

DEVELOPMENT OF DRAWING ABILITY AND THE ATTITUDES AND
PRACTICES TOWARDS CHILDREN'S DRAWINGS IN
STEINER AND NATIONAL CURRICULUM SCHOOLS

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ABSTRACT

Among educationalists there is some uncertainty about how best to teach children drawing skills and among psychologists there is uncertainty about how different approaches might influence children's drawing development. In the National Curriculum children are taught both expressive and representational drawing ability, but there is concern that the arts are being 'squeezed out' in favour of more 'academic' subjects. In contrast, children in Steiner schools experience less directive instruction in drawing, but experience an education where the arts and creativity are highly valued. However, little is known about the home drawing experiences of these pupils and the views of their teachers. This thesis aimed to identify similarities and differences in the drawing abilities and styles of pupils and the drawing attitudes and practices of the pupils, their parents and teachers.

In study one expressive, representational and free drawings of 180 pupils (age 6 to 16 years old) were assessed for ability, style and creative intention. In study two 180 pupils, their teachers and parents were surveyed about attitudes and practices relevant to children's drawing experiences.

Steiner pupils were found to have superior representational drawing ability but no consistent between-school differences were found in expressive drawing ability. Stylistic difference were evident in the free drawing. Drawing attitudes and practices of children were generally positive and few between-school differences identified. Parents and teachers associated with the Steiner schools tended to value drawing more highly, were more aware of the wider benefits of children engaging in art. However, National Curriculum teachers and parents tended to be more involved with children's drawing experiences.

The studies presented in this thesis represent ground breaking research comparing drawing ability, and the art attitudes and practices that shape children's artistic experience in their respective Steiner and National Curriculum schools as well as their homes. More similarities were identified than anticipated. This suggests that school and home drawing environments may be less influential than previously thought. Alternatively, there might be fewer differences between the school types than the curricula suggest. Consequently, future research should consider the artistry of teachers and parents and observational data of classroom art lessons and home drawing experiences.

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CHAPTER 1: INTRODUCTION

This chapter gives a brief overview of the history of the study of children's drawing, before considering what the benefits of engaging in drawing are. This overview provides a clear rationale for why children's drawing experiences are important and the scientific attention that children's drawings have received. This leads onto a discussion of how children's experiences of drawing and developing drawing skills can be best supported in schools. After reviewing how approaches to teaching drawing have varied over time a more detailed description of the English National Curriculum for Art and Design and the Steiner/Waldorf approach to art education is given. These are two current, and seemingly contrasting, curricula both practiced within England. As such these provide an opportunity to investigate how different educational approaches may influence children's drawing development and their drawing attitudes and practices. It is these investigations which are the focus of this thesis.

1.1 History of the Study of Children's Drawings

For over one hundred years, the drawings of children have been admired and studied by a diverse audience including psychologists, artists, educators and art historians. Some of the earliest interest came from the late 18th century romantic artists who admired the drawings of children for their apparent simplicity and innocence. Some artists moved away from the traditional desire to create realistic and life-like representations and instead aimed to create drawings which attempted to capture the child-like qualities of inventiveness and expressive creativity (Golomb, 2002). More recently, throughout the 20th century, modern artists have studied and collected children's drawings as a source of inspiration for their own artwork. For example,

Fineberg (1997) shows examples of the influences of the children's artwork on the pictures created by Kandinsky, Klee, Miro and Picasso among others.

Another early interest in children's drawings was based on the recapitulation theory, a theory of evolution. It was thought that by studying children's drawings insight could be gained into how our ancestors developed their drawing skills. However, one has only to look at the cave paintings that our ancestors created to see that they do not bear much resemblance to the drawings of young children (Golomb, 2002). While the cave paintings show a high level of skill development and artistic mastery, this is lacking from the delightful, but nonetheless crude drawings, created by children. Furthermore, if cave paintings are considered in the order to which they have been dated they do not show a linear progression towards realism. Instead, similar styles of depiction can be seen across different historical periods (Jolley, 2010). The recapitulation theory has now been largely discredited by both commentators of cave art, such as Bahn (1996) and Clottes (1996), and experts in the field of child art (e.g. Cox, 2005; Golomb, 2002; Jolley, 2010). Although ultimately discredited this re-capitulation theory of children's drawings did increase scientific interest, particularly in the developmental changes in children's drawings. This was reflected by the growing trend of collecting, describing and cataloguing of children's drawings in the latter part of the 19th century.

