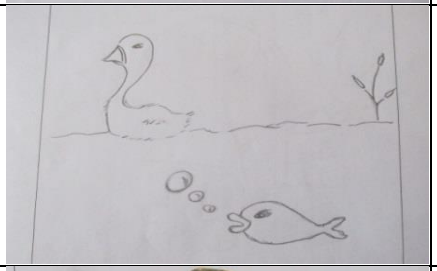
Artistic ability is linked with talent and most middle childhood children desire the ability to draw realistically (Drake & Winner, 2012). The questionnaire confirmed that, in spite of having had Visual Art as a subject for six/seven years during the Foundation and Intermediate Phases, only 25% of the participants received instruction on how to draw. The omission of a drawing methodology in the curriculum, discussed in Chapter 1, might have an effect on the lack of direct instruction of drawing skills by teachers.

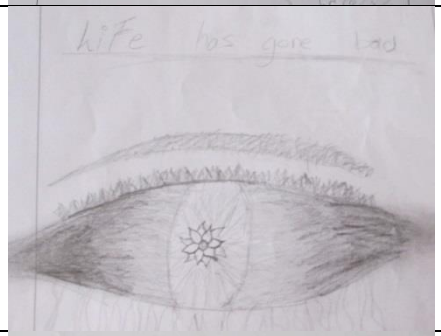
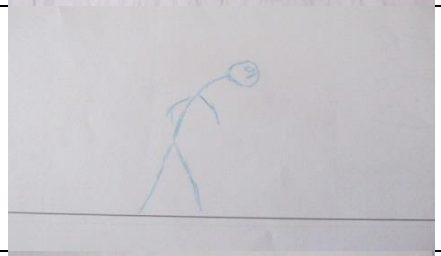
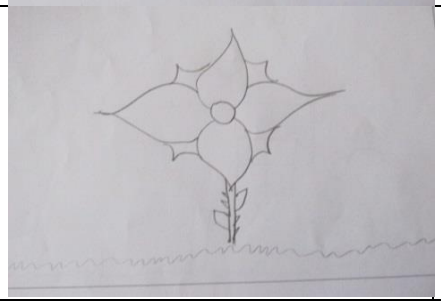
During my 17 years of teaching art, I identified a need for instruction in drawing at school level. Timeous intervention could possibly avert a middle-childhood “drawing crisis”. By the age of 12 years most of the participants had *not* been taught how to draw by a teacher. The summary in Table 6, therefore served as the skills and needs analysis to establish the level of skill amongst the participants. It also guided me on how to motivate them after realising how important drawing skills still were to them at that age. In the next section the unmediated pre-intervention drawings of the participants are examined.

4.3 Pre-intervention: Unmediated drawings

The participants' drawings were evaluated according to the theory of drawing developmental stages, discussed in Chapter 2. To establish their drawing stages pre-intervention, their drawings were classified according to the following developmental stages: (1) *Scribbling stage* (2) *Stage of symbols (3*) *Schematic stage (*4) *Stage of complexity and (*5) *Stage of realism.*

Table 5 presents the categorisation and classification of the drawings. To clearly understand, this table needs to be read in conjunction with the original copy of the suggested drawings stages on page 28, Chapter 2.

Table 5 Pre-intervention unmediated drawings				
Participant	**Unmediated drawing**	**Categorisation and classification of representation**	**Actual drawing age**	**Conclusion**
1 Biological age: 13 years		Stage of complexity / dawning realism.	Age 11	Stereotypical representation. He draws by copying others, from stored memory and imagination, not from observation.
2 Biological age: 12 years		Stage of complexity / dawning realism.	Age 10-11	Stereotypical representation. He draws by tracing, from stored memory and imagination, not from observation.
3 Biological age: 12 years		Stage of realism.	Age 10-11	Stereotypical representation. Her passion for realism or naturalism is at full bloom. She is creative but draws by copying others, stored memory and imagination and not from information obtained from the objects. Her representation is schematic and does not reflect realism.
4 Biological age: 13 years		Stage of complexity / dawning realism.	Age 10-11	Stereotypical representation. He is creative but draws by copying others, from stored memory and imagination, not from observation. He drew a cartoon figure indicative of his sex and boys of this drawing stage.

Participant	Unmediated drawing	Categorisation and classification of representation	Actual drawing age	Conclusion
5 Biological age: 12 years		Stage of complexity / dawning realism.	Age 9-10.	Stereotypical representation. She draws from 'how to draw books', stored memory and imagination, not from observation. She drew flowers and a vase, a fashion model with big hair and lots of detail, indicative of her sex and girls of this drawing stage.
6 Biological age: 12 years		Stage of complexity / dawning realism.	Age 10-11	Stereotypical representation. She draws by copying others, stored memory and imagination, not from observation. She added detail to basic form, in her yearning to achieve realism. She drew an eye with a flower and prominent eyelashes indicative of her sex and girls of this drawing stage. She expressed originality by expressing personal feeling which added metaphorical value to her representation.
7 Biological age: 12 years		Schematic stage.	Age 5 – 6	Stereotypical representation. He repeats the same drawings over and over again, using adjustments to basic forms. He draws by tracing, stored memory and imagination.
8 Biological age: 12 years		Stage of complexity / dawning realism.	Age 9 -10	Stereotypical representation. She draws from stored memory and imagination, not from observation. She drew a flower, indicative of her sex and girls of this drawing stage. She added more detail hoping by this means to achieve realism.

Interpreting the results of the unmediated drawings, I found that *two* participants had reached stage 5 – **the stage of realism;** *five* participants drew at stage 4 – **the stage of complexity / dawning realism** and *one* at stage 3 – **the schematic stage.**

I could therefore deduce that the majority of the sample, 65.5% were in the stage of complexity, or the *pre*-realistic stage - the beginning of realism. At this stage, children are no longer satisfied with schematic generalisation and are critically aware that their drawings do not look real. This critical awareness was reflected in the questionnaire; 62% of the sample judged their drawings as "*less than good"*.

All the participants' drawings were classified as "stereotypical". Stereotypical responses imply drawing from imagination or drawing from the "memory" of the structural description of an image. Edwards (1982) explains that during this stage, children typically try for more detail in their art, with the hope of achieving realism. Drawings become differentiated by sex. According to Edwards (1982, p. 72), boys usually draw "cars, war scenes, cartoon figures, block letters, piercing daggers and the (sic.) girls, flowers with vases, waterfalls, fashion models with "big hair and eyelashes"**.**

After examining the participants' drawings, this differentiation became evident. The one boy participant drew a face which was drawn from memory and two other boys drew cartoon figures. One of these two also drew a face which was a stereotypical representation. The fourth boy drew a stick man, this being an extremely elementary level. The girl participants, typically of the *stage of complexity*, drew flowers, a duck and fish swimming, a model with big hair and long eyelashes, an eye with a flower at the centre and a flower (see page 28 and 29, Chapter 2 for a full description of the stages).

The average biological age of the participants was 12 years. However, studying their drawings, I determined that their *actual* drawing age was 10 years. Participants had not achieved the basic skills of drawing and were not sufficiently artistically and visually literate for their age and phase in terms of where "they could be". All subjects require achieving basic skills according to basic standards set for each grade. Drawing and perceptual skills form the basic skills for the subject, Visual Arts (Edwards 1982, p. 3; Kurczynski, 2004, p. 93). Not having achieved the basic skills in a subject should be addressed through an appropriate intervention strategy (DoE, 2002). Without drawing skills, minimum outcomes and standards as prescribed by CAPS (2011) will be difficult to attain.

To establish the effect of the drawing development theory on drawing competence of middle-childhood learners, I evaluated the pre-intervention unmediated drawings against the drawing

developmental stages of Sully. I applied the theory to determine the perceived drawing stages of the participants. I used these stages to categorise and classify the participants' unmediated drawings in order to describe changes in their artworks after intervention.

Research conducted by Bartel (2000) and Matthews (2001) defies the basic assumptions of Sully's drawing development theory. This theory is based on the assumption that realistic representation is developed through "gradual adaptations" made by the child because of "corruption of an initially pure optical of retinal image". Matthew explains that according to this theory, children's "pure optical image" is finally to be *recovered* through the series of developmental stages (Matthews, 2001, pp. 14, 15). Bartel and Matthews challenge Sully's theory by suggesting that children notice details by "focused observation" and that they record their *own thinking* in relation to objects over time. In other words, one could argue that if drawing skills are actively developed through direct instruction during the early years, children might not need remediation at a later stage.

Studying the findings, I had to agree with Edwards (1982) as discussed in Chapter 2, that most learners would not develop drawing skills on their own, without instruction. Artistic talent needs nurturing. The learners participating in my research showed poor progression, not having met the basic skill in Visual Arts by the time they reached the end of primary school. Their drawings remained stereotypical. They were generally drawing from memory and not from observing the structural elements of objects. This indicated a lack of knowledge of and skill of drawing techniques, which could have been prevented, had they received skills training through direct instruction, from and at a foundational phase.

If learners seek to develop their artistic or aesthetic skills they have to consider private tuition. Their lack of naturalistic drawing skills seemed not to be addressed by the school system. Poor achievement of drawing and perception skills warrants remediation. However, poor progression of drawing skills seemed to be either ignored or accepted. As a result, the foundation for Visual Arts, appears to be without the foundational skill of drawing, concerning most learners, which might be problematic should they want to choose the subject in the Further Education and Training phase.

Not knowing how to draw realistically – an 'end' that all of the participants desired, affected their self-confidence. Transpiring from analysing their pre-intervention questionnaires; not knowing how to draw naturalistically, led them to believe that they had no talent for art. Judging the participants pre-intervention drawings, the learners appeared to be stuck at the pre-realistic stage of development. Due to their lack of technical skill, their drawings did not reflect naturalism and could not be described as "works of art". I shall now present and technically evaluate the post-intervention drawings, which were created after the intervention of observation drawing techniques.

4.4 Post-intervention drawings

Judging a piece of work means giving it rank in relation to other art works and considering its originality (Barrett, 1994). I did that by "reading" the participants' drawings and by deconstructing the elements of art to make critical judgments on the technical aspects. This entailed studying the rendition of the individualised use of line, recording of light and shadow, applied to create atmosphere in the drawing and the relationship between shapes as well as the texture, created by pencil and charcoal pencils in their drawings. These features were important to describe progress and judge the gestalt of the completed art works.

Artistic judgement is based on its own history, traditions and rules (Baptiste, 2008). Baptiste suggests that to judge an artwork one has to consider both the cognitive/intellectual and metaphorical/figurative elements. The *rules of art* involve the cognitive/intellectual elements. The metaphorical elements are applied for *aesthetic* judgement. I chose both cognitive and metaphorical elements as criteria to appropriately judge the participants' drawings.

I decided on the assessment criteria in advance to describe the levels of performance and to determine successful achievement of the set criteria**.** These assessment criteria were presented in a rubric designed within the broader framework of arts-based research. I designed an analytical rubric (see Table 4, in Chapter 3), to analyse the technical and metaphorical aspects of the participants' drawings. The participants' drawings were individually rated and combined to determine a group average score to describe their level of achievement in the findings as a whole. A synopsis presenting an overview of the research data is provided in Appendix L.

I started the evaluation by describing what I saw. Applying the criteria of the rubric one by one, I first looked at the subject and the object of a drawing. I then perceived the shapes, lines, textures and applications of light and shadow. This resulted in a technical description of the work. I ended the evaluation by examining the sensory aspects, such as the mood and general feeling reflected in the artworks. I evaluated this under the criterion, providing for creativity and the metaphorical/communicative aspects of the drawings.

Studying the post-intervention visual data, I recognised and identified the following themes: internal construction of perceptual skills; creativity; cognitive shift; drawing as an artistic end**.** The sorting and coding of data into themes were discussed in Chapter 3 (see also Appendix M).

For the sake of clarity a short definition of each theme is offered below:

Theme 1: *Internal construction of perceptual skills involves:* the internal construction of the perception of edges and space (correct form); perception of light and shadow (depth in drawings); and the perception of spatial relationships (correct proportions). Perception also plays an important role in the development of visual literacy skills which involves the identification of the art elements affected by "optical reception" or careful observation of subject material.

Theme 2: *Creativity*: In picture making, creativity is based on skills and linked to intrinsic motivation and autonomy.

Theme 3: *Cognitive shift:* According to Edwards (1982) a cognitive-shift is the apparent suspension of time, where no attention is paid to the spoken word.

Theme 4*: Drawing as an artistic end:* Arts-based research as methodology is a means of researching art as an end in itself. Art involves the physical manipulation of subject material, and giving aesthetic significance to ordinary things, after careful observation of their unusual qualities (McNiff, 2007, pp. 29, 34).

Assessment of an artwork involves considering conceptualisation, acquisition of skills and creativity (Baptiste, 2008). All these aspects add to subjectivity. The main challenge was thus to reduce subjectivity. To aid the objective evaluation of the drawings, I focused mainly on the criteria as presented in the rubric and not on what I perceived as "missing" in the artworks to describe the drawings. The criteria in the rubric covered the four perception skills of observation drawing. I also used the information derived from the pre-intervention questionnaire, the observation checklist and the post-intervention reflective questionnaire to evaluate the drawings.

I used narrative, but critical discussions of the technical and metaphorical aspects of the participant's' art works, covered in the rubric as well as the other aforementioned instruments to augment the analogue pencil drawings, with the aim of answering my research questions. Thereafter, I linked the visual data with the literature, discussing it under the themes that emerged from studying the drawings.

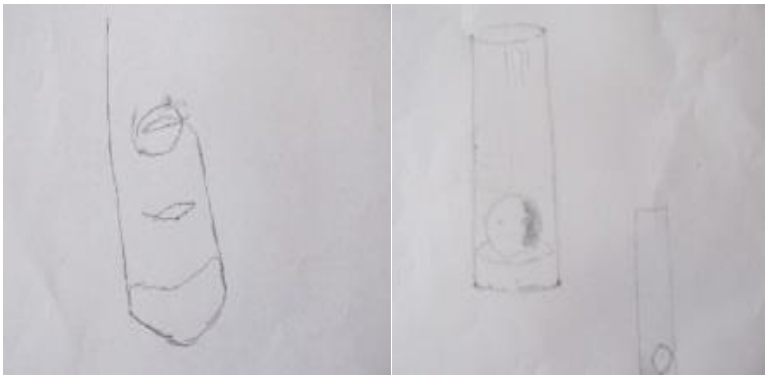
What follows is the post-intervention drawings of the participants. I presented individual collages of the participants' work, sequentially arranging the drawings from week 1 to 5.

Participant 1

Childhood memory **Pre-intervention**

Post-intervention

Week 1



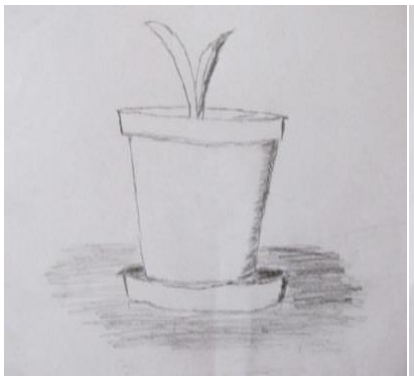
Week ⅓

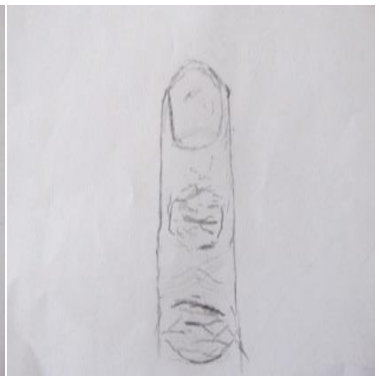
Participant 1 mastered internal construction of perceptual skills, indicated by his accurate recording of edges and shapes. He applied good line quality and texture. He mastered the measuring technique. His representations show exact proportional relationships with the observed object. His representations are truthful, indicative of improved observation skills. The application of shadow and depth is well rendered in the paper bag and the knuckles of the finger.

The participant communicates his emotions and expresses himself showing creativity and originality in his work. The elements of art contribute to the gestalt of his drawings. The art works came out “right”.

His work is naturalistic and completed with effort and thought. Cast shadows however, could be more accurately applied for added character to the self-portrait. The participant grasped the concept of shifting to an altered state of awareness – being “at one with the work”. He was fully engaged in his work. He was successful at focusing on the objects on display for long periods of time.

Week 3





Although he is artistic, he was lacking in skill. After intervention he refined his skill through sketching. His artworks are intuitive and full of expression and rendered with pride. He has mastered drawing from observation.

Week 4

He enjoyed being given choices as he prefers to do things differently, expressing uniqueness and creativity.

Pre-intervention he drew from copying others, stored memory and not from observation (see Table 7 on page 74). However, I had the impression that he was still drawing from his memory at times.

Week 5

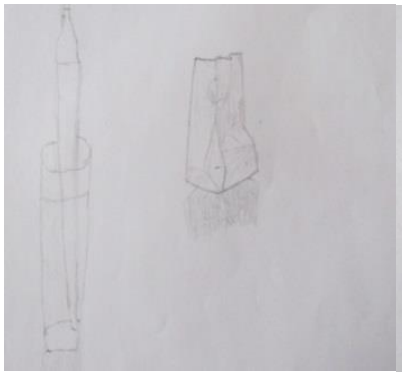
Participant 2

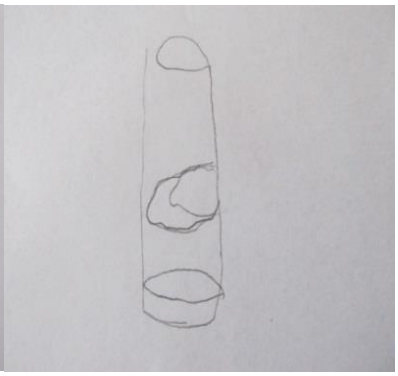
Childhood memory **Pre-intervention**

Participant 2 demonstrates an improvement in perceptual and visual literacy skills, which is evident in the accuracy of his representations of the observed object He previously mainly drew from copying (see Tables 6 and 7).

Post-intervention

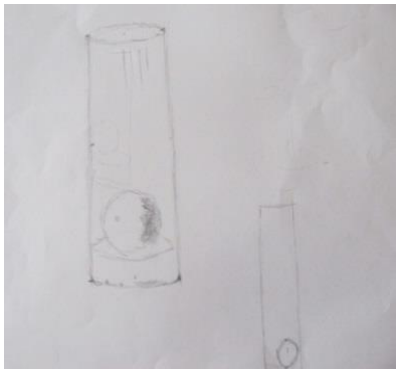
Week 1





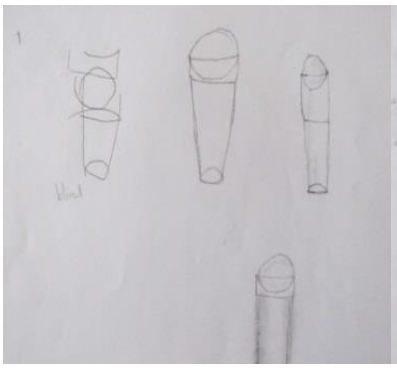
His representations now reflect realism done by drawing the structural elements of the object. His effective recording of light and shadow add to the gestalt of the drawing which is an indication of mastery of skill.

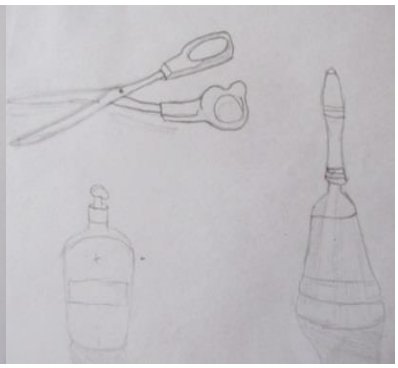
Week 2



This participant's artwork reflects outstanding performance. He gained much confidence and expressed himself through his work with enthusiasm and enjoyment. He accurately recorded light and shadow adding to the mood /metaphorical aspects of the drawing, demonstrating his creativity and artistic potential.

Week 3





He has mastered drawing the four perceptual skills, as discussed above. His self-portrait is truthful and realistic. The application of charcoal is very well applied. The participant grasped the drawing techniques fairly quickly.

Week 4

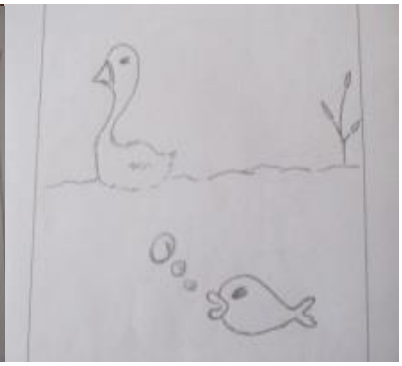
He was soon fully engaged in the drawing tasks, displaying an altered state of awareness. He was successful at drawing in Right-mode and developed greatly in skill. He drew with focused determination and substantial effort, beyond what was required of him.

Week 5

He was rewarded with remarkable similarity in representation. The participant continued to draw after the sessions with motivation and great success. He had learnt how to draw and to visually communicate his ideas. His work shows developed sensitivity, originality and creativity. He made many sketches before attempting to draw his final drawings, developing and refining his skills. The correct application of technique is evident in his drawings.

Participant 3

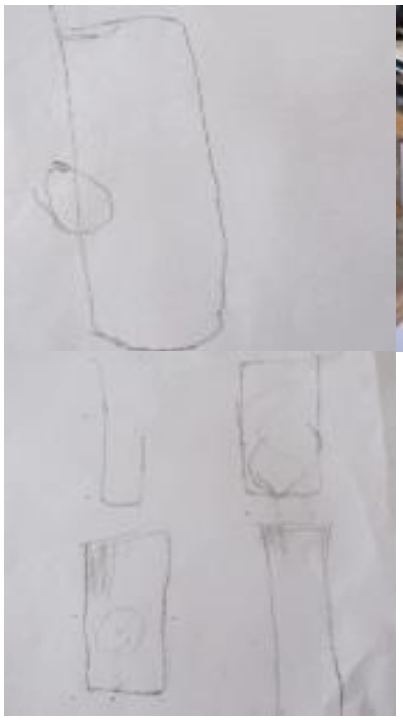
Childhood memory **Pre-intervention**



The participant's internal construction of perceptual and visual literacy skills is demonstrated in the accurate and creative interpretation of subject matter rendered when compared to drawings done pre-intervention. Her representations post-intervention reflect realism and artistic flair. Her representations are truthful – they look 'right'.