Probably the earliest collection of children's drawings on record are those of Ricci (1887). His observations of the development of children's drawings of the human figure remain important a century later (Cox, 1993) and this focus on developmental changes reflects early psychologist's interest in children's drawings (e.g. Cooke, 1885; Luquet, 1927, Burt, 1921). Luquet's theory of drawing development has arguably been the most influential. Luquet (1927/2001) proposed that children progress through five phases in their development of representational

drawing ability. On passing the *scribbling period* they enter the phase of *fortuitous realism*. Although the drawings produced still resemble little more than scribbles the child (fortuitously) notices a similarity between a mark, or marks, with something from life, such as a tree. Over a period of time the child becomes more consistent in the marks they make and the corresponding labels they place on them. This develops into the child beginning to have representational intentions prior to mark making. When the child consistently takes this a priori representational approach he or she is entering the third stage, that of *failed realism*. It is during this period that adults begin to recognise the topics children are intending to draw. However, there appear to be some ‘mistakes’ in these drawings. For example, important features of the topic may have been omitted and idiosyncrasies in the associations between the details present (e.g., the tadpole form of the human figure drawing, in which the body appears to be missing and the arms and legs are drawn from the head).

With improvements in attention and concentration the child’s drawings gradually become more characteristic of the fourth stage, that of *intellectual realism*, with the child now depicting the salient features of topics. However, it is so important to the child to depict these salient features that new drawing ‘errors’ can be seen. For example, separating out some of the details, transparency, drawing some features as a plan as if seen from directly above the topic, and folding out certain parts of the topic (such as rooms in a house). There comes a point when, Luquet argues, the child becomes concerned that this “multi-perspective” mode of depiction renders the drawing different from how the actual topic is seen in life. A desire to produce life-like representations takes the child into Luquet’s fifth phase, that of *visual realism*. The child now attempts to draw only those details that can be seen from one visual perspective (and tries to draw the shapes of these features as they appear from that single perspective). Luquet’s account of development progression in children’s

drawings has been influential to more general theories of child development as it was taken on by Piaget and was influential to his more universal approach to children's mental development (Light & Barnes 1995). Although Luquet's theory is often portrayed as a stage theory, this is not how he meant it to be interpreted. In Luquet's (1927) in-depth account of his theory, which has only relatively recently been translated to English (Luquet, 1927/2001), Luquet clearly argued that the transition between stages is gradual, commenting that representations typical of a previous stage are still seen when the child adopts a mode of representation characteristic of the next stage (see Jolley, 2010).

More recent contributions to the understanding of the developmental progression of children's drawings have included Karmiloff-Smith's (1992) theory of representational redescription (RR theory). This aims to explain cognitive development in a wide range of domains, including drawing. Essentially Karmiloff-Smith proposes that the changes that children are able to make to their representational drawings inform us about how the corresponding internal representations are stored. She argues that young children only have implicit access to their internal representations and therefore the drawings of these young children are procedurally rigid. Thus, every time an individual child draws a human figure they draw the various body parts in the same sequence. It is further claimed that as children get older and their internal representations become more explicitly accessible this is reflected in their drawings becoming more flexible. However, research evidence has not supported this (Barlow, Jolley, White & Galbriath, 2003; Berti & Freeman, 1997; Bremner, Morse, Hughes, & Andreasen, 2000) and the application of the RR theory to drawing has now largely been discredited (e.g. Cox, 2005; Jolley, 2010).

Focus on developmental changes in children's has encouraged some psychologists trying to develop links between drawing ability and general intelligence.

For instance, Ivanoff (1909) worked out a method of scoring children's drawings according to a six point scale that incorporated: a) sense of proportion, b) imaginative concepts, c) technical and artistic value. Ratings were compared with teacher's ratings of general ability, capability in each of the school subjects and certain moral and social trials. A positive correlation was found in nearly all instances. This led to further studies investigating the strength and reliability of using children's drawings as a measurement of intelligence (for a reviews see Kahill, 1984; Motta, Little, & Tobin, 1993). The main exponent of this approach was provided by Florence Goodenough (1926) in her 'draw a man test' which was later revised by Harris (1963). There is some evidence that the reliability of these tests is good (Williams, Fall, Eaves, & Woods-Groves, 2006) however research into their validity is less convincing (Abell, Von Briesen & Watz, 1996; Motta, Little, & Tobin, 1993). Hence, the 'draw a man test' is no longer regarded as a valid measure of intelligence although it still suggested to have use as a screening test for those with below average intelligence (Abell, Wood & Liebman, 2001).