Post-intervention

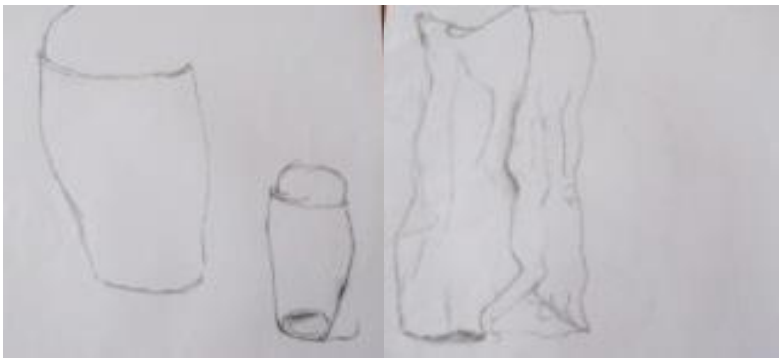
Week 1



The participant initially struggled with blind contour drawing and took longer than most of the other participants to master the technique. Once she had grasped blind contour drawing, she gained confidence and was soon fully engaged in the drawing task. Her art works reflect an extremely high level of intrinsic motivation and mastery. An excellent range of value is displayed. Highlights are well observed to bring a sense of reality to the form. The drawings display correct values of shadow in relation to the light source. Width and height proportions are accurate.

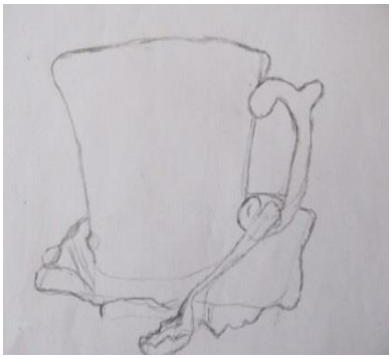
She clearly displayed "oneness" with her work and was fully emerged in the tasks.

Week 2



She accepted the challenge with a strong determination to succeed. Her representations were rich, intuitive and expressive. She did not show any fear of failure or self-consciousness. The feedback given to her sparked new inspiration and she continued drawing after the sessions were over.

Week 3



Participant 3 learnt how to draw realistically and to visually communicate information as observed in the objects, refining technique into sophisticated works of art. The elements of art contribute to the *gestalt* of the drawings. Correct proportional relationships in relation to the observed objects are recorded, leading to improved creativity and visual literacy.

Week 4

Her self-portrait displays an outstanding level of creativity, which adds expression and character to her work. She accurately recorded texture, light and shadow and the drawing displays correct values, however, contrast of light and shadow could have been more distinct.

Participant 3

Week 5

Application of charcoal to indicate shadow is well controlled in her drawing of the shoe. The artwork reflects an exceptional level of performance. Her drawings were of the highest quality in terms of skill. The participant was determined and systematic in her efforts to apply the techniques. She demonstrated a passion for drawing and worked extremely hard to develop her skill even though she has a natural talent for drawing.

Participant 4

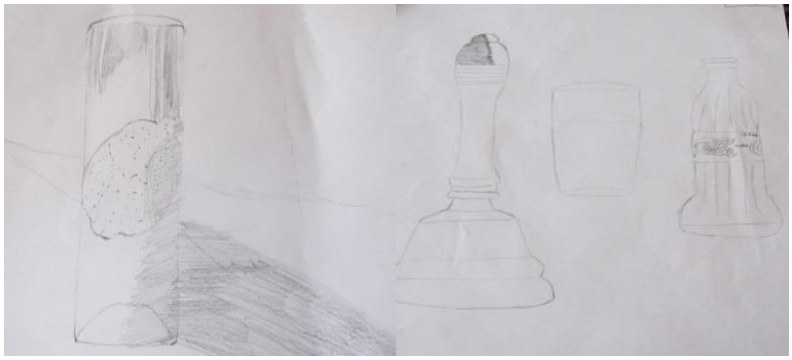
Childhood memory

Pre-intervention

An improvement in perceptual skills is observed. As a result the drawing reflects realism and exactness if compared to the observed object. The participant's drawing, after intervention shows the emergence of internally constructed perception and visual literacy skills, facilitated through direct instruction of drawing techniques

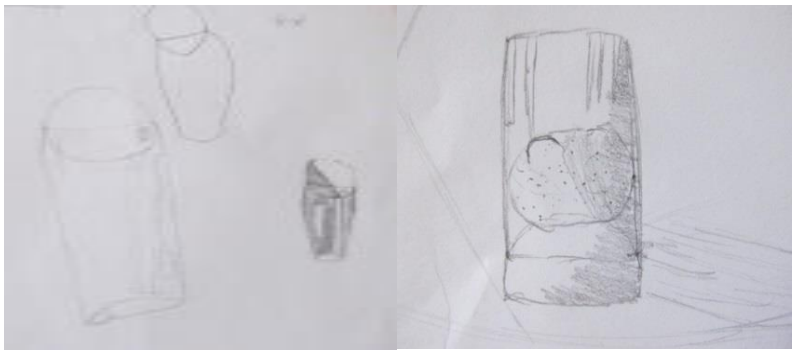
Post-intervention

Week 1



A good range of value is displayed but value contrast should show less contrast from light to shadow. In spite of the contrast, core shadows bring a heightened sense of reality to the form.

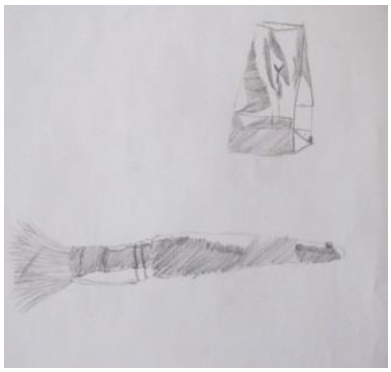
Week 2



Overall width and height proportions of objects were adapted but they contributed to the *gestalt* of the drawings.

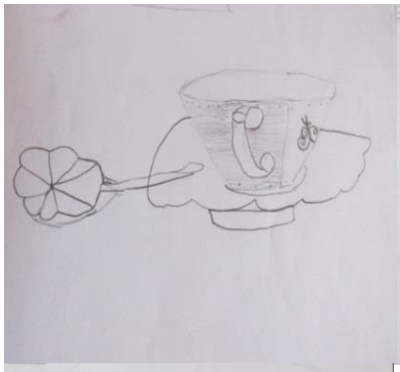
Particpants 4

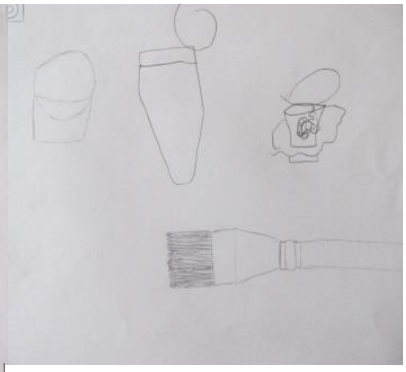
Week 2

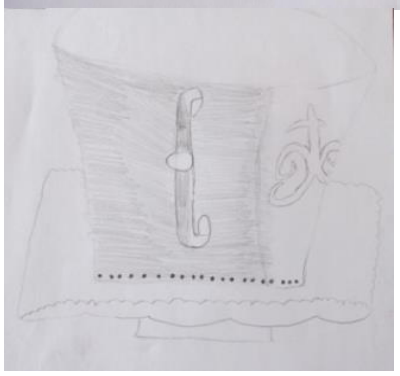


Application of charcoal is well controlled in his drawing of the dog (week 5). However, line quality needs more refinement.The edges seem indistinct in places. Nevertheless, the participant shows mastery of drawing skills.

Week 3



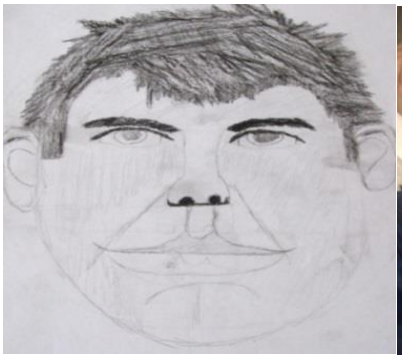




The participant drew with improved confidence, enthusiasm and enjoyment, an indication of developed intrinsic motivation and autonomy.

Participant 4 demonstrated an altered state of awareness. He was fully engaged in the drawing tasks. He accurately recorded the information from the objects and clearly enjoyed the drawing sessions. He focused his concentration for long periods on end. His drawings were self-expressive and spontaneous. He drew with motivation and great enthusiasm.

Week 4



Metaphorical communicative aspects are evident in the final products. His drawings are creative and self-expressive.

Week 5

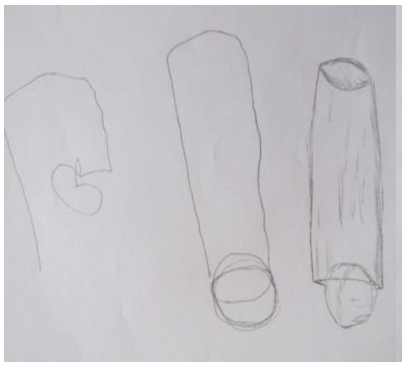
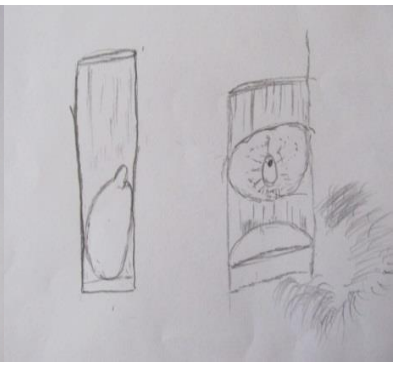
He took full advantage of the drawing sessions and improved greatly in skill. The participant mastered contour drawing. The participant accurately interpreted the subject matter or “facts” and showed good judgement. Correct proportional relationships are achieved and his representations are truthful. The art elements hang together to form a strong whole.

Participant 5

Childhood memory **Pre-intervention**

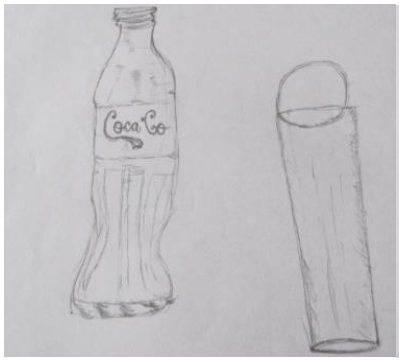

The accurate interpretation of the subject matter by this participant is an indication of the internal construction of perceptual and visual literacy skills.

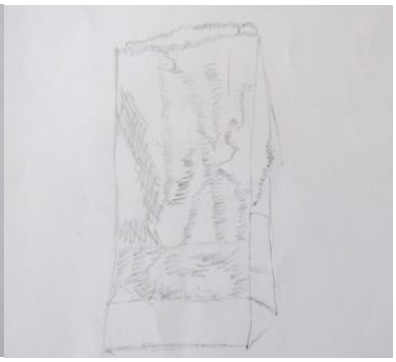
Post-intervention
Week 1

Width and height proportions are fairly accurate. Balance is generally correct. Line quality should be reinforced and value pattern is indistinct.

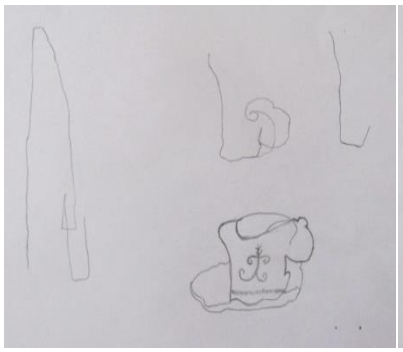
Week 2





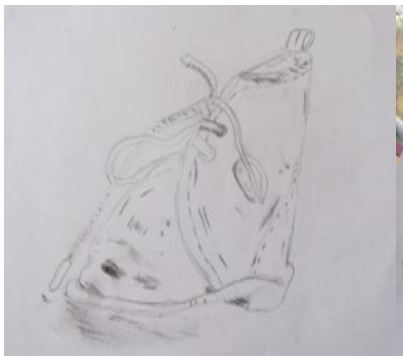
Although core shadows and reflected light are evident throughout, contrast of the light and shadow should be more distinct. The shadows should be a little darker.

Week 3




Week 4

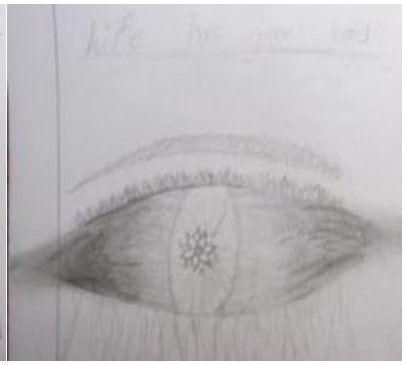

Week 5




Participant 5 struggled with contour drawing but soon grasped the concept (second session). She was fully engaged in the drawing tasks. Initially, she showed anxiety and seemed to make slow progress. She persisted until she had mastered blind contour drawing. She demonstrated improved perceptual skills and her drawings showed much improved skill when compared to her drawings before intervention. However, her drawing efforts improved greatly and at the end of the sessions she drew with great ease and confidence. The proportional relationships of *Participant 5's* self-portrait contribute to the *gestalt* of the drawing, indicating that she has mastered the perception of edges and space. However, the drawing is too lean. The recording of light and shadow needs to be reflected accurately. The end result though, looks 'right", displaying creativity, evident from the expression and unique character displayed in the drawing. The application of the elements of art contributes to the gestalt of the drawings. Correct proportional relationships in relation to the observed objects still needs work but her efforts resulted into truthful and pleasing representations.

Participant 6

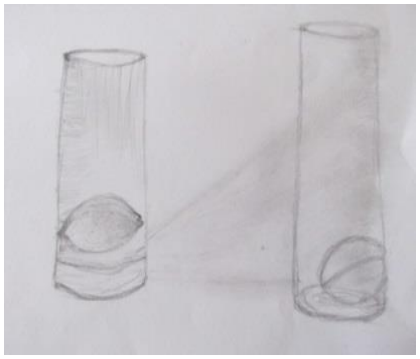
Childhood memory **Pre- intervention**



The participant's artwork is individualistic and created with effort. She added feeling and mood to her pre-intervention drawing. She drew an eye, with a flower as the pupil in the middle, and wrote a caption, "Life has gone bad" above the drawing.

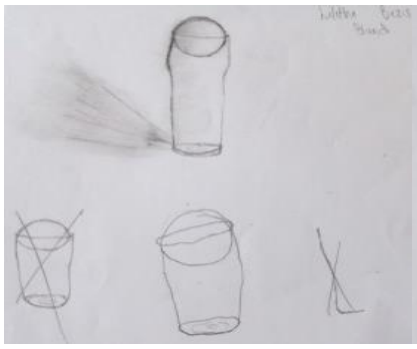
Post-intervention

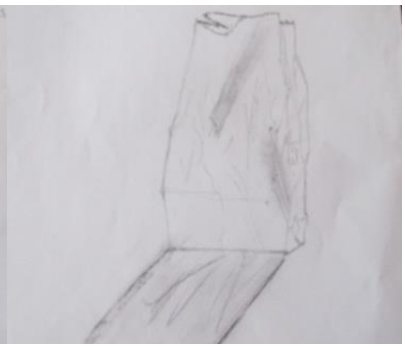
Week 1



The internal construction of perceptual and visual literacy skills is demonstrated in the accurate interpretation of the subject matter. Width proportions are accurate. Balance is correct. A full range of value is displayed and mid tones are subtly applied. Core shadows and light are accurately applied.

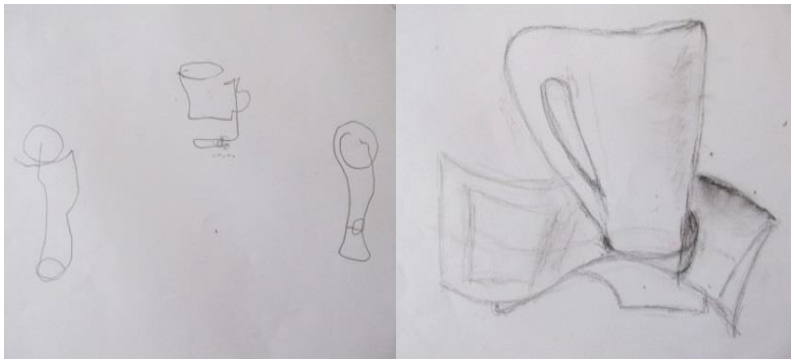
Week 2





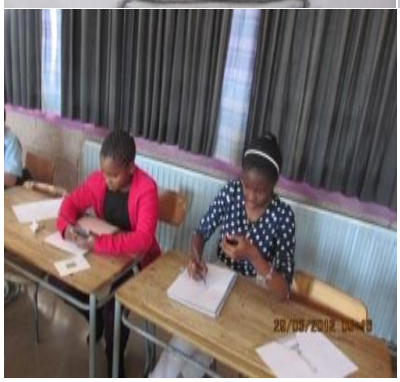
Application of charcoal is well controlled when used. The elements of art (recording of texture and line) are strongly enough applied to add to the *gestalt* of the drawing, resulting in the drawings looking "right".

Week 3



Participant 6's work shows correct proportional relationships, in relation to that of the observed objects. She improved hugely and her representations look truthful. This learner has learnt how to draw. She has developed visual perception and transformed and refined her ideas into works of art.

Week 4



When drawing her face, she anxiously exclaimed, "I cannot see my eyelids!" However, her self-portrait is unique and the eyes are expressive. Proportions are balanced and mostly accurate. Shadow and light on the face needs accurate application. Some areas need to be smoothed out as the edges are too rough. In spite of the shortcomings, the participant displayed creativity and intrinsic motivation, enthusiasm and enjoyment, during the drawing sessions.

Her work was done with focused determination to learn how to draw. She benefited greatly by attending the drawing sessions. She soon mastered the techniques. As a result she grew in confidence and showed great pride in her work.

Week 5

She grasped the concept of an altered state of awareness. I observed how fully engaged she was in her drawing. She seemed to be unaware of those around her. She drew for long periods on end, focusing her attention on the objects displayed.

Her success in the drawing sessions flowed into facets of her social life. I observed that she seemed to be more energised and confident in her relationships with others after completion of the data collection sessions.

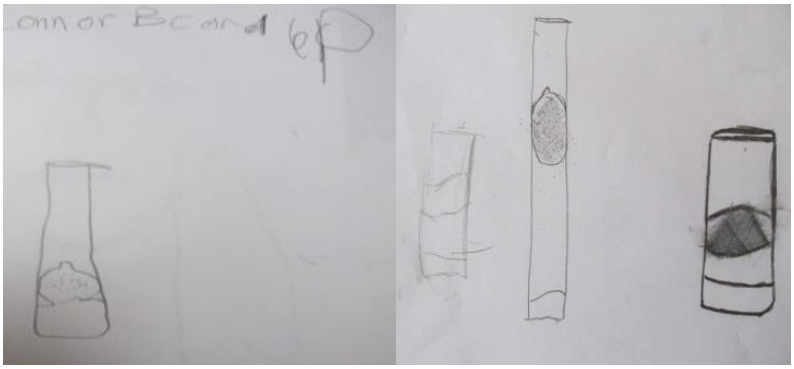
Participant 7

Childhood memory **Pre-intervention**

Although this participant made great progress and some internal construction of perceptual and visual literacy skills is evident in the representations, his drawings still need work.

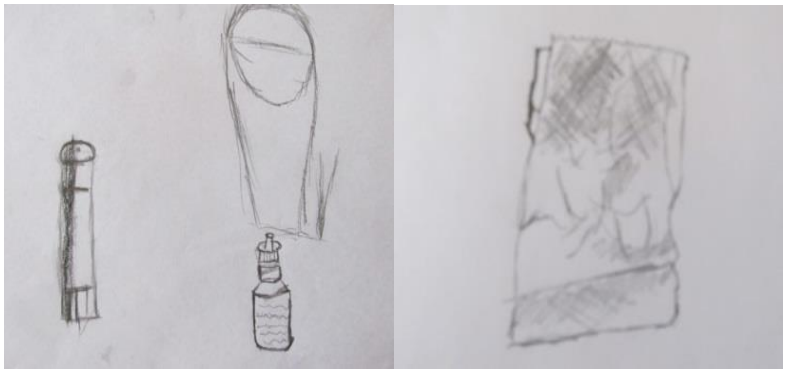
Post-intervention

Week 1



He has gained much confidence and was more enthusiastic when required to draw, compared to his level of confidence and enthusiasm before the drawing sessions started. He also shows improved creativity if compared to his drawings before intervention. His drawings look more real.

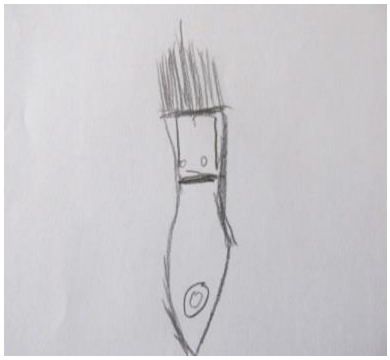
Week 2



The participant applied the elements of art (line, shape and texture) to record the structural elements of the object and his drawing displays character and improved self-expression. His drawings reflect performance towards mastery level.

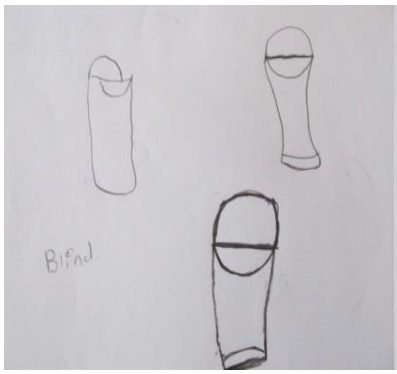
Participant 7

Week 2 continue



He effectively communicates the themes of the subject matter. The participant shows great improvement in drawing skill, indicating refinement of visual perception.

Week 3

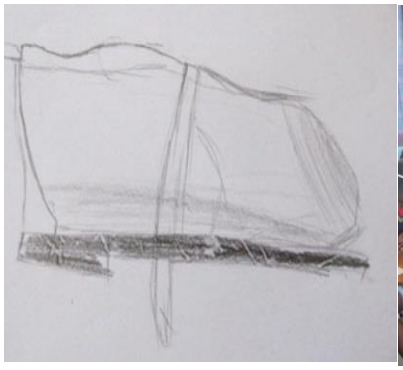


Glasses with Styrofoam balls were used for the participants to make preliminary sketches before starting to draw the cup and saucer. The value pattern, that is, the recording of light and shadow, of the drawings is indistinct. Core shadows should be dark to emphasise the light. The edges are too rough and unclear in places and need to be smoothed out. Some of the edges in the cup and self portrait appear unfinished. However, the participant has mastered contour drawing sufficiently.

Week 4

Participant 7 did not render a realistic reflection of himself. However, he did manage to create a strong resemblance. Although light and shadow need to be accurately recorded, the end result, is pleasing. The facial features are excellently portrayed and the eyes are expressive. A good effort is rendered.