Although many psychologists focused on developmental patterns in children's drawings others concentrated on the subject matter that children spontaneously draw. Early literature frequently comments that children like to draw the human figure by preference (Luquet, 1913; Maitland, 1885). Later studies generally confirm this, although McCarty (1924) found that houses, trees, furniture, boats, vehicles and animals were all popular. Furthermore, when the topics were broadly grouped in to 'aspects of nature' or 'buildings' the frequency with which these items were drawn slightly exceeded the proportion of children drawing 'persons' (McCarty, 1924). Although many studies of children's developmental progression in drawing has focussed on human figure drawings there has also been some research into other subject matter. For example, Kerr (1937) and Markham (1954) found consistent

qualitative age related changes in children's drawings of houses. Graewe (1935) found evidence of developmental progression in children's drawings of animals and DuBois (1939) reported on the standardization of a 60-point Goodenough-type scale for the drawing of a horse. It seems that more recent research has not considered the frequency of children's preferred subject matter in their spontaneous drawings, for although experts (e.g. Cox, 2005; Di Leo, 1970, Golomb, 2004) in the study of children's drawings comment on the popularity of drawing the human figure they do not cite recent evidence supporting this. Maybe this reflects the more recent research trend to give children relatively prescriptive tasks, with the goal of controlling for confounding variables. This is in contrast to the methods employed by early child psychologists who concerned themselves with collecting and cataloguing unprompted drawings.

From the 1940s a new interest in children's drawings began to develop, the idea that the children's drawings could provide insight into a child's thoughts and feelings. Drawings began to be used to assess personality and psychological adjustment. As with other projective methods, such as the well-known Rorschach ink blot test, the interpretation of the drawing often relied more on intuitive and subjective impressions rather than scientific analysis. The lack of consistency of interpretations is confirmed in reviews addressing the reliability and validity (for a summary see Jolley, 2010) However, survey work carried out in America indicates that clinical psychologists still use drawing tests frequently as indicators of psychological maladjustment or personality disorder (e.g. Cashel, 2002; Watkins, Campbell, Nieberding & Hallmark, 1995). Conversely, the results of a British survey imply that clinical psychologists, even those working primarily with children, use drawing tests only sparingly (Bekhit, Thomas, & Jolley 2005).

An alternative approach to studying the emotional communication in the drawings children from an artistic/aesthetic perspective began in the last quarter of the 20th century. A number of comprehensive studies mapping the developmental progression in children's use of expressive techniques, as well as the overall expressive quality of their drawings drawing, have now been published (e.g. Davis, 1997, Jolley, Fenn & Jones, 2004; Pariser & van den Berg, 1997; Winston, Kenyon, Stewardson, & Lepine, 1995). However, the question of a universal developmental pattern of expressive/aesthetic drawings has been difficult to establish principally due to the subjective nature of evaluating expressive work and the differing art values that may be used to make such judgements (Pariser & van den Berg, 1997). Nonetheless a consistency in the evidence is emerging that generally children's expressive drawing abilities develop in an age-related incremental pattern with slow periods of growth (Jolley, 2010).

Other topics of interest concerning children's drawing have been the examination of cross cultural differences (e.g. recent studies include Huntsinger, Jose, Krieg & Luo, 2011; Kebb & Vinter, 2013; Taguchi, 2010), drawing development in special populations (e.g. recent articles include Chong, Mackey, Stott, & Broadbent, 2013; Hudson & Farran, 2013; Jolley, O'Kelly, Barlow, & Jarrold, 2013), and children's own understanding and preference for pictures (see summary by Jolley & Rose, 2008). However, like the research approaches described above the focus has predominantly been on the end product, the drawings themselves, and explaining the differences found. This is in contrast to the perspective taken by art educationalists who assume that the real purpose of drawing is the educational benefits that accrue from engaging in the drawing process (e.g. Barnes, 2002; Matthews, 2003). The following section summarises the claims, and evidence for, the benefits for children by engaging in art (with a particular emphasis on drawing).

1.2 Benefits of Drawing

Drawing is a uniquely human activity involving both semantic and motor development. It represents one of the significant developments of the human mind. Learning to draw enables children to appreciate art and equips them with sufficient skill to express themselves (Hetland & Winner, 2004) and their individuality through a tangible form (Barnes, 2002). When children begin drawing subject matter from real life, they not only begin to learn hand-eye coordination, but to study their subjects carefully, thereby developing visual sensitivity. As they learn to see in more specific ways they can disregard what is merely superficial and become attentive to the more subtle qualities and changes of form, gaining greater insight into the world around them (Barnes, 2002). When being encouraged to draw, children will learn how to make choices about what to depict and how to depict it. Golomb (2004) suggests that drawing, more than other symbolic systems, is a truly creative activity for the child, who has to invent, or at the very least reinvent, across cultures and generations, a basic vocabulary of graphic shapes. This, Golomb suggests, is a remarkable feat as there are few 'models' available to the young child. This contrasts with the spoken word where 'models' for the child to imitate are abundant. Golomb's suggestion is a substantiation of Freeman's (1980) belief that drawing is a problem solving activity for children, as it is a very difficult task, for which many strategies are possible, but not all of which will pay off. Furthermore, through art children can learn to adapt and change ideas in an imaginative way (Barnes, 2002) and that, as with most things, drawing ability will improve with practice. If a portfolio of work is kept, after a few months they will be able to look back and see how much their work has improved since the earlier attempts.

The claims made above are based on anecdotal and theoretical accounts. The small emerging body of empirical research considering the benefits of drawing will

now be considered. It is often commented that involvement in the visual arts may foster general creative development in emerging creative thinking skills. Moga, Burger, Hetland and Winner (2000) investigated just this question through reviewing the ten relevant studies which were identified after extensive searching. The first meta-analysis, based on four correlation studies, indicated a modest association between studying the arts and creative thinking ($r=0.28$). However, in three of the included studies students self-selected themselves into the arts, therefore it is possible that those who had 'better' creative thinking choose to study the arts. Modest evidence for a causal relationship was found when reviewing the experimental studies between arts participation and figural creative thinking ($r=.15$). However this finding needs to be considered with caution as file drawer analysis indicated that only 11 studies averaging null results would be required to reduce the significance to below .05. Furthermore the 95% Confidence Interval was $r=-.05$ to $r=.44$, therefore spanning zero. No significant difference was identified between those who participated in visual arts programmes compared to those who did not on verbal/conceptual creative thinking ($r=.003$). So, although correlation studies suggest that there may be some transference from art experiences to creative thinking, little support is found for this premise when a more strict experimental design was used, and the direction of such a transference, should it exist, are also unclear. A further limitation of this area of research is that measures of creative thinking have been limited to pencil and paper tests. The authors suggest that more qualitative measures of creative thinking, such as open-ended problem solving, may reveal different findings.

Arts educators have argued also that teaching the arts has a significant effect on overall success in school. Art educators such as Ruskin, Cooke and others (see Carline, 1968) stressed the educational value of learning to draw, advocating that drawing makes the acquisition of all knowledge simpler and easier. While there have

been some instances of support for this claim (Catterall, 1998; Heath, 1998), a meta-analytic review carried out by Hetland and Winner (2004) found no supporting evidence. A more specific claim has been made for significant correlations between mean Standard Attainment Test (SAT) scores and involvement in the arts. Generally, it was found that the longer a pupil had engaged in the arts the higher their SAT scores (Vaughn & Winner, 2000). However, there are many potential alternative explanations of such findings. For instance, students who chose to participate in arts courses¹ might be high achievers to begin with, they may come from families who value both academic achievement and the arts. In addition, schools that are strong in the arts might also be strong across academic subjects. Furthermore, links between length of engagement in arts courses and mean SAT scores is far weaker than the link between length of engagement in academic courses and mean SAT scores (Vaughn & Winner, 2000). Consequently longer engagement in the arts cannot be directly related to higher academic achievement.