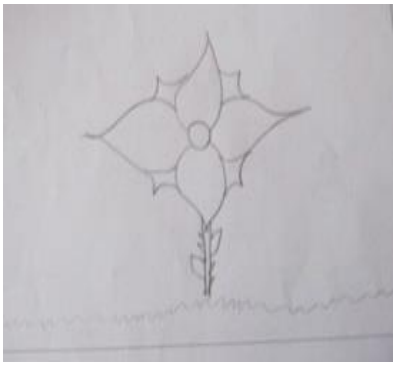
Week 5



Observing *Participant 7*, I noticed that he did not fully embraced the concept of shifting to a particular way of seeing – experiencing an altered state of awareness. He did display signs of experiencing "flow", but was self-conscious when watched. He was not fully relaxed and at times seemed to experience anxiety and frustration as well as embarrassment. However, there was a dramatic change in his drawing skills. In the course of the drawing sessions, he gained confidence and produced greatly improved drawings.

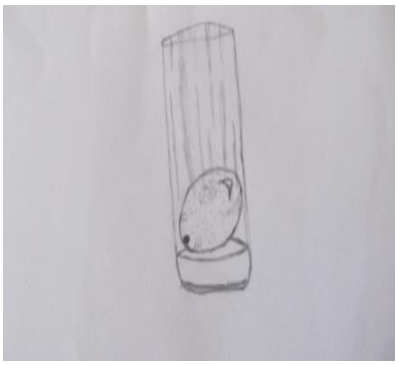
Participant 8

Childhood memory **Pre- intervention**



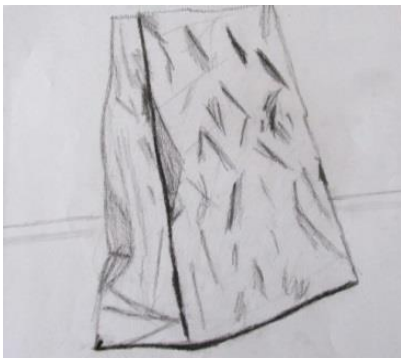
The representations of *Participant 8* demonstrate drawing competence. Compared to her drawings done before the intervention, the internal construction of perceptual and visual literacy skills is demonstrated in the accurate interpretation of the subject matter of her post-intervention drawings.

Week 1



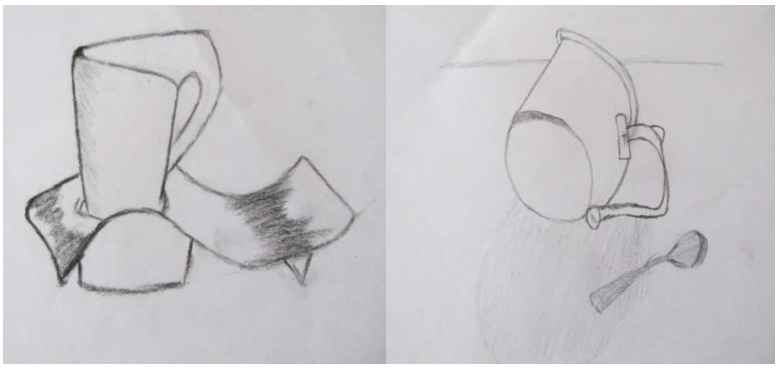
Her drawings reflect exactness if compared to the observed objects. *Participant 8* soon mastered the techniques and worked independently. She grasped the concept of shifting to a particular way of seeing. It was clearly evident that she experienced an altered state of awareness – being at one with the work.

Week 2



She demonstrated “flow” by focusing on the objects for extended periods of time. She remained calm throughout the session and did not show signs of tension or embarrassment.

Week 3



Week 4

Week 5

She has mastered drawing from observation and has learned how to draw realistically. She has successfully applied the measuring technique, evident in the accurate proportional relationships and balance displayed in drawing the features of her self-portrait. The elements of art contribute sufficiently to the *gestalt* of the drawing. Her drawings looks "right".The eyes are expressive. However, the recording of light and shadow require more work. Cast shadows should be added and the lines of the mouth and chin need softer edges. With more practice added to her newly acquired skill, she might perform at a higher level. Cast shadows and mid tones could also be more naturally applied in her drawing of the paper bag. (see week 2).

Application of charcoal however, is excellently exhibited in her drawing of the toddler's shoe. Her drawing was rendered from a single view. Her work demonstrates an improvement in perceptual skills. She added aesthetic significance to the shoe by her creative recording of light and shadow. With more practise added to the acquired knowledge and skill, she will be able to refine her work and develop her creative ability to the full.

What follows is a graphic interpretation of the scores achieved by the participants' post-intervention drawings based on the criteria of the rubric (**see Table 4).**

Criteria	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6	Participant 7	Participant 8	Score out of 24
1. Accuracy: *Gestalt*/Realism	3	3	3	3	2	3	2	3	**22**
2. Proportional relationships: Sighting	3	3	3	3	3	3	2	3	**23**
3. Art elements: Line, texture, light and shadow	3	3	3	2	2	2	2	2	**19**
4. Technique: Blind contour drawing	2	3	3	3	3	3	3	3	**23**
5. Creativity: Expression/character	3	3	3	3	3	3	2	3	**23**
Total out of 15:	**14**	**15**	**15**	**14**	**13**	**13**	**11**	**14**	**22**

Figure 16 Analysis of individual scores of participants' drawings.

Five assessment criteria were used to assess the pencil drawings done by the participants.

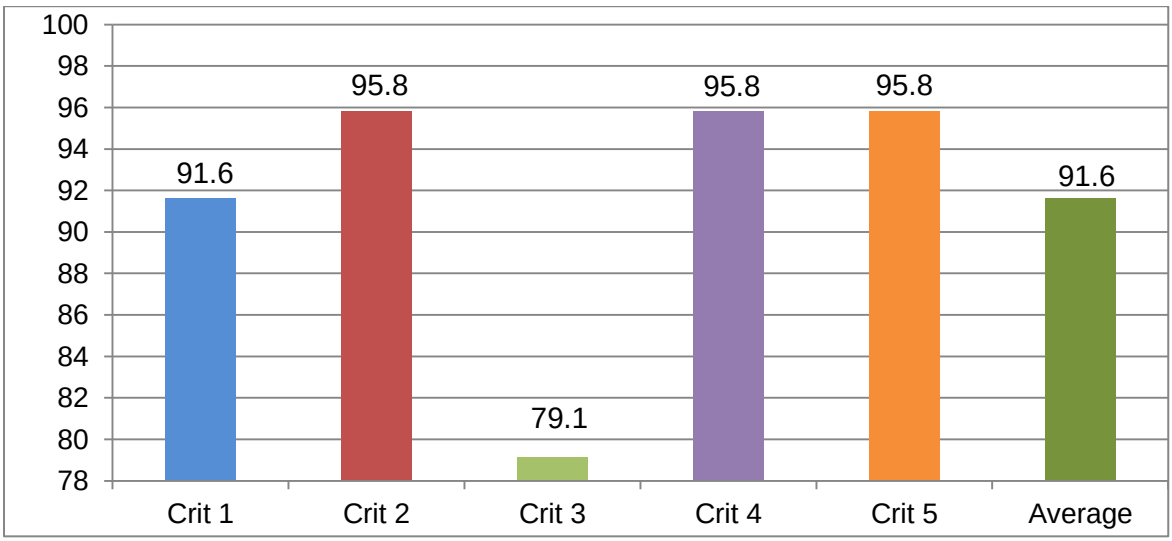


Figure 17 Assessment criteria: (1) Accuracy (2) Correct proportion (3) Line, light and shadow (4) Technique: Blind contour and negative space drawing (5) Creativity/Metaphorical aspects.

Figures 16 and 17 present the assessment results of the pencil drawings of the participants. Of the participants, 91.6% mastered drawing realistically, achieving a high degree of similarity to the observed objects. The participants were excellent with drawing accurate proportions. Of the sample, 95.8% mastered the “sighting” technique. They struggled with recording the correct value: light and shadow and texture of the objects. Only 79.1% mastered the correct application of the art elements – producing quality lines and accurate recording of light and shadow. Blind contour drawing and drawing negative spaces were mastered by 95.8% of the participants. A total of 95.8% of the participants presented creative work.

The results reveal that recording appropriate value - light and shadow to create depth and producing quality lines - are a weakness in the participants’ drawing skills, because 20.9% of the participants had not mastered this skill adequately.

Another finding of this analysis is that the ability to draw accurately still needs practise. As a whole, 8.4% of the participants had not fully mastered the perceptual skills underlying observation drawing.

4.5 Post-intervention: Reflective questionnaire

The questionnaire involved six multiple-choice questions. The purpose of this questionnaire was for the participants to examine and judge their progress after skills intervention.

Of the participants 87.5% believed that they had made great improvement in learning how to draw, and 12,5% needed more practise in learning how to draw. 50% perceived their drawings as looking real and the other half felt that their drawings looked almost real. 75% benefited the most from improved observation skills. “Sighting” was deemed the most beneficial skill by 37.5% of the participants. 75% perceived that the recording of light and shadow make a significant difference to their drawing and 25% chose blind contour drawing as adding the most value. The technique experienced as the greatest challenge was blind contour drawing. One quarter struggled to master the sighting technique and another 25% chose the recording of light and shadow as challenging.

After examining their drawings, the majority of the participants felt more competent in drawing after the intervention had taken place. They noticed the improvement in their drawings and described their work as more realistic. Participants benefited mostly from improved observation skills and found sighting and the recording of light and shadow as most rewarding. The responses of the particpants indicated that the intervention of direct instruction of drawing skills had a positive effect on drawing competence.

The drawing methodology seemed to be effective in the teaching and learning of drawing and did justice to Edward's (1982) claim, that nearly anybody can learn how to draw through the techniques of observation drawing. However, not all participants fully mastered the four perceptual skills on which the drawing methodology was based. Therefore reflecting on the drawing process and their art works were important for the participants to recognise areas of weaknesses.

Although the recording of light and shadow was identified by the participants as making a significant difference to the drawings, it was also noted as an area of weakness. In many instances value patterns were indistinct. Even though charcoal pencils were supplied for the purpose and their use was demonstrated, few made use of them. The application of value patterns is a 'fine art' that needs deliberate practice and refinement. Nevertheless, there were a few good examples of the rendering of tone to create the illusion of form and depth.

Recording perspective and drawing any form or background need depth. The background must appear distant, relative to the foreground. Recording of light and shadow could be learnt through studying the works of masters like Leonardo da Vinci and Michelangelo. I have placed examples of their drawing works in the Teacher's resource pack (see Appendix N). These two artists gave value to drawing as an art form. Studying how the different values and other techniques in the drawings of famous artists are applied is an essential part of studying art. More practice in crosshatching skills is required in order for the participants to learn and apply different line strokes.

Participants initially struggled to adapt to the skill of blind contour drawing, practised to acquaint themselves with drawing from observation and not from memory. Edwards (1982) states that previously stored knowledge prevents drawers from creating realistic representations. Sketching to practise the various skills, leaving the incorrect lines on paper makes the learning process more effective.

An improvement in confidence greatly enhanced their self-esteem. This observational or perceptual method of learning how to draw takes a skills approach to instruction and assumes that drawing can be taught much like learning to ride a bicycle. The ability to render accurate representations is a highly regarded skill. Edwards however, emphasises that realistic/naturalistic drawing is a means to an end. Once able to draw, self-expression can be fully explored and confidently so. Achieving naturalism, however, is still seen as the height of drawing development (Edwards, 1982).

This method of learning and teaching drawing can be used to inform a methodology for schools with the emphasis on the learning and teaching of *basic* drawing skills. Applying Bloom's psychomotor domain, which relates to the development of manual tasks, it is assumed that one has to master

one category before you can move to the next level or category. The first level – *imitation* - can be translated into following or copying the action. This was achieved through the practical demonstrations done by the research assistant as well as the Power Point presentation. The second level – *manipulation* – lies in performing the instructions. *Precision*, the third category is achieved by perfecting the skill through practice. *Articulation*, the fourth category is the integration of the techniques and the last category – *naturalism* – involves unconscious mastery (DoE, 2011).

The data analysis concludes with a discussion of the data collected under the themes mentioned above:

4.6 Discussion of post-intervention data

4.6.1 Theme one: Internal construction of perceptual skills

"A truly confident line comes from knowledge and 'mileage'." Bagetta (2012, p. 1)

Bagetta (2012) suggests that the construction of visual perception or drawing skills, originates from understanding and skill gained from experience. Knowledge gained by the participants from the Power Point presentation, personal demonstrations by the research assistant and practising the techniques during the drawing sessions provided them with skill, gained from "doing" ("mileage") that led the participants to draw with confidence by the end of the intervention sessions.

Drawing from the theoretical framework of my study I planned the intervention on Piaget's belief that the construction of perceptual skills forms part of cognition and that visual perception plays a role in the development of intelligence (Wachs, 1981). Visual perception is known to be limited and deceptive. Optical illusions however, could be challenged by knowledge of the *structural* elements of objects. The conceptual framework of my study was built on the presumption that through applying the techniques of drawing from direct observation, drawing skills develop through the construction of perception skills which are an inherent part of cognition.

Piaget's offers a remedy for "learning-related visual problems". He suggests that one should start by focusing on the learner's eye movement and focus, imagination and thinking. In practising observation drawing techniques all these aspects were addressed. He believes that if a teacher changes a task it creates a "disequilibrium" which reveals the difference between what the learner knows and what he or she does not know. I designed studio art lessons, challenging learners to overcome the disequilibrium by introducing a new way of drawing through the practice of blind contour drawing, sighting and drawing from observation to record the structural elements of an object. I challenged and encouraged the participants to engage in high-level thinking to overcome

their underdeveloped drawing skills. Wachs (1982) describes high-level thinking as the active use of existing knowledge that leads to the formation of new knowledge. The participants started with stereotypical representations and through conceptualisation of the drawing techniques they ended by creating naturalistic drawings.

For Piaget all knowledge, including visual knowledge, has an action character and every action leads to "reality". We thus learn by "doing". As the participants applied the techniques and made rough sketches they started to learn how to draw. By revisiting the drawing developmental stages, I established their current drawing stages. Through the intervention of drawing techniques (a manipulation), higher-level thinking was stimulated and competence (new knowledge or new ways of understanding drawing), perception (visual knowing) and visual literacy (visual grammar) were developed and internally constructed.

Mayo (2012), corresponding with Piaget, describes the artistic process as a "complex navigation and triangulation of a series of thought processes" to create an art work. The participants thus developed their thinking while implementing the techniques. Comparing their unmediated drawings with their art works post intervention, above and also in appendix K, the participants demonstrated greater skill, moving away from stereotypical representation.

4.6.2 Theme two: Creativity

"The desire to do something

because you find it deeply satisfying and personally challenging

inspires the highest levels of creativity

whether it's in the arts, sciences or business."

The intrinsic motivation principle of creativity.

Amabile, 1996 in (Amabile & Fischer, 2009, p. 2).

Amable (2012, p. 2) affirms that people will be most creative when they feel motivated above all by interest, enjoyment, satisfaction and the challenge of the work itself. Amabile confers that contextual factors such as the nature of the task and how it is presented to an individual, play a significant role in the development of creativity. Creative educators, who are setting up a challenge and allowing autonomy to do the work, can stimulate creativity. According to Amabile, the creative process can be thought of as a maze that the problem-solver has to navigate and to then get out of the maze by finding a creative solution to the problem. The participants seemingly constructed new skills founded on creative solutions to overcome stereotypical drawing. According to Edwards (1982) the

purpose of achieving realism is to enhance creativity and self-expression. In achieving realism in their artworks, participants thus developed their creativity.

Amabile (2012) argues that creativity is based on skills and intelligence. Knowledge and skill in a particular domain thus lead to maximum creativity. Amabile's componential theory of creativity is based on the assumptions that there is a continuum from low, ordinary everyday life levels of creativity to the highest levels found in historically significant inventions in science, performances and works of art.

Aspects of Amabile's theory of creativity, are reflected in the work of Pink (2009) when he says that mastery, autonomy and intrinsic motivation play an important role in developing drawing competence. According to Pink (2009, p. 92) a sense of autonomy has a powerful effect on individual performance and attitude. Albert Einstein in Amabile (1998, p. 80), linking creativity to motivation, describes intrinsic motivation as the "*enjoyment* of seeing and searching". To enhance creativity, I created a different setting, to that of the classroom attended during normal school hours. The atmosphere during the drawing sessions was informal and relaxed, with baroque music playing in the background. Paintings done by the research assistant were displayed to steer away from the "school" atmosphere where the emphasis is on results and control. To satisfy the participants' need for autonomy, the research assistant clearly communicated a goal for each session. However, they were allowed to complete the drawing tasks their own way in terms of how they understood the drawing techniques. If they needed help the assistant was there to assist. The assistant offered useful information, praise and feedback to instil confidence in their creative ability but none of us attempted to control the process. The participants were naturally quiet during the drawing sessions.

The belief, originating from the late 19th and early 20th century Western art education that realistic drawing might stifle creativity, is in contradiction with the findings of my research which demonstrated that drawing techniques do not stifle creativity but that skills training in fact enhanced creativity.

In line with the results of my intervention, Flannery & Watson (1991, p. 66) also studied the perceived competence of children's drawing during the middle childhood years and found a direct relationship between competence and the development of drawing skills. Greater perceived drawing competence was related to *higher* levels of realism and originality. Greater emphasis is therefore suggested on the *timely* development of foundational drawing skills to alleviate and challenge a middle childhood crisis in drawing. Findings reveal that the levels of creativity and self-expression are enhanced through the direct instruction of drawing techniques.

The selected sample of originally thirteen participants attended the data collection sessions throughout the July holidays. Only the last week, the first week of the new school term, did five of them not attend, due to extra-curricular responsibilities. Judging from their persistent attendance, they had to be intrinsically motivated to master the skill of drawing, given the fact that they could withdraw their participation at any time.

4.6.3 Theme three: Cognitive-shift

"How beautiful it is, that eye-on-the-object look".

W. H. Auden in (Pink, 2009, p. 109)

To analyse the evidence of a cognitive-shift I turned to Edwards (1982) who describes right brain processing or a cognitive-shift as "suspension of time" where no attention is paid to the spoken word (see figure 18). Suspension of time constitutes an experience of immense interest, of feeling *at one* with whatever is concentrated on. In 1990, Csikszentmihalyi introduced '*Flow': The Psychology of Optimal Experience* and described how this pleasurable state can be controlled by confronting and pursuing challenges or tasks with determination.

A challenging activity requires skills and should match ability. When confronted with a challenge, we focus on the task at hand. The activity becomes spontaneous, almost automatic when action and awareness merge. Time seems to stand still resulting into a "flow" experience. Flow is similar to Edwards' cognitive-shift theory in terms of suspension of time while being deeply absorb in the task at hand. No fear of failure or any self-consciousness is experienced; sense of time is distorted and the activity becomes "autorelic" - the "doing" itself is the reward. Not being able to measure or quantitatively assess, I used an observational checklist (Appendix H) to assist me in recognising that, which I am experiencing as a cognitive shift when drawing, based on my own experience of "flow" to record evidence of the participants' levels of engagement in their drawing tasks while observing them on site. The participants were unaware that I was studying them with the purpose of looking for evidence of full engagement. I used my sensory resources to note and record evidence of a right-mode shift. Even though my presence might have had some influence on how relaxed they were while drawing, there was enough evidence of them being absorbed in their drawing tasks.

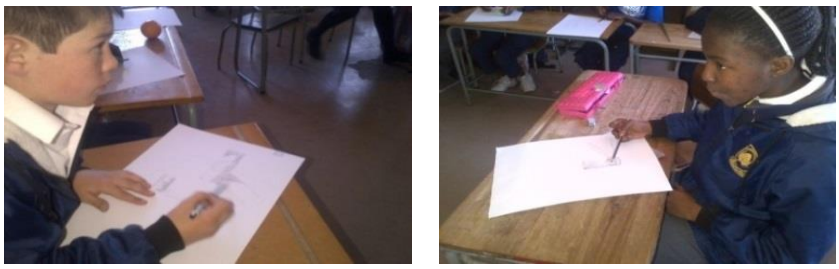


Figure 18 Examples of a cognitive-shift.

Kantrowitz (2012) paints a vivid picture of drawing, connecting drawing with cognition, by describing the act of drawing as the "creation of a physical space to play with our thoughts". Kantrowitz confirms what Edwards professes namely that the processing of abstract tasks in the brain "overshadows or impairs verbalisation". In other words, the act of drawing is taking us "beyond words". This was one of the aspects I considered when looking for the manifestation of a cognitive shift. I found that for most of the time, the participants were very quiet yet fully engaged, lost in the drawing tasks. The *silence* was in stark contrast to their usual behaviour during normal school hours where discipline could at times be challenging. The natural silence during the sessions was probably another indication of "flow", which demonstrated the intense concentration practised amongst them when challenged to "get the picture right".

The purpose of blind contour drawing in observation drawing, according to Edwards (1982), is to bypass the "symbol system", as referred to in the drawing development stages theory. Not being allowed to look at the drawing or naming and categorising an object, force the focus from the left to the right mode of perceiving. In blind contour drawing the concern is for "rich, deep, intuitive" recordings of perception with the purpose of steering away from stereotypical representations which are processed in the left mode of perception. Not being allowed to look at the drawing sheet for the most part forced them to trust their perceptual instincts. The reward was much improved naturalistic representations compared to their pre-intervention entries. A 12-year old participant, who perceived himself as having very poor drawing skills, produced a stick man as his best effort, pre-intervention, was speechless and focused when he drew the cup and saucer with great similarity to the observed object.

In conclusion, Pink (2009, p. 130), describes "flow" as a "deep sense of engagement and the use of the brain and body to probe and draw feedback from the environment in an endless pursuit of mastery".

4.6.4 Theme four: Drawing as an artistic end

"The arts teach perception of form;

the aesthetic configuration of phenomena such as cloud formations,

the qualitative features of a tree, or the patterns of shadows upon a wall".

Eisner (1998, p. 37)

According to Eisner, art cultivates aesthetic awareness and claims the transformation of ideas, images and feelings into an art form. The ends are distinctively artistic. Eisner (1998) and Hetland & Winner (2001) suggest that art's unique contribution to education is that it facilitates artistic literacy in children, teaching them "what to see, hear and look for" in an art work. This includes the ability to discuss an art work with insight, sensitivity and intelligence. Receiving direct instruction in drawing and perceptual skills at school is a way of ensuring that all children are sufficiently literate and exposed to the fulfilment that lies in the process of the art experience itself.

According to Koopman (2005, p. 8), fulfilment is achieved by embracing worthwhile activities and developing them to completion. The very act of creating and receiving art is a fulfilling experience that contributes to feelings of happiness and well-being in humans. Koopman (2005, p. 6) describes these experiences as having an existential nature, that touches the core of our existence and that really makes life worth living. The arts, as one of the very few sources of an existential nature, offer a wide range of fulfilling experiences, easily available to people with adequate artistic literacy.

Reduction of time allocated for art experiences and the justification of arts education by appealing to its positive outcomes for knowledge and skills, not typically related to its nature, has placed the arts in a vulnerable position. A well-developed education system should offer sufficient exposure to the arts because most children are unlikely to receive arts training, other than at school.

Through arts-based research as methodology, I was offered a way of researching art as an end in itself to promote its real meaning. It allowed me to discuss the participants' art works in order to answer my research questions and to inform a drawing methodology for Visual Arts. Drawing allowed the participants to identify with the subject matter, to explore freely and innovatively and to experience feelings of fulfilment.

After receiving instruction on perceptual skills, the participants demonstrated their knowledge and skill by drawing the objects displayed with great similarity. I examined and evaluated their work to assess the effect of the intervention on their drawing competence. Judging the results and the effects of the intervention and comparing them with the unmediated pre-intervention drawings, it was evident that they had made noticeable progress in developing visual perception. Observing

them while drawing; experiencing their enthusiasm and recording their timeous arrival for sessions, led me to believe that they were experiencing fulfilment in the aesthetic experience as an artistic end.

The outcomes of the assessment were assimilated to inform a drawing methodology with the purpose of averting the necessity for intervention, through the direct and timeous instruction of relevant perceptual skills starting at pre-school level. The claim of Edwards (1982) that almost anybody can learn how to draw through observation drawing techniques was tested and found to be valid. The findings of my study are beneficial to drawing practice for the development of artistic skill through the instruction of appropriate drawing techniques, applied in the formative years of children to benefit them later on in life. This section concludes the discussion of how I analysed the data.

4.7 Summary of research findings

My main research question was stated as follows: **How do observation drawing techniques, used as intervention, affect the drawing competence of middle childhood Visual Arts learners?**

The effectiveness of observation drawing techniques was demonstrated by the drawings of the participants, presented earlier on. In comparing the *before* (stereotypical) and *after* (realistic) drawings, the development and construction of drawing and perceptual skills were evident. Improvement in observation skills requires accurate recording of visual information, finding solutions to (drawing) problems and improved concentration (focusing for a longer period of time). The participants' drawings showed a high degree of similarity to the observed objects.

From the evidence provided it was clear that observation drawing techniques contributed significantly to the drawing competence of the participants who believed that they had no talent for art. The participants' realistic representations, post-intervention were an indication that they had overcome stereotypical drawing, justifying Edwards (1982) claim, mentioned earlier, that nearly anybody can learn how to draw using these techniques.

The observation drawing techniques set as criteria in the rubric were successfully implemented in their art works. The participants applied their skill and understanding of the drawing techniques to draw new and unfamiliar objects. This study provided justifiable evidence that drawing competence of middle childhood learners can be improved through the intervention of observation drawing techniques**.**

The following sub-question supported the main question: **How can the findings of the afore-mentioned question serve the needs of Visual Arts education by informing a methodological framework for observation drawing?**

All the data presented in this chapter, are evidence of the effectiveness of observation drawing as drawing methodology. The assimilation of my findings was significant to translate the participants' drawings into a pedagogical tool, useful to inform a drawing methodology that could stimulate creative drawing practice in Visual Arts.

I propose the following methodological framework for drawing to be an inherent part of the Visual Arts curriculum. Although the focus of this study is on middle childhood learners the framework can be implemented from pre-school onwards. I designed the framework and placed it in "Lesson plan" form based on the requirements of the National Curriculum Assessment Guidelines for Visual Arts (DoE, 2008b).

I included the four learning outcomes of the arts curriculum and added the skills and values as well as assessment methods and techniques that are applicable. I also added the skills integration with other subjects. Artistic and visual literacy is developed, drawing and perceptual skills are applied for learning transfer and to extend the boundaries of memory (Eden & Potter, 2001; Kantrowitz, 2012; Mayo, 2012).

What follows is my unique contribution of enriching the existing literature, grounded in the conceptual framework of my study. I included and recorded information in great detail, for the benefit of the teacher, who might also have to learn how to draw. The skills I included in the framework are drawing specific and derived from the literature review of my study. It is important for teachers to formally assess the learners' art works and to record their progress for real learning to take place. I added methods to address and support learners with special needs and barriers to learning. Teaching aids are included and a time frame is indicated for each skill. The framework can be adapted to suit the understanding of the age group and phase of the learners. The basic principles based on the four main perceptual skills of observation drawing, however, remain the same. As discussed in chapter 3 under the heading "Drawings and objects", the four perceptual skills, underlying Edwards' (1982) cognitive-shift model are: perception of edges, perception of spaces, perception of light and shadow and the perception of spatial relationships. I designed a rubric, based on these skills to technically analyse the post-intervention drawings. As discussed, I added a criterion to analyse the metaphorical aspects of the artworks to complete the evaluation. This rubric is included in the teachers' resource pack along with a PowerPoint presentation (see Appendix N for the teachers' resource pack). The proposed drawing methodology is presented next.

4.8 Methodological framework

A methodological framework for observation drawing - Designed by Leana Pretorius

Definition of observation drawing: A technique for learning basic drawing skills, done by close observation of an object and then drawing directly from the structural elements of the object.

Lesson plans for teaching basic drawing skills (see Appendix N for the PowerPoint presentation).
Target group: Grade 6 and 7 (content to be adapted according to ages and phases and prior knowledge of the learners).
Time period: 5 - 7 hours

Learning outcomes

1. Creating, interpreting and presenting	The learner will be able to create, interpret and present an *authentic, original realistic drawing of an object.*
2. Reflecting	The learner will be able *to reflect critically on artistic* and cultural *processes*, products and styles in past and present contexts.
3. Participating and collaborating	The learner will be able to demonstrate personal and interpersonal skills through individual and group participation by *creating in 2D and 3D and by improved visual literacy*.
4. Expressing and communicating	The learner will be able to analyse and *use drawing as visual communication and self-expression tool.*

The transfer of perceptual skills to learning in other subjects (developed through drawing) is recognised.

Skills integration:	Languages, Natural Sciences, Technology, Social Sciences, Life Skills, Mathematics

The drawing techniques are based on the following perceptual skills.

Knowledge and skills *(Edwards, 1982, 1987, 1992)*
Artistic skills

Perception of edges and spaces: Blind/modified contour drawing
Perception of spatial relationships: “Sighting” for proportional correctness
Perception of light and shadow: Recording of art elements: line, texture, light and shadow
Perception of spaces: Drawing negative spaces
Translate ideas or concepts into a visual form

Artistic skills need nurturing. The following aesthetic skills are developed through participation in the drawing process.

Aesthetic skills *(Edwards, 1982; DoE, 2005; Eisner, 1998)*

Self-expression
Heightened creativity
Visual and artistic literacy
Artistic appreciation

Drawing is not just a "fun" subject. Cognitive skill developed through observation drawing techniques are listed below.

Cognitive skills *(Amabile, 1983; Eden & Potter, 2001; Edwards, 1982; Mayo, 2012, Piaget, 1964)*

Concentration	Comparing
Higher order thinking	Decision making
Communication	Planning
Perception	Recalling of information
Problem solving	Storing of information
Creative thinking	Describing

The arts offer fulfilling experiences that add value to human life.

Values and attitudes *(Pink, 2009; Koopman, 2005; Kover & Worrel, 2010; Piaget, 1964)*

Fulfilment	Confidence
Compassion	Self-discipline
Respect	Judgement
Freedom	Intrinsic motivation
Autonomy	Sense of humour
Neatness	Conscientiousness
Well-being	Self-knowledge
classifying	Encoding
Cognitive shift	Observation
Illustrating	Categorising
Extended vocabulary	Measuring

It is important to formally assess learners' art works and to record their progress for 'real' learning to take place.

Assessment
Methods of assessments

Observation checklist
Reflection checklist
Rubric
Examination and test

To facilitate learning of the drawing techniques the following methods can be applied.

Assessment techniques and tools

Demonstration
Drawings of master drawers
Class discussion
Power Point presentation
Assignment

Record the learners' marks and keep their artworks for self-reflection and study.

Recording

Class list/mark sheet
Art portfolio

Participation in learning how to draw should be all-inclusive to accommodate those learners with barriers to learning.

Supporting learners with special needs/barriers to learning *(DoE 2008b; Pretorius, 2015)*

Visual learning and teaching support material	Provide extra examples
Simplify questions and instructions	Assistive devices
Power Point presentation	Repetition
Change class arrangement	Sign language
Allow extra time	Reduced information

Prepare for the drawing lessons by making use of the following learning aids:

Teaching aids

Soft lead drawing pencils
Blinder cards
View finders
Drawing sheets
Erasers
Drawing objects/visual material
Personal demonstrations
Visual presentations
Examples of masters
Sketches
Power Point presentation

<table>
<tr><th colspan="2">Methodology</th></tr>
<tr><td colspan="2">1. Prepare the class by arranging the desks for the drawing session. All learners should have a clear view of the object/s to be drawn, placed in the centre or in the front of the class. The objects should not be complicated but unfamiliar enough to discourage drawing from memory. (see Power Point presentation, slide 15). Limit the number of objects by presenting not more than two objects, to allow maximum focus on the drawing techniques. One object is to practise sketching and the second for assessment. Create a relaxed atmosphere in the class by playing Baroque music softly in the background.
2. Provide each child with an A4 drawing sheet and a H3 or H4 drawing pencil.
3. Always start lessons with warm-up sketches to practise the drawing techniques. Allow at least half an hour for uninterrupted drawing after warm-up sketches.
4. Start the lesson by presenting the Power Point presentation provided in the teacher’s resource pack.</td></tr>
<tr><td>1-2 Hours</td><td>5. Before commencement of the drawing session allow learners to explore their sense of touch and sight by suggesting exercises involving the hands (fingers) and eyes.
6. Explain the three sources of drawing: Memory, experience and observation. (see slide 4 of the Power Point presentation for clarity).
7. Ask to find out how the children had learned to draw. Children usually learn from tracing and copying or “How to draw books”. (slides 5, 6).
8. Discuss each method. Define the concept “observation drawing”. (slides 7, 8).
9. Practise mark making and recording of texture through hatching, cross hatching, dashes, dots, stipple lines, smudges. Demonstrate and model the techniques on the black board. Emphasise the importance of good line quality. (slides 10, 11, 12, 27, 28).
10. Leonardo da Vinci or Michelangelo were “master” drawers. Use examples of theirs or any other good examples to discuss and appreciate good drawing practice. This could be presented by printed copies, examples drawn from the internet or You Tube video clips, depending on the technology available. (slides 13, 14).</td></tr>
</table>

1-2 Hours	11. Make blinder cards by poking holes in paper plates, just big enough for the pencils, to practise blind contour drawing. Explain the technique and let them practice drawing an object while keeping their eyes fixed on the object and not on their drawings in front of them. Let the learners' practice contour drawing by focusing on the edges of an object. Explain the difference between blind contour drawing and modified contour drawing but let them practise with blinder cards first. It is important not to speed up. The movement of the pencils should match the movement of the eyes. (*slides 9, 17, 18, 19, 20).*
1 Hour	12. Introduce viewfinders to isolate objects and to simplify drawing edges. Explain what negative spaces are and let them draw shapes and not the form of the object. Help them to recognise the shape of the space and not the form of the object. (*slides 9, 21, 22*).
1 Hour	13. Once the learners have mastered contour drawing and drawing negative spaces, they have to learn how to record perception of light and shadow perceived in the objects. Let them apply the mark making techniques demonstrated on the black board. They have to record exactly what they see and not what they think they know about the object. (*slides 23, 24, 25*).
1 Hour	14. Introduce the measuring technique. Explain and demonstrate to the learners how to use their pencils, rulers or a paint brush to practice "sighting" for proportional correctness. 15. Apply the measuring technique and let them draw by 'sighting' the spatial relationships of the objects on display. "Sighting" is a simple way of aiding correct perspective and achieving balance when drawing an object. (*slide 26*)
16. Erasing mistakes excessively is not recommended. One learns from a "wrong" line. Wrong lines should remain and only be erased after corrections are applied in line with the information perceived from the structural elements of the object under observation. It serves as a guide to correct distortion and to draw the right perspective. 17. Repeat and practise drawing from observing and recording the structural elements of subject material. Do not correct learners' work or draw for them. The learners have to construct their own understanding. It is imperative to encourage and motivate the learners by giving feedback and praise. Demonstrate or model the techniques that are challenging. 18. Encourage the learners to express themselves and to communicate their	

feelings through individual interpretation to enhance aesthetic fulfilment.

19. Assess learners' work according to a rubric to allow them to learn from their mistakes. (An example of a rubric is provided).

Let the learners keep their drawings in portfolios to assess their own progress and for them to enjoy their art works.

20. Provide a checklist for the learners to indicate their successes and challenges.

21. Have an art exhibition to display their work.

Observation drawing techniques used for framework adapted from (Edwards, 1982)

Checklist for learners

Learners have to tick the correct answer in the appropriate block. They may tick more than one answer. (The checklist is also included in the teachers' resource pack - see Addendum N).

1. I now believe…

drawing is much more than a fun activity.		I still do not know how to draw.	
I can draw.		I need more practice.	

2. Rate your progress. Since starting to practise this drawing method, I have improved…

Not at all.		A little.	
Very little.		A lot.	

3. My drawings look…

the same as before.	
almost real.	
real.	

4. My drawing ability has benefitted the most from…

improved observation skills.		blind contour drawing.	
measuring technique. (sighting).		recording light and shadow.	

5. I find this technique the most difficult to do:

Drawing from observing the real object.		Blind contour drawing.	
Measuring technique. (sighting).		Recording light and shadow.	

Assessment

Assess the learners' art works using a rubric. The rubric is included in the teachers' resource pack (see Addendum N).

Teacher's reflection

Do the participants' drawings reflect the four perception skills of observation drawing?

Criteria:	Yes	No
Perception of edges.		
Perception of spaces.		
Perception of light and shadow.		
Perception of spatial relationships.		

Record personal reflections, based on studying the learners' drawings and on the information of their checklists to reteach, replan or reassess.

4.9 Conclusion

The aim of this research was to examine the effect of observation drawing techniques on the drawing competence of middle childhood Visual Arts learners. To accommodate the complexity of the visual data, I used various instruments, looking at different facets of the phenomenon to assist me with the analysis and interpretations, evaluated according in the criteria of the rubric and designed in compliance with arts-based research.

I collected conventional data from the textual context of the questionnaires and the observation checklist. The coding of the data was presented to add validity and authenticity to the findings. I used a questionnaire to collect data to establish the participants drawing competence before the intervention took place. I used drawings, the observation checklist and the analytical rubric to analyse and assess the standard of the artworks after intervention had occurred.

Examining and analysing the data contributed to my understanding of the construction and development of drawing and perceptual skills and has improved my perception of how drawing is learnt and taught. The drawings rendered by the participants during the data collection period showed drastic improvement in competence. The observation drawing techniques implemented were most useful in meeting the desired goal of achieving realism in drawing. All participants agreed

that the methodology was effective and that they had learnt to draw. In answer to my research questions, the findings were instrumental in informing a framework for drawing to facilitate visual and artistic literacy.

Chapter 5 provides a summary of the findings, implications and recommendations for further research.

CHAPTER 5

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

5.1 Introduction

This research examined the effects of observation drawing techniques on the drawing competence of grade 6 and 7 learners. The central argument of this study is, that in too many cases, drawing as a basic skill of Visual Arts is not mastered as there is no prescribed drawing methodology to emphasise the importance of direct instruction in drawing skills, offered in the Visual Arts curriculum. Against the background of Western art education, realistic drawing lost its position of power in the early 20th century, when a new trend led to extensive research conducted into the natural patterns of development and the encouragement of self-expression. Realistic drawing was perceived as rigid and believed to stifle creativity. This leads me to ask, "Is the emphasis on the 'development of natural patterns and free expression' the Trojan horse of 21st century art?" Does the 'silence' around realistic drawing in primary school art deprive learners of artistic fulfilment and does it "kill art"? Without direct instruction in drawing and perception skills, artistic skill and fulfilment will not be attained by most learners and realistic drawing will remain a skill reserved for a "selected artistic few".

At the start of this study I presumed that drawing, based on the "split-brain" studies of the 1950s and 1960s, done by Roger Sperry and his associates, is a right hemisphere task and that it could be enhanced by inhibiting left brain involvement in the task. I further also presumed that direct instruction in drawing techniques would enhance and not stifle creativity. I presumed that nearly everybody can learn how to draw through the practice of blind contour drawing as theorised by the cognitive-shift model of Edwards (1982). Not being able to look at the drawing, and keeping the eye fixed on the object to record the structural elements of the object observed, lead to accurate rendering of subject material. Based on scholarly opinions of Eden & Potter (2001); Edwards (1982); Mayo (2012); Murr & Williams (1988); Piaget (1964) and Wachs (1981), I presumed that, presenting a challenge to the child to master the practical and theoretical knowledge of the intervention, the drawer should develop visual perceptual and literacy skills, creative problem-solving and thinking skills which in turn would stimulate higher-order thinking and cognition over time.

The purpose of the research was to examine the effects of observation drawing techniques on the drawing competence of middle childhood Visual Arts learners. The findings of the main question

were used to inform a methodological framework for primary school art, serving the needs of Visual Arts education.

5.2 Overview of the study

The layout of my study was as follows. Chapter 1 contained the orientation, problem statement, conceptualising and methodological overview of the study. I challenged the perception among some that drawing is for those who are naturally artistic and that it is not a teachable skill. This chapter highlighted the poor drawing skills of many primary school leavers, having achieved the required basic (minimum) skills in reading, writing and mathematics but not in visual perceptual skills. I focused on the educational significance of drawing and perceptual skills. I provided the rationale for the study and confronted the gap in the primary school Visual Arts curriculum against the background of Western Art education. I included the six presumptions that the study was based on. I stated the two research questions, the purpose of the research and a brief summary of the research design and methodology. Chapter 1 concluded with a short overview of the ethical considerations and the strategies employed to ensure trustworthiness.

Chapter 2 gave an overview of literature related to Visual Arts as a discipline. Aspects of the main constructs found in the title were researched and noted in the literature review, to develop an insight in *how* drawing skills are constructed. Chapter 2 was introduced by a discussion of the South African Visual Arts policy. This was followed by a review of visual literacy; observation drawing techniques and their principles; perceptual skills underlying observation drawing; the theory of drawing developmental stages; the contradictory attitudes towards Visual Arts and the complex nature of drawing; drawing and the cognitive processes which influence learning; and the intrinsic motivation component of creativity that leads to the mastery of skills.

Chapter 3 described the research design and methodology. I used Edwards (1982) cognitive-shift model as conceptual framework and analytical tool to organise my research study. This chapter included Piaget's cognitive development theory as theoretical framework, the rationale for using the qualitative mode of inquiry and the research design. Arts-based research is a new methodological genre which employs visual material to investigate and report the research findings and answer the research questions. Chapter 3 included details of the PowerPoint presentation, used as an intervention, as well as the facilitator's brief. I discussed the sample selection and research site, as well as the data collection strategies, the coding of the data and the data analysis approach. Full details were provided of the ethical considerations and issues of trustworthiness.

In Chapter 4, I presented my research findings which included the analysis and interpretation of the visual data. The drawings were technically assessed within the bigger framework of arts-based research by means of an analytical rubric, based on the four perceptual skills of Edwards' cognitive-shift model. I used a pre-intervention questionnaire, an observational checklist, a rubric and a post-intervention reflective questionnaire to analyse and describe the data. After studying the visual data, I identified the following themes: (1) internal construction of perceptual skills; (2) creativity; (3) cognitive shift; and (4) drawing as an artistic end. These themes were employed to discuss the data, after being assessed by the aforementioned data collection instruments to establish technical competence post-intervention.

Chapter 5 integrates the research information in Chapter 4 and comprises a short overview of the study. In Chapter 5, I also show the larger relevance and value of the study, the shortcomings, the implications for practice and policy as well as avenues for further research.

5.3 Shortcomings of the study

Shortcomings are the limitations or the factors that might have influenced the study but that were out of my control. Shortcomings identified included the following aspects:

- The eagerness of some of the participants to participate in the research may have influenced the responses I got from the pre-intervention questionnaire which might have negatively affected the validity of some of the responses.
- The findings may or may not be generalisable to the broader field of the visual arts. The rich data gathered through image and text, gained in the collection process however, may lead to interpretations which could influence and have an emancipatory effect on drawing instruction in Visual Art, especially in the foundational years.
- Variations of how observation drawing techniques are understood may be evident in the artworks of the various participants.
- Images may be seen as a pleasant distraction from the real, that is, word-orientated work that constitutes "proper" research.

5.4 Significance of the study

The findings of my study were significant to translate the participants' drawings into a pedagogical tool, to stimulate creativity and fulfilment in Visual Art practice. The teachers' resource pack (see Appendix N) is and innovative and useful contribution and fills the need for direct instruction in drawing and perception skills to make skilful drawing, as basic skill of visual art, an attaninable goal for all.

5.5 Implications and recommendations for practice and policy

There are several implications for action which emerged from the data: Direct instruction in drawing must be emphasised and become part of the grade R to 9 Visual Arts curriculum. Once the drawing methodology is noted, accepted and assigned to the arts curriculum, the National Department of Education can initiate implementation of the methodology through the facilitation of workshops at district level in order for teachers to be equipped with basic drawing skills and to adopt the method I proposed, based on the drawing techniques of Edwards' (1982) cognitive-shift model, presented in Chapter 4. This will have an effect on time allocation for Visual Arts in primary schools. The time table will have to be adjusted, considering that grade 6 learners, as an example, currently only have 30 minutes of Visual Arts per week. At least one hour per week is recommended. I have found one hour to be sufficient, allowing time for skills development and practice.

The raw data allows viewers to interpret and make inferences about the artistic aptitude and development of perception skills of the participants to consider and confront their own perception on artistic aptitude and of how drawing skills are taught and learnt. Noticing the changes in the participants' drawings can lead to reflection on how to improve own practice by applying observation drawing techniques on how to facilitate drawing from life.

- The perception of art as a fun activity that does not contribute to real learning may change. Considering the theories that support the construction of drawing skills, the research project should lead to the reader/viewer taking another look at drawing, seeing it from a different perspective. Apart from the ancillary functions of art, the practice of art as an end in itself and the vital role it plays in the diverse aesthetic and cultural experiences of humans to express themselves could improve the perceived value of the discipline.
- The development of perception skills should be encouraged and become a focal point in the holistic development of young children starting at a young age. At Foundation Phase level perceptual skills are taught through various subjects. These perceptual skills include: visual perception, visual discrimination and memory, hand and eye co-ordination, form and spatial orientation (DoE, 2011). I recommend that these young ones should receive instruction of perceptual skills through direct observation, drawing from life objects at pre-school level onwards as a foundation for drawing skills in the middle-childhood years and thereafter.
- The findings might stimulate debate on the value of drawing and encourage individuals to engage and practise observation drawing techniques. Even though these techniques are not new they have not received much prominence as *drawing methodology* in the South African

Visual Arts education context. Debating the effect of this methodology in the construction of naturalistic drawing skills, could lead to observation drawing techniques taking up their rightful place in the primary school Visual Arts curriculum.