More recent developments in this area have reflected a belief that integrating drawing into subject lessons may improve learning. For instance, Ainsworth, Prain, & Tytler (2011) argue that emerging research suggests that drawing can play an important role in science education; improving pupil engagement, communication skills and their ability to understand and reason about the subject matter that they are learning. These views are supported by research in the area such as Ainsworth and Loizou (2003) who gave learners either a short piece of text or a diagram about the cardio-vascular system. Results showed that students given diagrams performed significantly better on a multiple choice test, a diagram completion exercise and also implicit and knowledge inference questions. Furthermore, the students who had been given the diagrams also appeared to learn more quickly and generated significantly

¹ The definition of arts was broad and included music, drama, dance as well as the visual arts.

more self-explanations than text students who tended to rely more on paraphrasing and spent longer studying the materials. More recently emerging research in this area suggests that creating a drawing can be even more beneficial to learning. For example, initial evaluations of the *The Role of Representation in Learning Science* (Hubber, Tytler, & Haslam, 2010) report observational data concluding that students who drew in their lessons engaged more in class, discussed at a higher level, and performed better in their work- books. However, further evaluation of such programmes are required, ideally using pre- and post- test designs and including a control group to truly evaluate the influence that creating drawings may have on pupils' learning and understanding.

There have also been some recent attempts to link drawing with benefits to cognitive development. For instance, Kozblet and Seeley (2007) have attempted to draw on explanations and evidence from psychology and neuroscience to evaluate the frequently made anecdotal comments that artists have superior visual perception and 'perceive the world differently than nonartists' (p.80). They discuss the small body of research building up which suggests that the ability to draw accurately is related to the ability to visually see objects more accurately (based on evidence from eye tracking and fMRI studies) and for these sensations to be less distorted by pre-existing schemata about how things should look. However, the majority of research that Kozblet and Seeley drew on to make these conclusions was correlation research. Consequently, it cannot be concluded from the evidence presented that drawing and artistic experience cause the superior visual perception, it could be that individuals with superior visual perception are more like to become artists or that something else entirely which attributes to both these abilities.

Carrying out research with young children has the potential to examine further any causal link between drawing and superior cognitive ability. Recent research with 4

year old children (Lilliard & Peterson, 2011) found that after spending 9 minutes drawing children performed significantly better on the Tower of Hanoi task and also a backwards digit span test compared to children who had spent 9 minutes watching either a fast paced television cartoon or an educational television programme. However, the main focus of this study was not on benefits of drawing, instead it was about negative effect of television watching. Consequently there was no control group so it is not possible to say whether drawing improved performance of the tasks designed to assess executive functioning, or whether watching television decreased performance on these tasks.

Focusing on the benefit of the arts through achievement in other academic areas, or benefits to cognitive ability, is in itself a somewhat limited approach as surely we should be advocating the importance of art for art's sake, to enable children to express themselves and to appreciate the art of others. We should not have to justify the teaching of the arts, or our interest in the arts, by measuring the outcome of art through achievement in other academic disciplines (Winner & Hetland, 2008). Harland et al. (2000) investigated the artistic benefits of engaging in art through case studies of five secondary schools and collecting questionnaire data from 2269 Year 11 National Curriculum pupils. Findings from the case studies indicated that art education was effective in pupils:

1. Achieving a heightened sense of enjoyment, excitement and therapeutic release of tensions
2. Increasing the knowledge and skills associated with particular art forms
3. Enhancing knowledge of social and cultural issues
4. Developing creativity and thinking skills
5. Enriching communication and expressive skills
6. Advances in personal and social development

It is clear that many of these themes reflect the anecdotal evidence and assumptions at the beginning of this section. This indicates, at the very least, some agreement between theorists, art educators and the students themselves about the benefits of art.

While Harland et al. (2000) concentrated on secondary schools teaching the National Curriculum, Watts (2005) focused on National Curriculum primary schools. Watts asked 316 children aged 6 to 7 years about their views on the importance of art. The children's responses were dominated by themes of personal development (25%), communication (23%) and aesthetics (21%), whereas only a few suggested reasons related to money (7%) or enjoyment (6%). However, Watts also asked the children why they thought that they, children, made art and why adults made art. The majority of pupils (57%) suggested that they made art because it was fun whereas adults made art because it made them money (23%), was fun (19%) or for personal development (17%). It seems that children's beliefs concerning why art is important were not fully reflected in their views as to why either adults or children engaged in art activities.