- The findings can be used by publishing articles of the study in accredited journals to promote these techniques and by presenting observation drawing workshops to inform learners, educators, adults and specifically the National Department of Education on how effective the techniques of observation drawing are in learning and teaching how to draw.

5.6 Avenues for further research

This study was conducted within the framework of theories on the internal construction of visual perception and drawing skills and how this process and practising of skills could lead to the stimulation of higher-order thinking skills and confidence in creative ability as well as the intrinsic motivation to master knowledge and skills (Amabile, 1998; Armagan Yildiz, 2012; Barone & Eisner, 2012; Chappell & Steitz, 1993; Dantzic, 1999; Edwards, 1982; Eden & Potter, 2001; Eisner, 1998; Hetland & Winner, 2001; Kantrowitz, 2012; Koopman 2005; Kurczynski, 2004; Mayo, 2012; McNiff, 2007; Mitchelmore, 1980; Piaget, 1964; Pink, 2009; Prosser, 2001; Willats, 1983; Winner & Cooper, 2000).

The following considerations provide scope for further research pertinent to the development of drawing skills in visual arts.

- This investigation was conducted over a period of five weeks, but a longitudinal study is recommended where data could be gathered over an extended period of time. A control group is to be subjected to practising observation drawing to establish its effect on the social and academic growth of the group, if compared to the other group. The long-term effects of training in the arts are modest in scale. The effects of such training on social skills, sensory-motor capabilities and personality have not been investigated thoroughly (Koopman, 2005, p. 3).

- This study focused more on middle-childhood participants to establish how observation drawing affects their ability to draw realistically. Research on how this methodology affects the drawing ability of pre-schoolers or other age groups may add to the knowledge base of arts education; especially in developing contexts.

5.7 Conclusion

According to Inhelder & Piaget, 1969 in Wachs (1981) the construction of new knowledge leads to the stimulation and development of high-level thinking and takes place when the gap between what you know and do not know is closed. Piaget believes that the process of learning how to draw is uniquely constructed by each individual through the internal construction of perceptual skills. The development of perception in art is dependent on knowledge and skills. Areas of "under-development" are challenged by the teacher when the task is altered. That requires the formation of new patterns of thinking and doing. Mastering "the unfamiliar" can be a painful process, involving effort and deliberate practice (Pink, 2009). Within this process of mastering a new challenge, several cognitive processes are stimulated. You "see, compare, categorise, encode, store and retrieve" information (Eden & Potter, 2001). This also includes processes such as visualisation and self-reflection (Hetland & Winner, 2001). Studying the data of the participants presented in chapter 4, aspects of these processes are illustrated. The "internal construction" of perceptual skills is evident when looking back to see where the participants started (see Appendix K).

The presumptions my research were based on, discussed at the beginning of this chapter and in Chapter 1 are sufficiently supported by the findings. These presumptions claimed the occurrence of a cognitive shift, enhancement of creativity, the construction of realistic representations, drawing skills for all, and then the presumptions that are more difficult to measure: the development of visual literacy and higher-order thinking skills.

Ignoring or disclaiming that which you cannot measure would be short-sighted. The arts claim to amplify and expand where scientific research reduces to core principles. I would paraphrase McNiff (2007, p. 34), by saying that one cannot deny the scientific contribution of art, like with science, which involves the physical manipulation of material substances carefully observed. That, which cannot be seen or measured are often the building blocks of the concrete manifestation of a phenomenon. How do you assess or interpret perseverance, motivation or richness of emotion? Barrett's (1994, p. 4) answer to the above is that "feelings are guides to interpretations" suggesting that interpretations are not so much about being absolutely right, but reasonable, convincing, enlightening and informative. Good interpretation invites us to see for ourselves. It was therefore important to record each participant's individual artistic experience to share the process of the participants' development of drawing skills.

When you believe that you have no talent for art and then to create a realistic drawing, is a "magical" experience. This artistic experience is "an end in itself". Success in achieving realism instilled confidence in the participants' creative ability and minimised the challenge of drawing

skillfully. The participants changed their perceptions that they were unable to draw into believing that they could. In gaining the competence to draw they constructed new knowledge and empowered themselves.

> "*In oneself, lies the whole world and if you know how to look and learn, then the door is there and the key is in your hand."* J. Krishnamurti in Edwards (1982, p. 86).

References

Amabile, T. M. (1998, September-October). *How to kill creativity.* Harvard Business Review.

Amabile, T. M. & Fischer, C. M. (2009). *Stimulate creativity by fuelling passion.* West Sussex, U.K: Harvard Business School.

Amabile T. & Kramer, S. (2012). *What doesn't motivate Cceativity can kill it.* Harvard Business Review. https://hbr.org/2012/04/balancing-the-four-factors.

Armagan Yildiz, S. (2012). *A Qqualitative analysis of school concept on primary school students*. Educational Sciences: Theory & Practice. Educational Consultancy Center. Retrieved from: www.edam.com.

Bagetta, M. (2011). *Painting & Pastels*. *Embracing a creative life.* Retrieved from**:** http://marlabagetta.blogspot.com.2012/04/do-you-really-need-to-know-how-draw. pp. 1-5.

Bamford, A. (2008). *Art develop critical thinking through culture*. Krut: 3, PRIS 60.

Bamford, A. (2003). *The visual literacy white paper.* Art and Design University Technology Sydney. Adobe Systems Incorporated. United Kingdom. Waterview House.

Baptiste, L. (2008). *Managing subjectivity in arts assessment.* Retreived from: http://www.academia.edu.

Barone, B. & Eisner, E. (2012). *Arts based research.* DOI: 10.435/9781452230627/Print ISBN: 978141982474/ Online ISBN: 9781452230627. Sage.

Barrett, T. (1994). *Criticizing art: Understanding the contemporary*. Mountain View, California: Mayfield.

Bartel, M. (2000). *Successful art programs part 11.* Goshen College. Bartelart.com.

Bartel, M. (2003). *Teaching observation drawing to young children*. Retrieved from: http:www.com/art/ideas.html.

Bartel. M. (2008).*Teaching creativity.* Retrieved from: http://www.com/artd/ideas.html.

Bartel, M. (2009). *Art rituals in the classroom.* Retrieved from: http://www.goshen.edu/art/ed//ritual.html.

Behrens, R. (2004). *Art, design and gestalt theory*. 31 (4), pp. 299-203. Retrieved from: URL:http//0-www.jstor.org.hnopac.up.ac.za/stable/1576669.

Bourdreau, J.D., Cassel, R.J. & Fuks, A. (2008). Medical education. *Teaching Clinical Observation Skills*, 30, No 9-10, pp. 857-869.

Chappel, P.A. & Steitz, J.A. (1993). *Young children's human figure drawings and cognitive development.* Perceptual and Motor Skills: 76, pp. 611-617.

Clark, S. (1998). *Arts & Culture provision in primary schools.* The Art Paper. No 3.

Cohen, L., Manion, L. & Morrison, K. (2006). *Research methods in education*. New York, NY: Routledge Falmer.

Creswell, J. W. (2008). *Educational Research.* Planning, Conducting and Evaluating Quantitative and Qualitative research. Upper Saddle River, NJ: Pearson Education.

Creswell, J. W. (2011). *Educational Research.* Planning, Conducting and Evaluating Quantitative and Qualitative Research (4 th ed.). Upper Saddle River, NJ: Pearson Education.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper and Row.

Csikszentmihalyi, M. (1997). *Creativity:* Flow and the psychology of discovery and invention. New York, NY: Harper Perennial.

Dantzic, C. M. (1999). *Drawing dimensions: A comprehensive introduction*. Upper Saddle River, NJ: Prentice-Hall.

Denzin, N. K. & Lincoln, Y. S. (1998).*The landscape of Qualitative Research*. Theories and issues. Newcastle upon Tyne, UK: Sage.

Denzin, N. K. & Lincoln, Y. S. (2000). *Handbook of Qualitative Research*. 2nd ed. London, UK: Sage.

Department of Education. (2001). *National Curriculum Statement*. Assessment Guidelines for Arts and Culture. (Intermediate and Senior Phases). Pretoria: Department of Education.

Department of Education. (2002). *Revised National Curriculum Statement:* Grades R-9. Arts and Culture. Pretoria: Department of Education.

Department of Education. (2003). *National Curriculum Statement:* Grades 10-12 (General). Visual Arts. Pretoria: Department of Education.

Department of Education. (2005). *AC & LO Training Manual Curriculum 2005: Intermediate Phase*. Department of Education. Unisa: Centre for Teacher Development and School Governance.

Department of Education, (2008a). *The Arts & Culture Teacher's Companion Book.* (Visual Arts). Grade 4-7. Johannesburg: Gauteng Department of Education.

Department of Education. (2008b). *National curriculum Statement:* Grades 10-12 (General). Learning Programme Guidelines. Visual Arts. Pretoria: Department of Education.

Department of Education. (2011). *Curriculum and Assessment Policy Statement* 2011. *Creative Arts.* Pretoria: Department Basic Education.

Devlin-Gascard, L. (1997). *The signature as an access line to expressing drawing.* National Art Education Association, 50, 39-44. Retrieved from: http://www.jstot.org/stable/3193642.

Donalyn, H. (2004). *Is visual culture becoming our canon of art?* Art Education. 57, pp. 41-46. Retrieved from: http://0-web.ebscohost.com.innopac.up.ac.za/ehost.

Drake, J. & Winner, E. (2012). *Predicting artistic brilliance.* Scientific American Mind. 23 (5), pp. 42-48. Retrieved from: http://search.ebscohost.com/login.aspx?direct=true7db=aph&AN= 8296396&site=ehost- live&scope=site.

Driessnack, M. & Furukawa, R. (2011). *Arts-based data selection techniques used in child research.* Paediatric Nursing, 17 (51). Wiley Periodicals. Retrieved from: http://Doi: 10,1111 1744 2011.

Duffelmeyer, B. & Ellertson, A. (2013). *Across the disciplines.* Journal of Language, Learning and Academic Writing. WAC Clearinghouse, Colorado State University and Georgia Southern University.

Edens, K. M., & Potter, E. F. (2001). *Promoting conceptual understanding through pictorial representation.* Art Education, 42 (3) pp. 214-233. Retrieved from: http://www.jstor.org/stable/1321038.

Edwards, B. (1982). *Drawing on the right side of the brain: How to unlock your hidden artistic talent.* London. UK: Harper Collins.

Edwards, B. (1987). *Drawing on the artist within.* London. UK: William Collins.

Edwards, B (1992). *A few thoughts on art education.* Retrieved from: http://homepage3.nifty.com/art- of-life/workshop/realism.htm.

Eisner, E. (1998). *Does experience in the arts boost academic achiement?* Arts Education Policy. Review, 100 (1), pp 32-41.

Flannery, A. & Watson, M. W. (1991). *Perceived competence in drawing during the middle childhood years.* Visual Arts Research. Chicago, IL: University of Illinois Press.

Gudridge, P. O. (1983). *The persistence of classical style.* University of Pennsylvania Law Review. 131 (3) pp. 663-792. Retrieved from: http://www. Jstor.org.innopac.uo.ac.za/stable/3311846.

Hall, C., & Thomson P. (2007). *Creative partnerships? Cultural policy and inclusive arts practice in one primary school.* British Educational Research Journal, 33, pp. 315-329. Retrieved from http://www.jstor.org/stable/30032613.

Hesser, J. F. (2009). *Personal perspectives on constructivism in a high school art Class.* Art Education. 62 (4), pp. 41-47 Retrieved from: http;//0web.ebscohost.com.innopac.up.ac.za/ehost.

Hetland, L. & Winner, E. (2010). *The arts and academic achievement: What the evidence shows.* Education Policy Review. Retrieved from: from:http://dx.doi.org. Routlege.

Holt, D. (1979). *Problems in primary art education: Some reflections on the need for a new approach* in the early years. *International Journal of Early Years Education*, 5 (2), pp 93-100.

Hume, H. D. (2010). *The art teacher's book of lists.* Grades K-12. 2nd Ed. San Francisco, CA: Jossey-Bass.

Jolley, R. & Zhang, R. (2012). *How drawing is taught in Chinese infant school.* (JADE 31.1). UK: Blackwell.

Kantrowitz, A. (2012). *The man behind the curtain: What cognitive science reveals about drawing.* Journal of Aesthetic Education. 46 (1), Chicago, IL: University of Illinois.

Katter, E. & Stewart, M. G. (2002). *ART and the human experience:* A personal journey. Worcester, MA: Davis.

Koopman, C. (2005). *Journal of Philosophy of Education*. 39 (1), pp 85-97. Retrieved from: http://www.altmetric.com.

Kover, D. J. & Worell, F. C. (2010). *The influence of instrumentality beliefs on intrinsic motivation*: A study of high-achieving adolescents. Journal of Advanced Academics , 21 (3), pp. 470-498.

Kowalchuk, E. A., & Stone. D. L. (2000). *Art education courses for elementary teachers: What really happens?* Visual Arts Research, 26, (2), 52. University of Illinois Press. Retrieved from: http://www.jstor.org/stable/20716007.

Kurczynski, K. (2004). *Drawing is new painting.* Art Journal. 70 (1), pp 92-110. Retrieved from: http://search.ebscohost.com/login.aspx?dirct=true&db-aph&AN-66893550.

Lincoln, Y. S. & Guba, E. G. (2000). *Qualitative Research.* Paradigmatic controversies, contradictions, and emerging confluences. Thousand Oaks, CA: Sage.

Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage.

Lowenfeld, V. & Brittain, W. L**.** (1970). *Creative and mental growth* (5th ed*.).* New York, NY: Macmillan.

Maree, K. (2011). *First steps in research.* Pretoria: Van Schaik Publishers.

Matthews, J. (2001). *Children drawing attention: Studies from Singapore.* Visual Arts Research, 27, (1/53), pp. 13-45. University of Illinois Press. Retrieved from: http://www.jstor.org/stable/20716020.

Mayo, N. (2012). *Drawing into practice. Journal of Visual Art Practice.* 11 (1), pp. 75-81. Retrieved from: http://ceramics.cardiff.ac.uk.

McMahon, J. A. (2002). *An explanation for normal and anomalous drawing ability and some implications for research on perception and imagery.* Visual Arts Research, 28, (1/55), pp. 38-52. University of Illinois Press. Retrieved from: http://www.jstor.org/stable/20716047.

McNiff, S. (2007). Art-based research. 03 - Knowles (Handbook) – 45358.gxd. pp. 29-40.

Merriam, S. B**.** (2009). *Qualitative Research.* A guide to design and implementation. San Fransisco, CA: Jossey–Bass.

Mithchelmore, M. C. (1980). *Prediction of developmental stages in the representation of regular space figures*. Journal for Research in Mathematics Education.11 (2), National Council of Teacher Mathematics Education. Retrieved from: http://www.jstor.org.innopac.up.ac.za/stable/748901.

Mouton, J. (2012). *How to succeed in your Master's & Doctoral Studies.* A South African Guide and Resource Book. Pretoria: Van Schaik.

Murr, L. R., & Williams, J. B. (1988). *Half-brained ideas about education: Thinking and learning with both the left and right brain in a visual culture*. Leonardo, 21 (4), pp. 413-419. Retrieved from: http://www.jstor.org/stable/1578704.

National specification in art and design. (2010). Level 3, Issue 1. *Drawing from observation*. BTEC: Edexecel Limited.

O'Farell, L., & Meban, M. (2003). *Arts education and instrumental outcomes: An introduction to Research, Methods and Indicators*. Kingston, Canada: UNESCO Faculty of Education at Queen's University.

Perlmutter, M. & Myers, N. A. (1975). *Young children's coding and storage of visual and verbal material.* Child Development, 46 (1), pp. 215-219. Retrieved from: http://www.jstor.org/stable/1320597.

Piaget, J. (1964). *Cognitive development in children.* Journal of Research In Science Teaching, 2, pp. 176-186. Center for Genetic Epistemology, Geneva. Switzerland.

Pink, D. H. (2009). *Drive. The surprising truth about what motivates us*. UK. Canongate Books.

Pipes, A. (2003). *Foundations of art and design.* London: Laurence King.

Potter, J. W. (1996). *An analysis of thinking and research about Qualitative Methods.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Prosser, J. (2001). *Image-based research.* A sourcebook for qualitative researchers. Philadelphia: Routledge-Falmer, Taylor & Francis.

Read, H. (1958). *Education through Art.* London, UK: Shenval Press.

Reid, J. (2013). *Looking at media*. An Introduction to visual studies. Cape Town: Pearson Education. South Africa.

Shank, D. (2006). *Qualitative Research. A personal skills approach.* Upper Saddle River, NJ Pearson Education.

Scott, M. C. (1983). *The Importance of the whole brain for learning realistic drawing,* Studies in Art Education, 24 (2), pp. 126-130. National Art Education Association. Retrieved from: http://www.jstor.org/stable/1319568.

Shalley, C. E., Zhou, J. & Oldham, G. R. (2004). T*he effects of personal and contextual characteristics on creativity: Where should se go from here? Journal of Management, 30, pp.933-958.* Retrieved from: http://jom.sagepub.com/cge/content.abstract/30/6/33.

Smith, S. (1981). *How to draw and paint.* London, UK: Quarto.

Thibault, M. & Walbert, D. (2003). *Reading images: An introduction to visual literacy.* LEARN NC. University of North Carolina. Retrieved from: http://www.learn.org/1p.pages/675.

Unsworth, K. (2001). *Unpacking creativity.* The Academy of Management Review, 26. (2). pp. 289-297. Retrieved from: http://www.jstor.org/stable.

Wachs, H. (1981). *Visual implications of Piaget's theory of cognitive development.* Journal of Learning Disabilities, 14 (10). pp.581-583.

Willats, J. (1983). *The role of conscious knowledge in the development of drawing ability:* Art and the Mind. Art Education, 36 (2), pp. 76-80+82-83. Retrieved from: http://www.jstor.org/stable/3192669.

Winner, E. & Cooper, M. (2000). *Mute those claims. No evidence (yet) for a causal link between arts study and academic achievement.* Journal of Aesthetic Education, 343, 11-75.

Winner, E. & Hetland, L. (2008). *Art for our sake. School arts matter more than ever, but not for the reason you think.* Arts Education Policy Review. Retrieved from: http://dx.doi.org.

Yenawine P. (1997). *Thoughts on visual literacy:* Handbook of research on teaching literacy through the communicative and visual arts. New York, NY: Visual Understanding in Education.

Appendices

APPENDIX A

Provincial Department of Basic Education: Request for permission to conduct research on site

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

21 April 2014

The District Office

Tshwane South D4

Gauteng Department of Education

Dear Sir/Madam

Request: permission to conduct school-based research

I am currently enrolled for a Master's degree in Education at the University of Pretoria. The study is related to the effectiveness of drawing techniques in response to challenges in the drawing developmental stages of middle childhood Visual Arts learners. The working title is currently: ***A methodological framework for observation drawing:***

Empowering middle childhood Visual Arts learners with visual literacy skills.

Purpose

The purpose of the study is to examine how drawing as a cognitive tool within the framework of observation drawing can be used to empower learners with contemporary visual literacy and communication skills to obtain a wide spectrum of meaning-making skills in understanding images. The study will challenge the insufficient progress of middle school learners in terms of drawing and perception skills.

Research questions

Questions that frame this study are:

- How effective are observation drawing techniques in response to challenges in the developmental drawing stages of middle childhood Visual Arts learners?
- What is the effect of observation drawing on the ability of learners who are not artistic?
- How effective is observation drawing as methodological approach in empowering learners with visual communication and literacy skills?
- How can the findings of the above questions be used to inform a methodological framework for primary school art, serving the needs of visual arts education?

Participants

Twelve, grade 6 & 7 Visual Arts learners, who are not artistic and who believe that they cannot draw will be selected. They will receive drawing lessons for one hour per week between 14h00 -15h00, for a period of five weeks in my classroom, after school hours. The drawing lessons will be presented by an assistant by means of a Power Point presentation and by personal demonstration.

Data collection

The following methods will be employed to gather data: a ten minute interview held at a time and location mutually and conveniently agreed upon between myself and the learner, guided by nine questions and two drawings, to select learners suitable for participation in the study; observation; visual representations of the participants and a questionnaire. The questionnaire will require of the participants to reflect on their drawing process experience. Data will be collected over a period of five weeks starting towards the end of May until June 2014.

Participation is entirely voluntarily. Learners, who decide to participate, but change their minds later, may withdraw from participation at any time. The data gathered from the learner will then be withdrawn from the study. The identity of the school and participating learners will be protected. Each drawing will receive a different picture/symbol as identification and will be kept in individual folders in order to keep record and to examine the progress made. Only my supervisor, the assistant and I shall know the participants' real names.

The information gathered will only be used for academic purposes. Collected data will be in my possession and will be locked up for safety and confidential purposes. After completion of the study, the material will be stored at the University's Humanities Education Department at the Faculty of Education, according to policy requirements. The findings of this study will be presented in a master's dissertation and disseminated via articles of conference presentations. The dissertation will, therefore, become public domain for scrutiny by examiners and other academics. However, I am bound by rules of integrity and ethical conduct as prescribed by the University of Pretoria and promise to abide by those rules.

I thus request permission from the District Office to conduct research at Lynnwood Ridge Primary School. If you require further information, please contact me or my supervisor.

Yours sincerely

Mrs L. Pretorius (MEd student)

Cell: 082 415 0472

leana.pretorius@vodamail.co.za

Prof R. Evans (Supervisor)

Cell: 083 732 0099

rinelle.evans@up.ac.za

APPENDIX B

Provincial Department of Education: Permission to conduct research on site

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

For administrative use:
Reference no: D2015 / 104

GDE RESEARCH APPROVAL LETTER

Date:	3 June 2014
Validity of Research Approval:	3 June 2014 to 3 October 2014
Name of Researcher:	Pretorius H.M.
Address of Researcher:	Magnolia 7
	445 Cliff Avenue
	Waterkloof Ridge Extension 2
	Pretoria
	0180
Telephone Number:	012 347 5323; 082 415 0472
Email address:	leana.pretorius@vodamail.co.za
Research Topic:	Methodological framework for observation drawing: Empowering middle childhood Visual Arts learners with visual literacy skills
Number and type of schools:	ONE Primary School
District/s/HO	Tshwane South

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

2014/06/04

The following conditions apply to GDE research. The researcher may proceed with the

above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1. *The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.*
2. *The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.*
3. *A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.*
4. *A letter / document that outlines the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.*
5. *The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.*
6. *Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.*
7. *Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.*
8. *Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.*
9. *It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.*
10. *The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.*
11. *The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.*
12. *On completion of the study the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.*
13. *The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.*
14. *Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.*

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

DMakhado
.....

Dr David Makhado
Director: Education Research and Knowledge Management

DATE: 2014/06/04

Office of the Director: Knowledge Management and Research
9th Floor, 111 Commissioner Street, Johannesburg, 2001
P.O. Box 7710, Johannesburg, 2000 Tel: (011) 355 0506
Email: David.Makhado@gauteng.gov.za
Website: www.education.gpg.gov.za

APPENDIX C

Letter of request: Permission to conduct research from School Governing Body chairman

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

Faculty of Education
Department of Humanities
1 April 2014

Dear Mr Van Siloane

LETTER OF INFORMED CONSENT: Request: permission to conduct research

I am currently enrolled for a Master's degree in Education at the University of Pretoria. My study is related to the effectiveness of drawing techniques in response to challenges in the drawing developmental stages of grade 6 & 7 Visual Arts learners. The working title is currently: **A methodological framework for observation drawing: Empowering middle childhood Visual Arts learners with visual literacy skills.**

Purpose

The purpose of the study is to examine how drawing as a cognitive tool within the framework of observation drawing can be used to empower learners with visual literacy and communication skills to obtain a wide spectrum of meaning-making skills in understanding images. The study will challenge the insufficient progress of middle school learners in terms of drawing and perception skills.

Research questions

Questions that frame this study are

- How effective are observation drawing techniques in response to challenges in the developmental drawing stages of middle childhood Visual Arts learners?
- What is the effect of observation drawing on the ability of learners who are not artistic?
- How effective is observation drawing as methodological approach in empowering learners with visual communication and literacy skills?
- How can the findings of the above questions be used to inform a methodological framework for primary school art, serving the needs of visual arts education?

Participants

Thirteen grade Visual Arts learners, who are not artistic and who are of the opinion that they cannot draw will be selected. They will receive drawing lessons for one hour per week between 14h00 - 15h00, after school hours. The drawing lessons will be facilitated by an assistant by means of a Power Point presentation on observation drawing techniques. Data will be collected over a period of five weeks and will start as soon as ehtical clearnance was obtained from the Ethics Committee at the University of Pretoria. Data collection will be for one hour, once a week after school hours in my classroom.

Data collection

The following methods will be employed to gather data: a ten minute interview, held at a time and location mutually and conveniently agreed upon between myself and the learner, guided by nine questions and two drawings - to select learners suitable for participation in the study; observation; visual representations of the participants and a questionnaire. The questionnaire will require of the participants to reflect on their drawing process experience.

Participation is entirely voluntarily. Learners, who decide to participate, but change their minds later, may withdraw from participation at any time. The data gathered from the learner will then be withdrawn from the study. The identity of the school and participating learners will be protected. Each drawing will receive a different picture or symbol as identification and will be kept in individual folders in order to keep record and to examine the progress or transformation made.

The information gathered will only be used for academic purposes. Collected data will be in my possession and will be locked up for safety and confidential purposes. After completion of the study, the material will be stored at the University's Humanities Education Department at the Faculty of Education, according to policy requirements. The findings of this study will be presented in a master's dissertation and disseminated via articles or conference presentations. The dissertation will, therefore, become public domain for scrutiny by examiners and other academics. However, I am bound by rules of integrity and ethical conduct as prescribed by the University of Pretoria and promise to abide by those rules.

I thus request permission to conduct research at Lynnwood Ridge Primary School. If you require further information, please contact me or my supervisor.

I look forward to your positive response which would start a mutually beneficial involvement for all concerned.

Yours sincerely

Mrs L. Pretorius (MEd student)

Cell: 082 415 0472

leana.pretorius@vodamail.co.za

Prof R. Evans (Supervisor)

Cell: 083 732 0099

rinelle.evans@up.ac.za

APPENDIX D

Request to conduct research from the principal

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

Faculty of Education
Department of Humanities
1 April 2014

Dear Mr Van Graan

LETTER OF INFORMED CONSENT: Request: permission to conduct research

I am currently enrolled for a Master's degree in Education at the University of Pretoria. My study is related to the effectiveness of drawing techniques in response to challenges in the drawing developmental stages of grade 6 & 7 Visual Arts learners. The working title is currently: ***A methodological framework for observation drawing: Empowering middle childhood Visual Arts learners with visual literacy skills.***

Purpose

The purpose of the study is to examine how drawing as a cognitive tool within the framework of observation drawing can be used to empower learners with visual literacy and communication skills to obtain a wide spectrum of meaning-making skills in understanding images. The study will challenge the insufficient progress of middle school learners in terms of drawing and perception skills.

Research questions

Questions that frame this study are

- How effective are observation drawing techniques in response to challenges in the developmental drawing stages of middle childhood Visual Arts learners?
- What is the effect of observation drawing on the ability of learners who are not artistic?
- How effective is observation drawing as methodological approach in empowering learners with visual communication and literacy skills?
- How can the findings of the above questions be used to inform a methodological framework for primary school art, serving the needs of visual arts education?

Participants

Twelve, grade 6 & 7 Visual Arts learners, who are not artistic and who are of the opinion that they cannot draw will be selected. They will receive drawing lessons for one hour per week between 14h00 -15h00, after school hours. The drawing lessons will be facilitated by an assistant by means of a Power Point presentation on observation drawing techniques. Data will be collected over a period of five weeks and will start as soon as ehtical clearnance was obtained from the Ethics Committee at the University of Pretoria. Data collection will be for one hour, once a week after

school hours in my classroom. Each participant will be attending instruction in drawing skills for the period of five weeks, once a week, for one hour, after school between 14h00 – 15h00 in the afternoon, in my classroom.

Data collection

The following methods will be employed to gather data: a ten minute interview, held at a time and location mutually and conveniently agreed upon between myself and the learner, guided by nine questions and two drawings - to select learners suitable for participation in the study; observation; visual representations of the participants and a questionnaire. The questionnaire will require of the participants to reflect on their drawing process experience.

Participation is entirely voluntarily. Learners, who decide to participate, but change their minds later, may withdraw from participation at any time. The data gathered from the learner will then be withdrawn from the study. The identity of the school and participating learners will be protected. Each drawing will receive a different picture or symbol as identification and will be kept in individual folders in order to keep record and to examine the progress or transformation made

The information gathered will only be used for academic purposes. Collected data will be in my possession and will be locked up for safety and confidential purposes. After completion of the study, the material will be stored at the University's Humanities Education Department at the Faculty of Education, according to policy requirements. The findings of this study will be presented in a master's dissertation and disseminated via articles or conference presentations. The dissertation will, therefore, become public domain for scrutiny by examiners and other academics. However, I am bound by rules of integrity and ethical conduct as prescribed by the University of Pretoria and promise to abide by those rules.

I thus request permission to conduct research at Lynnwood Ridge Primary School. If you require further information, please contact me or my supervisor.I look forward to your positive response which would start a mutually beneficial involvement for all concerned.

Yours sincerely

Mrs L. Pretorius (MEd student)

Cell: 082 415 0472

leana.pretorius@vodamail.co.za

Prof R. Evans (Supervisor)

Cell: 083 732 0099

rinelle.evans@up.ac.za

APPENDIX E

Parents: Consent form

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

9 June 2014

Dear Parent/Guardian/Caregiver

LETTER OF INFORMED CONSENT FOR PARTICIPATION IN A RESEARCH PROJECT

I am currently enrolled for a Master's degree in Education at the University of Pretoria. The study is related to the effectiveness of drawing techniques in response to challenges in the drawing developmental stages of grade 6 & 7 Visual Arts learners. The working title is currently: ***A methodological framework for observation drawing: Empowering middle childhood Visual Arts learners with visual literacy skills.***

Purpose
The purpose of the study is to examine how drawing as a cognitive tool within the framework of observation drawing can be used to empower learners with visual literacy and communication skills in order to obtain a wide spectrum of meaning-making skills in understanding images. The study will challenge the insufficient progress of middle childhood learners in terms of drawing and perception skills.

Research questions
Questions that frame this study are

- How effective are observation drawing techniques in response to challenges in the developmental drawing stages of middle childhood Visual Arts learners?
- What is the effect of observation drawing on the ability of learners who believe that they have no talent for art?
- How effective is observation drawing as methodological approach in empowering learners with visual communication and literacy skills?
- How can the findings of the above questions be used to inform a methodological framework for primary school art, serving the needs of Visual Arts education?

The data collection should start at the end of June 2014 for a period of five weeks. Each participant will be attending instruction in drawing skills for the period of five weeks, once a week, for one hour after school between 14h00 – 15h00 in the afternoon.
Participants will be required to make five drawings, over the five week period, after having received instruction by means of a Power Point presentation on observation drawing techniques. This will be presented and facilitated by a research assistant.

The following methods will be employed to gather data: an interview, guided by nine questions and two unmediated drawings, observation, visual representations of the participants and a questionnaire. The questionnaire will require of the participants to reflect on their drawing process experience.

Ethical principles

I needed to apply for ethical clearance from several authorities amongst others, the university and provincial education department before engaging in any form of data collection. The outline below contains internationally accepted ethical principles, applicable when working with human participants:

Autonomy and voluntary participation: Participants have the right to decide to participate. Participation is free and voluntarily. Participants will have all the information in order to make an informed decision. They will attend an information session in May 2014, during which I will explain the research project. They also have the right to withdraw at any stage of the project, if they so wish, without any negative consequences.

Full disclosure: Participants will be provided with sufficient information about proposed activities, the expected benefits, or material risks i.e. anything that might influence their decision to participation or not.

Confidentiality: Although this study does not plan to delve into sensitive or personal issues, participants have a right to privacy and their anonymity will be protected. Codes and symbols, allocated to their drawings will be used to hide their identity. The location and the name of the school will also be changed to protect the identity of all concerned.

Safety in participation: Participants will not be at physical or psychological risk or harm of any kind. This means that they will not be placed in circumstances which may cause undue stress, embarrassment, or loss of self-esteem.

Trust: Findings will be reported in a complete and honest way. Data will not be fabricated or findings altered. Appropriate credit and acknowledgements will be given and the practical implications of the research will be shared in a comprehensible way.

I look forward to your positive response which would start a mutually beneficial involvement for all concerned.

Yours sincerely

Mrs L. Pretorius (MEd student)
leana.pretorius@vodamail.co.za
Cell: 082 415 0472

Prof R. Evans (Supervisor)
rinelle.evans@up.ac.za
Cell: 083 732 0099

LETTER OF INFORMED CONSENT

I, …….. have read the information contained in the *Letter of Informed Consent* and give permission that my child may participate in the research study, presented by a research assistant. I am aware of what is expected of my child and that I have the right to withdraw my child at any time should I so wish, without having to provide a reason.

By signing this form, I give consent to having any verbal and/or non-verbal information possibly provided by my child relevant to this study photographed. I acknowledge that I am allowing my child to participate voluntarily and that I have not in any way been forced, manipulated or coerced into giving permission.

……... ……

Signed: Parent/Guardian/Caretaker Date

Name: ……...

Tel.:……

Email: ……

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

Dear Parents

Drawing sessions: Times

Five, one hour sessions:

Drawing session	Time
1. Wednesday, 25 June 2014	14h00 - 15h00
2. Monday, 30 June 2014	14h00 - 15h00
3. Wednesday, 9 July 2014	14h00 - 15h00
4. Wednesday, 16 July 2014	14h00 - 15h00
5. Wednesday, 23 July 2014	14h00 - 15h00

Drawing utensils will be provided.

Kind regards

Leana Pretorius

082 415 0472

……

I, _____ parent of _____ in grade 6 /7 acknowledge receipt of times allocated for drawing sessions.

Note:

_____

_____

_____

APPENDIX F

Request for assent from minors

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

9 June 2014

Dear Learner

LETTER OF INFORMED CONSENT FOR PARTICIPATION IN THE RESEARCH PROJECT ON: A METHODOLOGICAL FRAMEWORK FOR OBSERVATION DRAWING: EMPOWERING MIDDLE CHILDHOOD VISUAL ARTS LEARNERS WITH VISUAL LITERACY SKILLS

Sometimes when we want to find out something, we ask people for information to help us explain what we need to know. We then do what is called a project. I would like you to take part in this project so that you can help me find out what I need to know.

Let me tell you about the project first. This project will help you to improve your drawing skills by making your drawings look “real”. It might also help other children to learn how to draw in future. To help me, you will receive instruction in learning how to draw. I need to take pictures of your drawings before you have received instruction and thereafter in order to compare it to see if there is any improvement.

I am asking you to be in this study because your parents/guardian(s)/caregivers have agreed that you can be part of my study. If you don’t want to you don’t have to. Everything was explained to your parents/guardian(s)/caregivers and they said you could take part if you wanted to. You can talk to them or any other adult you trust first before you decide if you want to take part or not.

This is what will happen. You will be asked to make two drawings in order for me to assess how you drew before you were shown how to draw. A project assistant will then show you a Power Point presentation on drawing techniques. You will then be required to draw from life. To draw form life means that you have to draw from real life objects by observing them closely. I shall take photographs of your drawings, if you will allow me to. If you do not want me to, you don’t have to. Your drawings will receive a picture or symbol to hide your identity and protect your privacy. Your drawings will also be kept private in a folder tor you to look at and learn from and to think back on your drawing experience. No one else will see your drawings.

You can ask any questions about the project at any time. If you agree to take part and you have questions later that you can think of now, you can phone me at 082 415 0472 or Prof Evans, my supervisor at 012 420 4272.
You do not have to take part in this project. No one will be upset or angry if you don’t want to do this. If you don’t want to be in this project you just have to tell me. You can say yes or no and if you change your mind you can quit at any time. It’s up to you.

Writing your name here means that you agree to take part in this project and that you know what will happen during the project. You also agree that I can take photos of your drawings and share these images during discussions as well as reports that I write about the project. If you decide to quit, all you have to do is tell me.

Signature of learner …… Date: ……..

Name: ……

Name of parent/guardian/caregiver: ……..

Tel: ……

Email: ……

Mrs L. Pretorius
Cell.082 415 0472

Prof R. Evans
Cell. 083 732 0099

Letter template provided by Prof L. Ebersőhn

APPENDIX G

Pre-intervention questionnaire

Pre-intervention questionnaire

Research title: A methodological framework for observation drawing: Empowering middle childhood visual arts learners with visual literacy skills.

Participant: _____ Telephone number: _____

Sex: _____

School: Lynnwood Ridge Primary Research site: My classroom

Date: _____ Time: _____

Length of period: _____

Grade: _____ Age: _____

.....

1. How would you rate your drawing ability?

Excellent Good Fair Poor Very poor

2. What can you draw best?

(a) a house

(b) a face

(c) a car

(d) an animal

(e) flowers

(f) the human figure

(g) geometrical shapes

3. Who taught you how to draw?

(a) no one

(b) a family member

(c) a friend

(d) a teacher

4. How did you learn to draw?

   (a) by tracing

   (b) from copying others

   (d) someone corrected your lines

   (e) ‘how to draw’ books

5. Was there a time that you enjoyed drawing more than you do now?

   (a) pre-school

   (b) Foundation Phase

   (c) at present

6. How many adults do *you* know that can draw well?

   (a) one

   (b) two

   (c) three

   (d) four and more

7. Do you believe that drawing is an activity:

   (a) just for children

   (b) grown-ups

   (c) for all: children as well as grown-ups

8. What are you talented in? What can you do best?

   (a) draw

   (b) sing

   (c) dance

   (d) drama

(e) none of the above

9. Do you believe that drawing is:

(a) an important skill?

(b) just a fun activity

(c) only for people that are artistic?

10. Drawings:

10.1 Draw a picture of any object you can draw best but at the present time.

10.2 Try to remember any of your first (early childhood) drawings.

Draw the same picture adding all detail just as you remember it. Use the same medium (pencil or colour) you used then.

Notes:

APPENDIX H

Observation checklist

Observation Checklist

Participant: ---------- Grade: _____ Age: _____

Observer: L. Pretorius

Research site: My classroom

Date: ----------

Time: ----------

Length of period: _____

……

To determine the mechanical and emotional aspects which may lead to empowering middle childhood visual arts learners with drawing and visual literacy skills.

Observation	**Yes**	**Not sure**	**No**
1. Does the learner grasp the concept of *shifting to a particular way of seeing*?			
2. Does the learner experience an altered state of awareness – *being at one with the work*? Is he/she relaxed and free from anxiety?			
3. Is their old way of seeing still interfering with the learner's ability to draw? - Does the learner draw what he/she see or does he/she draw mainly from imagination or experience/memory?			
4. Does the learner show signs of being ridiculed about his/her attempts at drawing? - Does the learner show any signs of frustration or embarrassment?			
5. Does the learner display *tightness* and a *lack of creativity* in his/her drawings? - Does he/she show any signs of restlessness or tension?			
6. Is there a change in his/her ability to draw, in other words, an improvement in perceptual skills? - Do his/her drawings look realistic or childlike?			
7. Has the learner gained confidence to go on developing his/her expressive drawing skills in other areas - liberating his/her creative skills?			
8. Does the learner display enthusiasm? – Is he/she enjoying her/ himself?			

Adapted from (Edwards, 1982)

.....

Notes:

APPENDIX I

Post-intervention reflective questionnaire

Post-intervention reflective questionnaire

Research title: A methodological framework for observation drawing: Empowering middle childhood visual arts learners with visual literacy skills.

Participant: Contact details:

Gender: Boy _____or Girl_____

School: Lynnwood Ridge Primary Research site: My classroom

Date: Time:

Grade: Age:

……

Participant's reflection

1. How do you feel about drawing now? You may circle more than one answer.

   (a) Drawing is much more than a fun activity

   (b) I believe that I can draw

   (c) I still don't know how to draw

   (d) I need more practice

2. To what degree has your drawing improved since starting to practise this drawing technique? Rate your progress. Circle the correct answer.

   (a) not at all

   (b) very little

   (c) a little

   (d) a lot

   (e) a great deal

3. My drawings look:

   (a) the same as before

   (b) almost real

   (c) real

4. You may circle any two of the following options. My ability to draw has benefited the most from:

   (a) improved observation skills

   (b) measuring technique / sighting

   (c) blind contour drawing

   (d) recording light and shadow

5. I find the following technique the most difficult to do:

   (a) observation of an object

   (b) measuring technique / sighting

   (c) blind contour drawing

   (d) recording light and shadow

6. I have mastered blind contour drawing and can make a drawing that looks realistic.

   (a) not at all

   (b) very little

   (c) a little

   (d) a lot

   (e) a very great deal

APPENDIX J

PowerPoint presentation used for data collection by the research assistant

Slide 1

Classic Traditional Drawing skills

By Leana Pretorius

Slide 2

The key

Once the "key" is given to you, you alone can unlock the door.

'SELF LEARNING' is the only learning

Slide 3

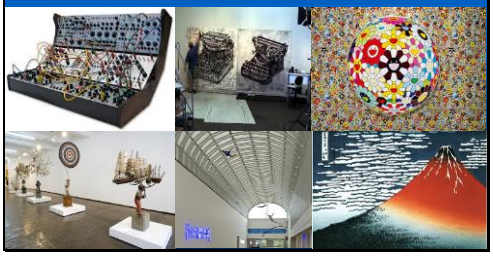
Visual art works

Two broad outputs:

(a) Fine arts

Slide 4

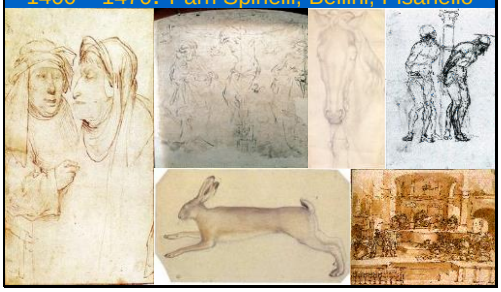
(b) Contemporary/modern art



Slide 5

15th Century

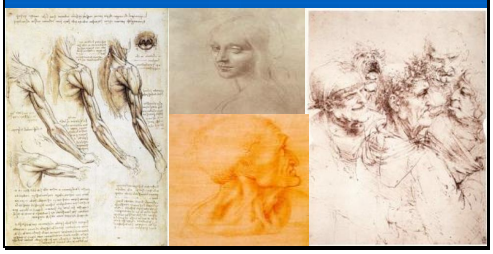
1400 – 1470: Parri Spinelli, Bellini, Pisanello



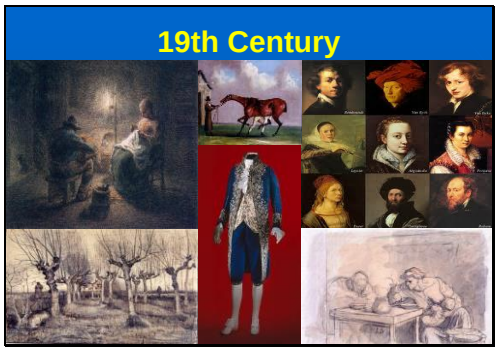
Slide 6

16th Century

1452 – 1519: Leonardo Da Vinci
1475 – 1564: Michelangelo



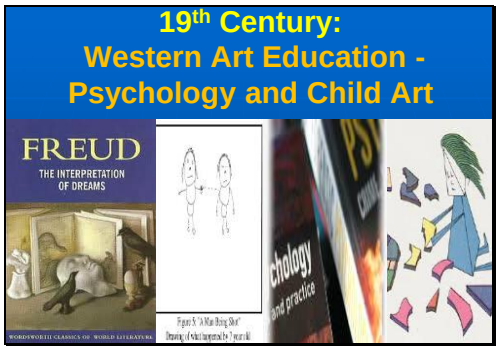
Slide 7



Slide 8

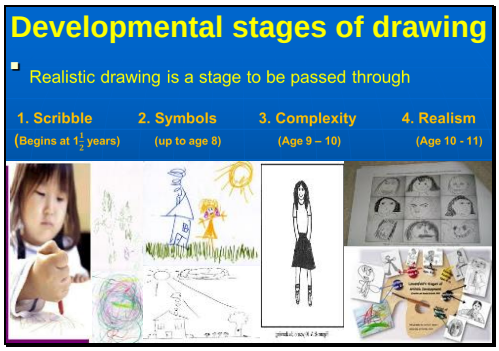
Slide 9

Slide 10



Slide 11

Slide 12



Slide 13

Stereotypical drawing

This is a schematic self-portrait of a child – about 5 years of age - who was *not* taught how to draw. Individual parts of the person is simplified – recognizable. It is a natural, typical representation/drawing.

Slide 14

Drawing has three sources:

Observation, Memory/experience, Imagination

Images: http://google.co.za/img

Slide 15

How do children learn to draw?