As can be seen from the above, the benefits of art in general, rather than drawing specifically, tend to have been the focus of past research. Studies focusing just on the benefits of drawing are not so common. However, a recent study which does focus specifically on drawing is by Burkitt and colleagues who carried out a large scale survey investigating the attitudes and practices of teachers', parents' and children towards drawing in National Curriculum Schools. Two hundred and seventy children and 44 of their teachers were interviewed and 146 self-completed questionnaires were returned by their parents (Burkitt, Jolley & Rose, 2010). The survey covered a wide range of topics associated with children's drawing, including questions pertaining to the importance and benefits of drawing. Questions were either open ended or required response on likert type scales. Teachers and parents were asked to respond on a ten-

point scale indicating to what extent they rated the importance of children's art education within the context of children's whole education (ten being 'extremely important'). Teachers thought it to be very important (mean 8.28), with similar ratings given by both primary and secondary teachers, while parents reported that it was fairly important (mean 6.84). The most frequently cited benefits of drawing reported by the teachers were expression and communication (50%), cognitive and motor skills (41%) and children's pride and satisfaction in the finished drawing (30%). The responses from the parents showed a similar pattern, except that they talked more frequently about children's enjoyment of drawing and the relaxation it offered (parents = 33% and teachers 20%). Many children, especially the younger ones, were unsure how to answer the question concerning the benefits of drawing (19%), or gave answers which it was not possible to categorise (12%). The most frequent benefits the children talked about were expression (12%), calming & relaxing (11%) and improving their drawing skill (11%). This gives the impression that parents and teachers primarily value drawing in terms of the benefits that it brings to other domains, including cognitive, emotional and personal development, whereas children recognise drawing for these benefits but also acknowledge more readily that drawing is important in its own right, i.e. to develop drawing skills.

It is clear that there are many benefits that children are considered to gain from engaging in art and drawing. However, there is undoubtedly a need for further empirical evidence to support the claims for wide ranging benefits. The suggestion of educational benefits of engaging in drawing and art leads to consideration of how best to promote these benefits through art education. As well as nurturing the artistic process benefits, it is clear that this needs to be done in a manner that also equips children in representational and expressive drawing skills. Historically, there have

been a number of approaches to the teaching of drawing skills in schools, and these will now be briefly discussed.

1.3 History of School Drawing Education

Drawing is one of the most basic forms of art as most works of art will either include the representation of an image on the paper or canvas, or will work from sketches of the artwork. From the late 18th century and throughout the 19th century the industrial revolution required design skills to support the developing manufacturing activity. Consequently, the value and importance of training children in drawing skills became widely recognised. Early drawing education focused on breaking down the elements of subject matter into lines and only when the child had learnt this skill did they start to represent subject matter from life (Ashwin, 1981). Examples of this are the courses developed by Walter Smith, an Englishman, who not only developed the first drawing curricula introduced in America in 1870 but also trained teachers in how to deliver it. Smith's courses consisted of a prescribed series of exercises, starting with drawing a straight line without a ruler, and reflecting the belief that drawing should be mastered through imitation, drill and practice (Chapman, 1978). Another early art educator who had a considerable impact on other European theorists was Henry Pestalozzi. His approach was very similar to Smith's, with children initially completing repetitious geometric exercises of gradually increasing complexity (Aswin, 1981). Although the materials from Smith's and Pestalozzi's programme seem very restrictive in comparison to more modern, westernised art education programmes their legacy lives on in step-by-step books and cultures where explicit drawing instruction is given.

Ruskin (1857), on the other hand, argued that the real purpose of drawing was to appreciate nature. Accordingly, he promoted the value of observational drawing from nature. Ruskin's approach to drawing as a problem solving exercise, requiring

the children to invent their own graphical forms to represent 3-dimensional scenes on a 2-dimensional page, is still common among western art educators (Jolley, 2010). A different approach is to give children more freedom in their drawing. For instance, Lowenfeld (1939) argued that children should be encouraged in their art work to produce pictures of imagination, creativity and expression. Drawing and painting from imagination, as encouraged by Cizek, a reformer of art education and the founder of the Child Art Movement, and followers such as Lowenfeld, contrasted the early focus on drawing from sight, or observational drawing (Carline, 1968). Cizek argued that observational drawing should only be attempted once ‘the creative faculty has vanished’ (Carline, 1968, p162). Cizek was primarily interested in the work of the younger child – up to seven years old. He held the view that young children draw prolifically not because they want to communicate something but because they can formulate and explore their own ideas. It has been reported that he never drew for his pupils, nor worked on their pictures. Cizek argued that children should not be taught art, instead they should simply have the opportunity to teach themselves and the teacher ‘ought to learn to hover like an invisible spirit over his pupils, always ready to encourage but never to force or to push.’ (Carline, 1968, p.160). However, if we read accounts of observations of Cizek’s classes examples can quickly be found of pupils being given very precise and explicit directions. For instance ‘the figure must exactly fill the whole sheet. You must sketch it out very lightly...before spending time on detail’ (Carline, 1968, p. 160). This demonstrates that conclusions about what happens in drawing classrooms cannot be based solely on the educational theory being advocated, instead it is important to speak to teachers and pupils about their experiences of their classrooms.