- Tracing
- Copying from others
- Someone correcting their lines

Slide 16

Copy drawing

- Copying is a self-taught method for those who do not have a coach that can make drawing from observation easy enough – learn.
- Harder to draw from observation than from copying from others.
- Drawing from observing a real object uses different parts of the brain.
- Copying can discourage learning to see from the real world.

Slide 17

Important

Creative art *without* copying develops high-level thinking.

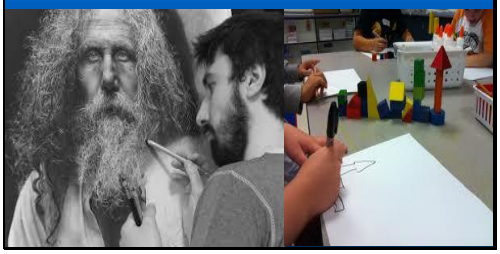
We learn to construct/make new knowledge in stead of copying old knowledge.

Slide 18

To draw from life or observation

is a traditional drawing method / technique for learning basic drawing skills

Images: **http://google.co.za/img**



Slide 19

Drawing techniques

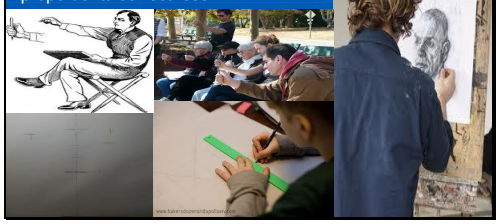
Slide 20

Measuring technique in drawing

"Sighting"

http://www.google.co.za

- proportional correctness.

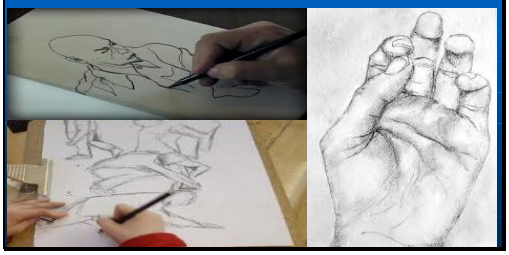


Slide 21

Blind contour drawing

Looking at *edge* of object, not paper while pencil moves.

Images: http://www.google.co.za



Slide 22

Blinder cards

Images: http://www.google.co.za/imgs

Slide 23

Viewfinders

A viewfinder isolates the important part of the subject being observed.

Slide 24

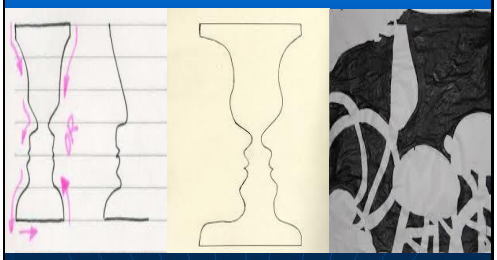
Using a viewfinder to form edges

A viewfinder is a perceptual aid.

It will help you to see or recognise the negative space around the form of the object.

Slide 25

What is negative space?



Slide 26

Move the viewfinder so that the object touches the edges of at least two points or sides of the viewfinder.

Now gaze or stare at one of the negative spaces surrounding the object until you can see it as a shape.

Slide 27

Drawing becomes easier when you draw the shape of the “space” and not the form of the object.

Remember, ‘form’ is also known as ‘positive shape’.

Slide 28

Everything you need to know in order to draw, is in the object right in front or you.

Slide 29

Getting started

Remove all your attention from your drawing.

Do that by *not looking* at the drawing.

Slide 30

If you peek/peep out of the corner of your eye, it will defeat the purpose of the exercise. (The implementation will not be successful).

Slide 31

Look at the object.

Place your eyes on any part of the object.

At the same time, place the point of your pencil on the paper.

Slide 32

Slide 33

Trust your eyes, hand and brain.

You will learn and discover that your hand moves magically according to what you see.

Slide 34

Very slowly, creeping a millimetre at a time, move your eyes along the edge of the object, observing/noticing all the detail.

Slide 35

In ordinary or every day life we do not learn to look at things/objects carefully like this.

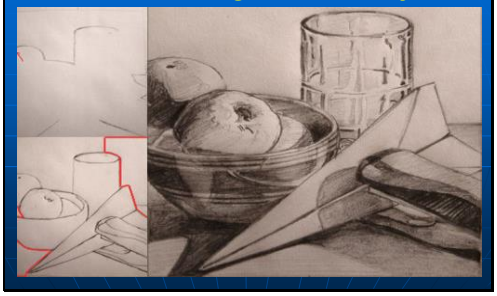
This is also a reason why so many people cannot draw.

Slide 36

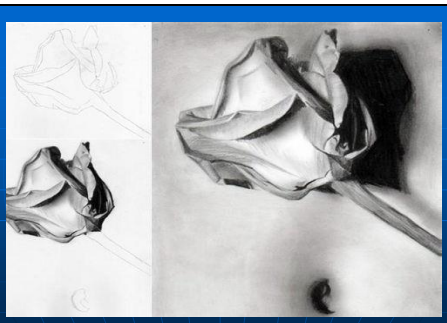
As your eyes move, also move the point of your pencil at the same slow pace, recording or copying the edge of the object. The information in the object is at the same time recorded by the pencil.

Slide 37

Record the edges of the object



Slide 38



Slide 39

Do not look at the paper. Observe the object and draw the edges, one bit at a time.

Slide 40

Don't be concerned about whether the drawing will look like the object.

Look at small bits at a time, to see things exactly as they are.

Slide 41

The movement of the pencil must match the movement of your eyes.

Don't speed up.

Slide 42

Be not afraid or worried whether the drawing will look like the object.

You have to record and copy your perceptions of what you see in front of you.

Slide 43

Do not pause but carry on at a slow, even pace.

Slide 44

You may feel uncomfortable or uneasy, but carry on drawing. Ignore the feelings of uneasiness.

Simply persist. Don't give up.

You have nothing to fear or feel nervous about.

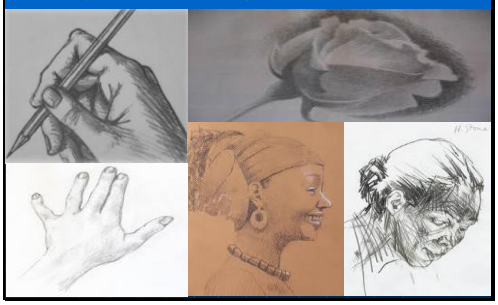
Slide 45

Draw only what you see and not what you *know*.

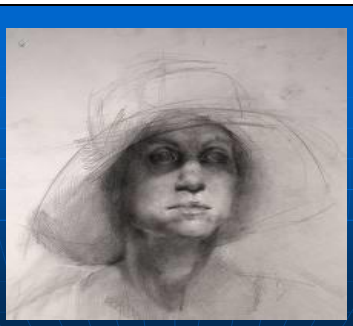
By fixing/setting your eyes on the image before you, you will create a realistic drawing.

Slide 46

Lastly:Record light and shadows



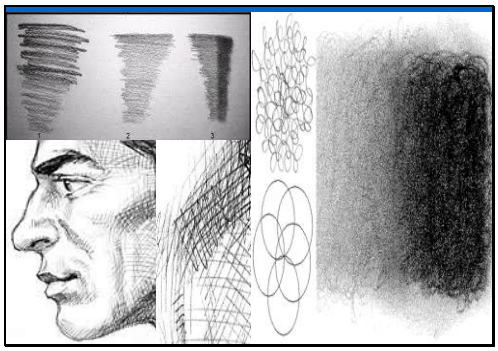
Slide 47



Slide 48

Use mark making to convey **texture** of subject matter: hatching, dashes, dots, smudges…

Slide 49

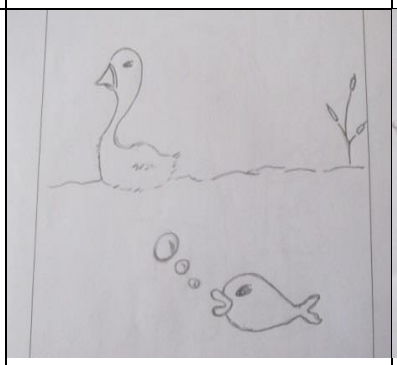
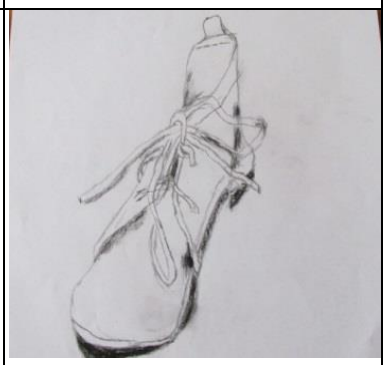
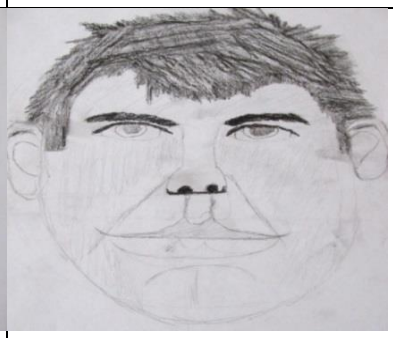


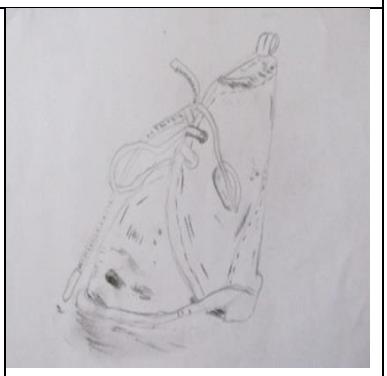
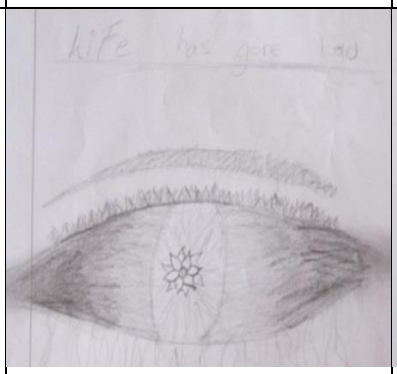
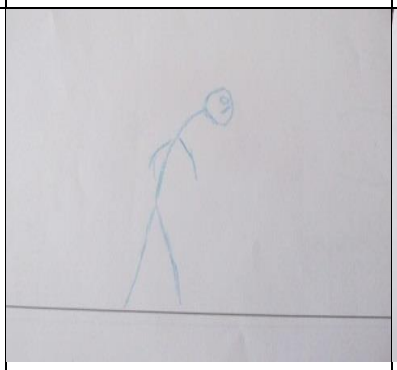
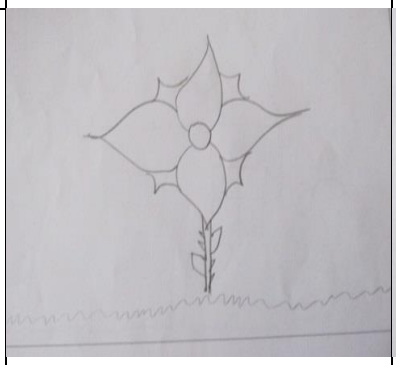
Slide 50

Slide 51

APPENDIX K

Participants' drawings: First to last entries

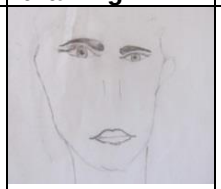
From the first entry to the last			
Participant	**Pre-intervention**	**Post-intervention**	
1			
⅓			
3			
4			

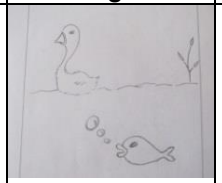
From the first entry to the last			
Participant	**Pre-intervention**	**Post-intervention**	
5			
6			
7			
8			

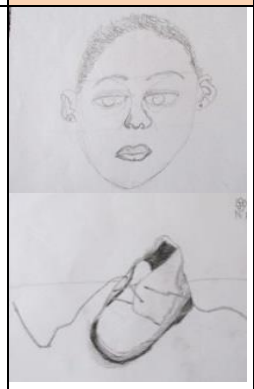
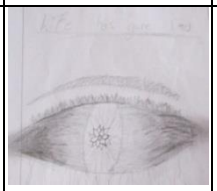
APPENDIX L

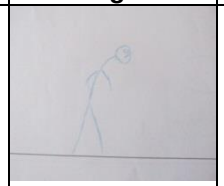
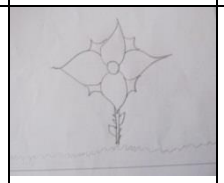
Overview of research data

Appendix L Overview of research data

	Unmediated drawing	Unmediated drawings: Interpretation	After intervention	After intervention: Interpretation
Participant 1 Biological age: 13 years		1. Stage of complexity / Dawning realism. **Actual drawing age:** 11 years. 2. Stereotypical representation. He draws from copying others, stored memory and imagination, not from observation.		***Participant 1*** grasps the concept of shifting to an altered state of awareness – being 'at one with the work'. Internal construction of perceptual skills is demonstrated in the accurate interpretation of the subject matter. His representations reflect realism. The elements of art contribute to the gestalt of the drawings. The learner has gained confidence in his creative skill. He shows great potential. He has mastered the measuring technique. The representations show exact proportional relationships in relation to the observed object and are truthful. The learner has learned how to draw realistically and to visually express himself.
Participant ⅓ Biological age: 12 years		1. Stage of complexity / Dawning realism. **Actual drawing age:** 10-11 years. 2. Stereotypical representation. He draws from tracing, stored memory and imagination, not from observation.		***Participant 2*** grasped the drawing techniques fairly quickly. He was soon fully engaged in the drawing tasks, displaying an altered state of awareness. He demonstrated an improvement in perceptual skills which is evident in the accuracy of his representations to that of the observed objects. He previously mainly drew from copying but he has gained a lot of confidence and expressed himself through his work with enthusiasm and enjoyment. His representations reflect realism. The elements of art contribute to the gestalt of the drawing. He accurately recorded light and shadow adding to the mood/metaphorical aspects of the drawing. The learner has learned how to draw and to visually communicate information obtained from the objects.

	Unmediated drawing	Unmediated drawings: Interpretation	After intervention	After intervention: Interpretation
Participant 3 Biological age: 12 years		1. Stage of realism. **Actual drawing age:** 10-11 years. 2. Stereotypical representation. Her passion for realism or naturalism is at full bloom. She is creative but draws from copying others, stored memory and imagination and not from information obtained from the objects. Her representation is schematic and does not reflect realism.	 	**Participant 3** initially struggled with blind contour drawing and took longer than most of the other participants to master the technique. Once she had grasped blind contour drawing, she gained confidence and was soon fully engaged in the drawing task. The internal construction of perceptual skills is demonstrated in the accurate interpretation of subject matter rendered. Her representations reflect realism. The elements of art contribute to the *gestalt* of the drawings. Correct proportional relationships in relation to the observed objects are recorded. Her representations are truthful. The participant accurately recorded texture, light and shadow, reflecting that of the observed object. Her drawing works display creativity, adding expression and character to her drawing works. The participant has learnt how to draw realistically and to visually communicate information as observed in the objects,
Participant 4 Biological age: 13 years		1. Stage of complexity / Dawning realism. **Actual drawing age:** 10-11 years. 2. Stereotypical representation. She draws from 'how to draw books', stored memory and imagination, not from observation. She drew flowers and a vase, a fashion model with big hair and lots of detail, indicative of her sex and girls of this drawing stage.	 	***Participant 4*** has learnt how to draw in a step by step manner. He grasped the concepts and demonstrated an altered state of awareness. He was fully engaged in the drawing tasks. He has constructed new knowledge and developed skill. An improvement in perceptual skills is observed. As a result the drawing reflects realism and exactness if compared to the observed object. The subject matter or 'facts' are accurately interpreted. Correct proportional relationships are achieved and his representations are truthful. Recording of light and shadow need work in order to reflect the information in the observed subject matter more accurately. The participant mastered contour drawing. The art elements hang together to form a strong whole. Metaphorical communicative aspects are evident in the final product. The drawings are creative and self-expressive. The participant draws with improved confidence, enthusiasm and enjoyment, an indication of developed intrinsic motivation and autonomy.

	Unmediated drawing	Unmediated drawings: Interpretation	After intervention	After intervention: Interpretation
Participant 5 Biological age: 12 years		1. Stage of complexity / Dawning realism. **Actual drawing age:** 9-10 years. 2. Stereotypical representation. She draws from 'how to draw books', stored memory and imagination, not from observation. She drew flowers and a vase, a fashion model with big hair and lots of detail, indicative of her sex and girls of this drawing stage.		***Participant 5:*** The accurate interpretation of the subject matter is an indication of the internal construction of perceptual skills. The participant struggled with contour drawing but soon grasped the concept. She was fully engaged in the drawing tasks while drawing with her eyes fixed on the objects. The elements of art contribute to the gestalt of the drawing. Correct proportional relationships, in relation to that of the observed object still need work. However, she has made huge improvements and her representations look truthful. The recording of texture, line, light and shadow also need more practice but the art elements form a strong whole displaying creativity, adding expression and character to the drawings. The learner has learnt how to draw.
Participant 6 Biological age: 12 years		1. Stage of complexity / Dawning realism. **Actual drawing age:** 10-11 years 2. Stereotypical representation. She draws from copying others, stored memory and imagination, not from observation. She added detail to basic form, in her yearning to achieve realism. She drew an eye with a flower and prominent eyelashes indicative of her sex and girls of this drawing stage. She expressed originality by expressing personal feeling which added metaphorical value to her representation.		**Participant 6:** The internal construction of perceptual skills is demonstrated in the accurate interpretation of the subject matter. Her representations reflect realism. The learner grasps the concept of an altered state of awareness. She was fully engaged in the drawing tasks. The elements of art contribute to the gestalt of the drawings. Correct proportional relationships in relation to the observed object result in balanced and truthful representations. She has mastered drawing from observation. She displays enthusiasm and increased confidence in her creativity.

	Unmediated drawing	Unmediated drawings: Interpretation	After intervention	After intervention: Interpretation
Participant 7 Biological age: 12 years		1. Schematic stage. **Actual drawing age**: 5–6 years 2. Stereotypical representation. He repeats the same drawings over and over again, using adjustments to basic forms. He draws by tracing, stored memory and imagination.		**Participant 7:** Although some internal construction of perceptual skills is evident in the representations, it still needs work. The elements of art are not strong enough and too lean to communicate the theme of the subject matter and to contribute to the gestalt of the drawing. Proportional relationships need work as they do not accurately reflect that of the observed objects. The contours of the objects are not reflected accurately. The learner does not fully grasp the concept of shifting to a particular way of seeing – experiencing an altered state of awareness. He was not relaxed and experienced anxiety and showed signs of frustration and embarrassment. However, he gained confidence and was more enthusiastic when required to draw.
Participant 8 Biological age: 12 years		1. Stage of complexity / Dawning realism. **Actual drawing age:** 9-10 years. 2. Stereotypical representation. She draws from stored memory and imagination, not from observation. She drew a flower, indicative of her sex and girls of this drawing stage. She added more detail hoping by this means to achieve realism.		***Participant 8*** grasped the concept of shifting to a particular way of seeing. She experienced an altered state of awareness – being at one with the work. Her representations show improvement in perceptual skills. The internal construction of perceptual skills is demonstrated in the accurate interpretation of the subject matter. The elements of art contribute to the gestalt of the drawings. She successfully applied the measuring technique. Her representations show accurate proportional relationships and are balanced and truthful. She has mastered drawing from observation and learnt how to draw realistically. Her drawings reflect exactness if compared to the observed objects. With more practice added to the acquired knowledge and skill, she will be able to refine her work and develop her creative ability to the full.

APPENDIX M

Coding of the textual and pictorial data

Themes	Conventional coding and "data segmenting" drawn from the literature	Pictorial coding or 'index words' from scrutinising the drawings of the participants
1. Internal construction of perceptual skills	Visual knowing; Vision; Cognition; Knowledge; Internal construction; Organising; Simple knowledge; Identification of the elements of art; Careful observation; Visual learning; Development of high-level thinking; Aesthetic appreciation.	*accuracy; proportional correctness; balanced drawing; drawing skills; mastery; construct. gestalt; competence, studying an object; looking real; form; line; texture; composition; light and shadows; realism; mastery.*
2. Creativity	Knowledge and skill; Self-expression; Development of visual literacy; Competence; Urge to get better; Produced by engagement; Independence; Interest or enjoyment.	*drawing techniques; development of technique; learned how to draw; drawing skills; development of skills; realism; sketch; enjoyment; fun; self-expression; empowerment; learned how to draw, drawing skills, empowerment*
3. Cognitive-shift	Development and improvement of concentration; Close observation; Engaging with the object; Cognitive shift from verbal to non-verbal; Accurate and realistic representation.	*another way of seeing; engagement; focused observation; accuracy; gestalt; correct form; realistic presentation; competence.*
4. Drawing as an artistic end	hands; senses; mind; artistic; empirical, art experience, experimentation, knowledge; challenge; artistic; manipulation of material; visual perception; observation skills; visual literacy.	*creativity; improvement; mastery; construct; light and shadows; composition, likeness; mood; line; sketch; texture; realism; recording of facts; drawing technique; proportional correctness; gestalt; subject matter; artistic.*

APPENDIX N:

Teachers' resource pack

PowerPoint presentation

Slide 1

A Methodological framework for drawing

Compiled by Leana Pretorius
Cell: 082 415 0473
Date: October 2015

1

Slide 2

Curriculum expectations

Basic skills of Visual Art:

Drawing & perceptual skills.

Primary function of Visual Art:

Visual literacy, creating in 2D & 3D.

Curriculum highlights:

Active and critical learning and progression in skills.

2

Slide 3

Foundation for Visual Arts grades 10-12 to be laid in grades R - 9.

Main aim of the Arts curriculum:

Equip learners with adequate basic skills - study further in art forms of their choice.

3

Slide 4

Drawing has three sources:

Observation, Memory/experience, Imagination

Images: http://google.co.za/img

4

Slide 5

How do children learn to draw?

- Tracing
- Copying from others
- Someone correcting their lines

5

Slide 6

Stereotypical drawing

Schematic drawing - 12 year old girl - *not* taught how to draw. Individual parts of the cat is simplified but recognisable - natural, typical representation.

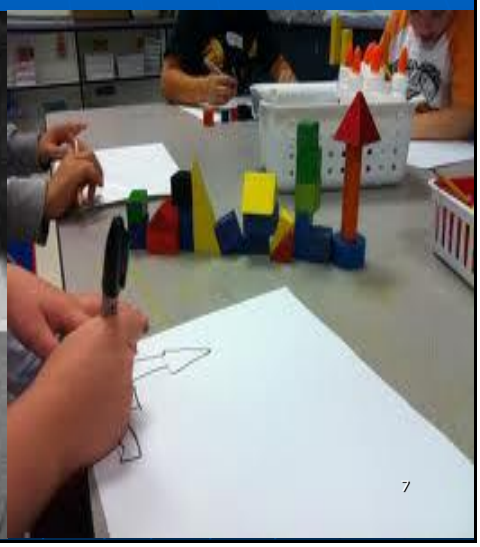
6

Slide 7

To draw from life or observation

Close observation of an object - drawing directly from it.

Images: **http://google.co.za/img**



7

Slide 8

Observation drawing

8

Slide 9

Getting started

Collect drawing material for drawing session:

Drawing sheets, erasers, pencils, blinder cards, view finders.

Pencils: 

Blinder card: 

Viewfinders: 

9

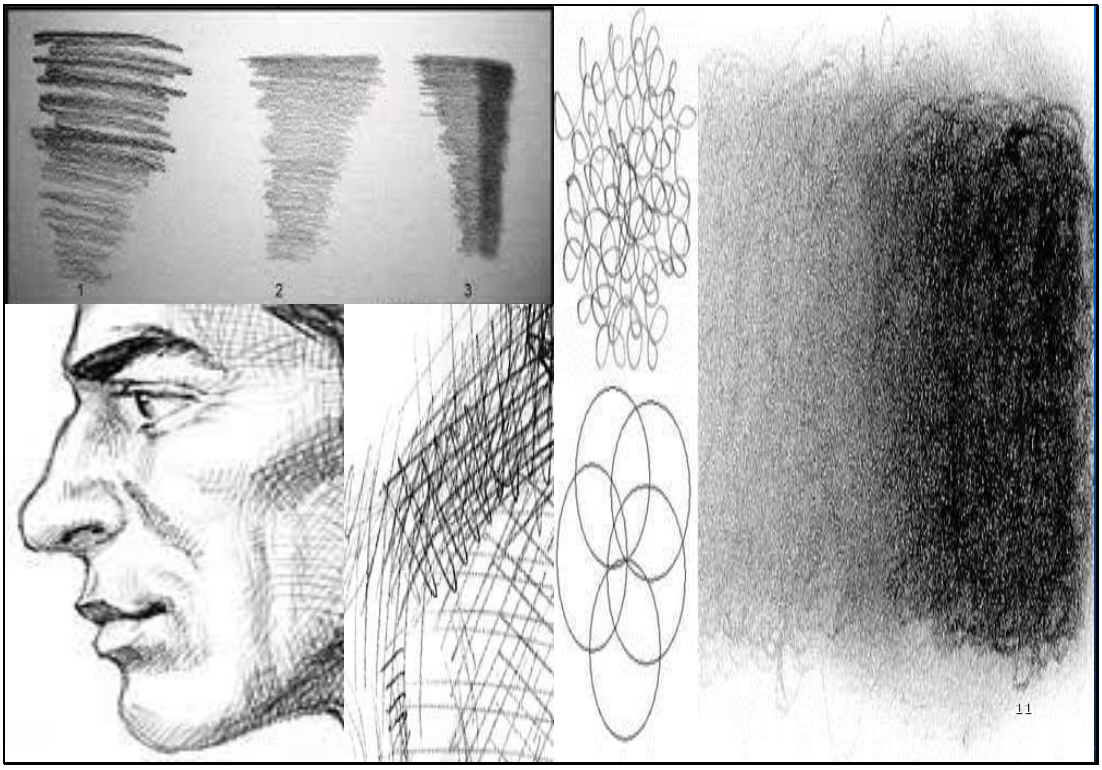
Slide 10

Practise making marks with a pencil

Use mark making to convey texture of subject matter: hatching, dashes, dots, smudges…

10

Slide 11

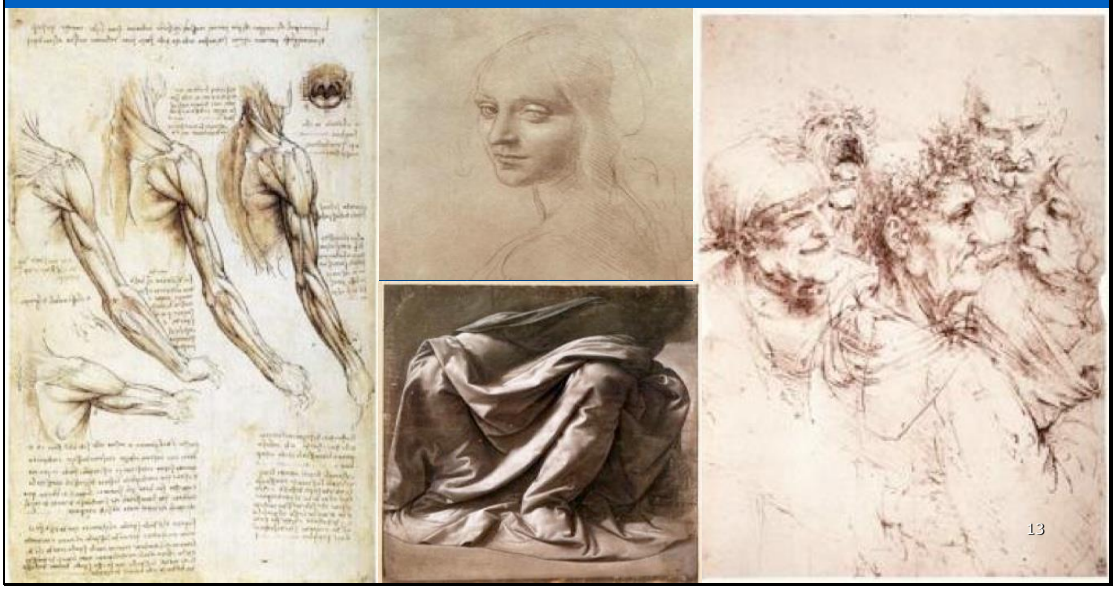


Slide 12

Slide 13

Famous drawers: 16th Century

1452 – 1519: Leonardo Da Vinci



Slide 14

1475 – 1564: Michelangelo

Slide 15

Choose objects – not difficult but unfamiliar enough to encourage drawing from observation

15

Slide 16

Drawing techniques

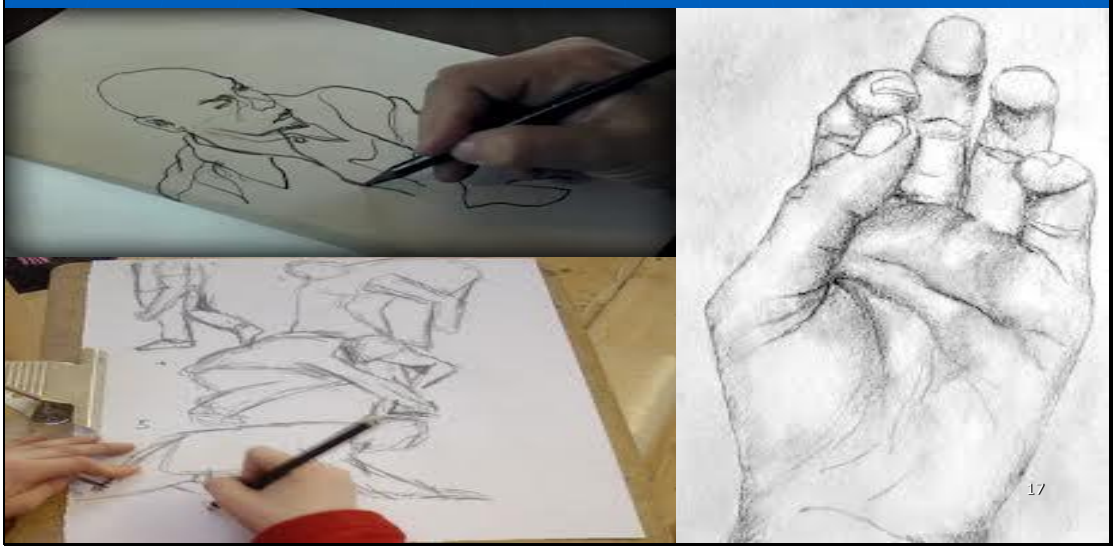
16

Slide 17

Blind contour drawing

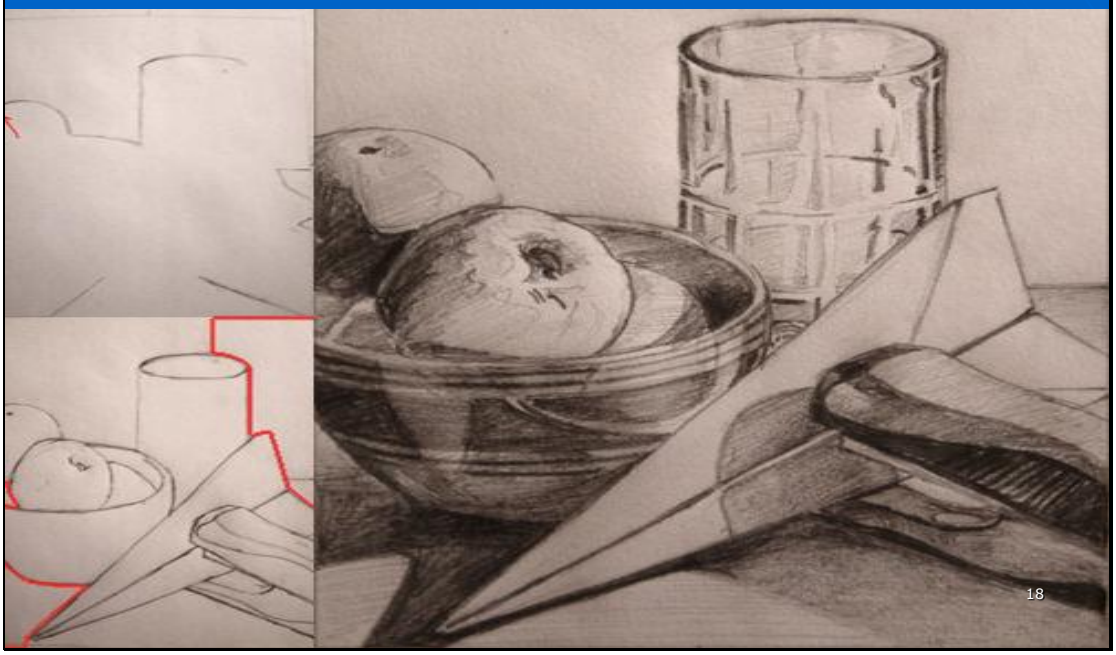
Looking at *edge* of object, not at the paper while the pencil moves.

Images: http://www.google.co.za



Slide 18

Record the edges of the object



Slide 19

Do not look at the paper.
Observe the object and draw the edges, one bit at a time.

19

Slide 20

Blinder cards

Images: http://www.google.co.za/img

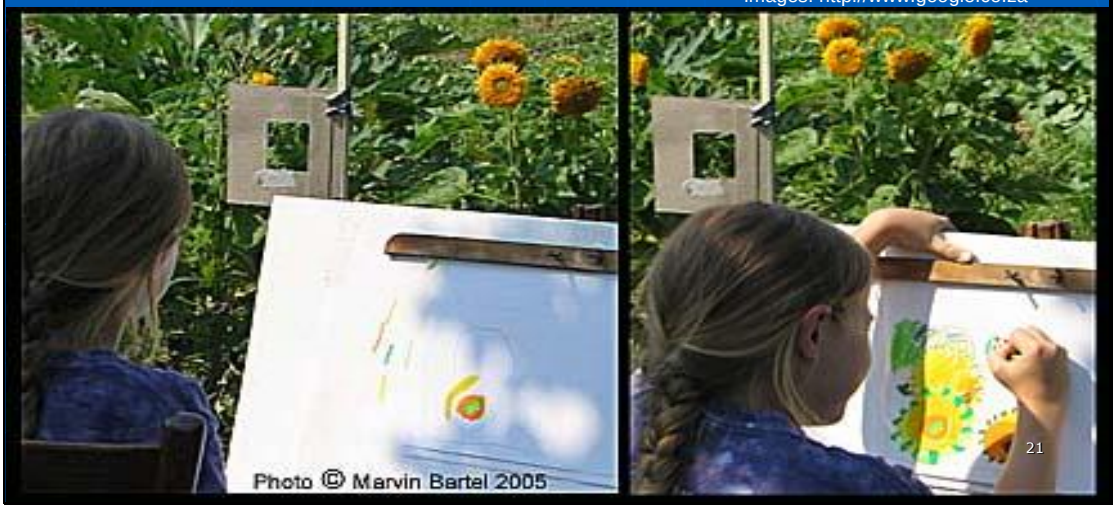
20

Slide 21

Viewfinders

A viewfinder isolates the important part of the subject being observed.

Images: http://www.google.co.za



Slide 22

Using a viewfinder to form edges

A viewfinder is a perceptual aid.

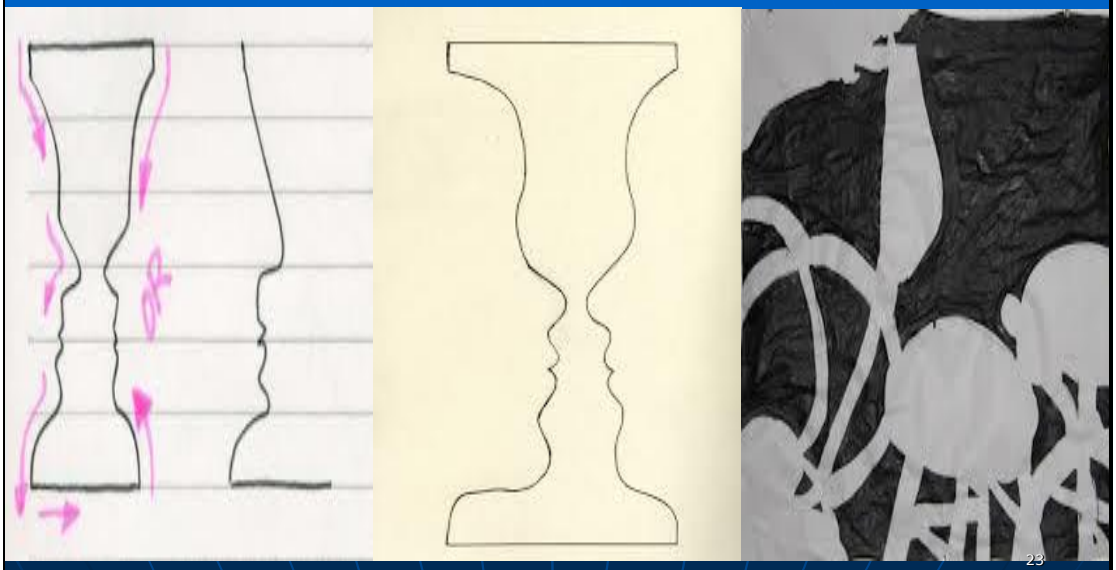
It will help you to see or recognise the negative space around the form of the object.

22

Slide 23

What is negative space?

Images: http://www.google.co.za



23

Slide 24

Move the viewfinder so that the object touches the edges of at least two points or sides of the viewfinder.

Now gaze or stare at one of the negative spaces surrounding the object until you can see it as a shape.

24

Slide 25

Draw the shape of the “space” and not the form of the object.

Remember, ‘form’ is also known as ‘positive shape.

25

Slide 26

Measuring technique in drawing

“Sighting”

http://www.google.co.za

- proportional correctness.

26

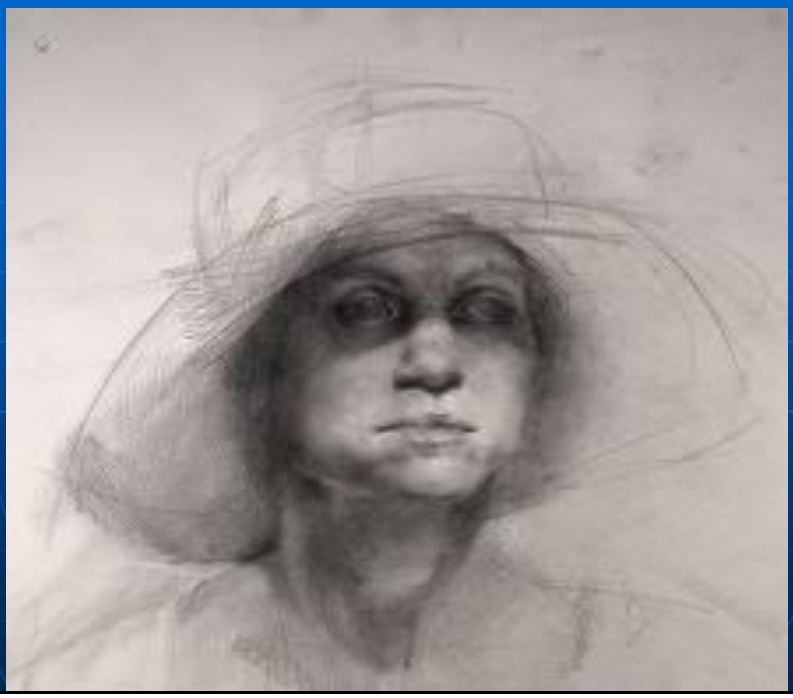
Slide 27

Recording of light and shadow

Images: http://www.google.co.za

Slide 28

Images: http://www.google.co.za



28

Slide 29

There is only one way to draw…physical contact with all sorts of objects through all the senses

Kimon Nicholaides (1982-1938)

29

Slide 30

References

Bartel, M.(2009). Art Rituals in the Classroom. http://www.goshen.edu.art/ed//ritual.html.

Betty Edwards, 1982. *Drawing on the right side of the brain:* How to unlock your hidden artistic talent. London: Harper Collins.

Images: http://www.google.co.za

30

Teachers' resource pack: Checklist for learners

Checklist for learners

1. I now believe…

drawing is much more than a fun activity.		I still do not know how to draw.	
I can draw.		I need more practice	

2. Rate your progress. Since starting to practise this drawing method, I have improved…

Not at all.		A little.	
Very little.		A lot	

3. My drawings look

the same than before.	
almost real.	
real.	

4. My drawing ability has benefitted the most from…

improved observation skills.		blind contour drawing.	
measuring technique. (sighting)		recording light and shadow.	

5. I find this technique the most difficult to do:

Drawing from observing the real object.		Blind contour drawing.	
Measuring technique. (sighting)		Recording light and shadow.	

Teachers' resource pack: Rubric

Rubric (Evaluating of observation drawing techniques)		**Score: /15**	
Criteria	**Mastered = 3 marks**	**Partially mastered = 2 marks**	**Not mastered = 1 mark**
1. Drawing from observation: *Realism/Gestalt*	Internal construction of perceptual skills demonstrated in accurate interpretation of subject matter. Representation reflects realism. Elements of art contribute to the gestalt of the drawing. The learner has learned how to draw.	Recording of subject matter needs work. The elements of art are too lean to communicate the theme of the subject matter, and to contribute to the *gestalt* of the drawing.	The drawing is stereotypical. Contour drawing is not mastered. Not drawing from the structural elements of the object Not drawing from observation.
2. Proportional correctness: *Sighting*	Correct proportional relationships in relation to the observed object. Balanced, truthful representation.	Proportional relationships need work. Balance of the representation does not contributing to the *gestalt*.	Measuring technique has not been mastered. Drawing does not reflect proportional correctness
3. Art elements: *Line, texture, light, shadow*	Accurate and truthful recording of texture, line, light and shadow, truthfully reflecting that of the observed object, adding to the theme/mood of the subject matter.	Recording of texture, line, light and shadow needs work. Drawing does not significantly reflect the information in the observed subject matter.	Poor recording of texture, line. Accurate recording of light and shadow has not been mastered. Incorrect and stereotypical recording of art elements of the subject material.
4. Technique: *Blind contour drawing*	Mastered blind contour drawing and drawing from negative shapes. As a result, the drawing reflects realism and exactness of form and shape if compared to the observed object.	Contour drawing needs work. Learner does not record perceptions and information of the subject matter accurately.	Perception of edges and space has not been mastered. The shape of the object does not resemble that of the observed object.
5. Creativity/ metaphorical aspects: *Expression and creativity*	Art elements form a strong whole displaying creativity, adding expression and character to the drawing. Learner had learnt how to draw realistically and to visually communicate emotions.	Art elements too lean. Theme of subject matter poorly communicated, lacking self-expression. Internal construction of visual information needs work.	Drawing does not communicate emotions or express creativity. Learner has not mastered the realistic drawing techniques.

APPENDIX O

Turnitin report

Turnitin Originality Report

A methodological framework for observation drawing: empowering middle childhood Visual Arts learners with visual literacy skills by Leana Pretorius

From A methodological framework for observation drawing (training_turnitin26_2012)

Similarity Index	Similarity by Source	
4%	Internet Sources:	3%
	Publications:	2%
	Student Papers:	N/A

Processed on 24-Aug-2015 14:34 SAST
ID: 563266822
Word Count: 37899

sources:

1 < 1% match (Internet from 31-Oct-2010)
http://www.education.gov.za/Curriculum/LPGs2007/LPG%20VISUAL%20ARTS.pdf

2 < 1% match (Internet from 13-Mar-2010)
http://bartelart.com/arted/blindcontour.html

3 < 1% match (Internet from 16-Aug-2003)
http://facweb.cs.depaul.edu/sgrais/midterm_review.htm

4 < 1% match (publications)
Kover, D. J., and F. C. Worrell. "The Influence of Instrumentality Beliefs on Intrinsic Motivation: A Study of High-Achieving Adolescents", Journal of Advanced Academics, 2010.

5 < 1% match (publications)
Clare, S.. "Drawing and the cerebral hemispheres: Bilateral EEG alpha", Biological Psychology, 198302/03

6 < 1% match (Internet from 12-Sep-2014)
http://e-classroom.co.za/wp-content/uploads/2014/01/IP_LIFESKILLS_GR4-6.pdf

7 < 1% match (publications)
Kurczynski, Karen. "Drawing is the New Painting", Art Journal, 2011.

8 < 1% match (Internet from 24-Mar-2014)
http://.google.com/rt.ac.uk/your-guide-to-

9 < 1% match (Internet from 26-Jun-2012)
http://tutorme.za.net/Assets/Visual_Arts.pdf

10 < 1% match (Internet from 19-Aug-2012)
http://www.hbs.edu/research/pdf/12-096.pdf

APPENDIX P

Editor's disclaimer

Mrs ME Joubert

Faerie Glen

Pretoria

0043

15 August 2015

EDITOR'S DISCLAIMER

I hereby declare that as the professional language editor of a master's dissertation written by Ms Leana Pretorius, I have no legal claim to the information therein. I did not rewrite the material. I edited and proofread the text. I edited the front and back matter, cross-checked the headings of the figures and tables. I cross-checked the text and bibliographic references and edited the actual bibliography.

Title: "A methodological framework for observation drawing: Empowering middle childhood Visual Arts learners with visual literacy skills"

ME Joubert

Cell 082 323 0939

moywords@gmail.com