While Cizek and Lowenfeld directly influenced art education in Middle Europe and America, it was Marion Richardson who, during the early 20th century,

exemplified their approach in England through encouraging children to work their imagination (see Richardson, 1948). She would vividly describe an event to children, asking them to engage their mind and imagination into the details and imagery of the details. The children would then record their visualisations in their drawings. The shift towards freedom and expression and away from the earlier, very structured approaches, was justified on the grounds that it allowed children's natural talent and imagination to develop. Some experts in children's drawings actually argue that tasks such as copying (Arnheim, 1989) may actually damage a child's artistic and creative development, and some go as far as saying that children should be left untutored and unhindered by adult forms of representation (Kellogg & O'Dell, 1967).

More contemporary art educators' and theorists, such as Matthews (2003) and Kindler (1995), advocate the importance of adult involvement and support in developing drawing skills of young children. Mathews collected evidence demonstrating that drawing episodes are composed of rapidly alternating bursts of action, and that like speech, are related to the breathing patterns of young children. Initially it is necessary for an adult to interact with the child to facilitate this 'conversation', the child will then develop and be able to maintain the 'conversation' on their own. Further evidence for the importance of adult involvement in the drawing experiences of young children comes from Kindler (1997) who observed, in a day-care centre for the under threes, that although art materials were plentiful, children rarely experimented with them unless an adult was present and became involved in what they were doing.

More recent developments in school drawing education have focused on children gaining a more balanced art education, rather than one which focuses almost exclusively on the product (Gardner, 1990). Drawing curricula such as Discipline Based Arts Education, had advocated the importance of teaching children about art

history, criticism and aesthetics alongside production skills (The J. Paul Getty Trust, 1992) and this integrated approach is also echoed in the National Curriculum for Art and Design.

1.4 Art in English National Curriculum Schools

The National Curriculum for Art was included in the Education Reform Act of 1988 by the British government as a foundation subject, and the National Curriculum (Department for Education and Employment, 1999; Qualifications and Curriculum Authority, 2007) sets out a programme of study for teachers to follow in England. This is the statutory curriculum taught in all English schools receiving Local Authority Funding. The only schools in England not teaching the National Curriculum are independent schools choosing to follow an alternative curriculum and academy schools funded directly by Central Government. The overall aim of the National Curriculum is to make certain that every child develops essential numeracy and literacy skills, and that a full and rounded experience of learning and creativity is fostered (Department for Education and Employment, 1999).

The National Curriculum² for all subjects is broken down into Key Stages; these are defined by the age of the pupils. Children only move up from one Key Stage to the next at the beginning of the relevant school year determined by their age (Key Stage 1 - 5 to 7 years, Key Stage 2 – 7 to 11 years and Key Stage 3 - 11 to 14 years). Children who attend nursery will begin receiving art education prior to beginning school, according the Early Years Foundation Stage, this curriculum emphasizes the development of the child's imagination and creativity (Department for Children, School and Families, 2008). Once children reach statutory school age The Programme of Study for Art and Design (Department for Education and Employment, 1999)

² It is the National Curriculum for England that is being referred to throughout this theses. Through devolution Wales, Scotland and Northern Ireland have their own curricula.

outlines what pupils, between the ages of 5 and 14 years, should be taught during the recommended one hour a week art lesson. In respect of drawing, the National Curriculum for Art and Design appears to attempt to strike a balance between drawing from observation and encouraging children's expression and creativity. For instance at Key Stage 1 the curriculum states, "pupils should be taught to ... represent observations, ideas and feelings" (Department for Education and Employment, 1999, p.16), and similar, more developed, statements are given for Key Stages 2 and 3 . Consequently, the curriculum focuses on both the development of realistic and expressive drawing abilities.

Exemplar schemes of work have been published by the DfEE/QCA to help teachers see how the programmes of study can be related into practical, manageable teaching plans. Twenty two schemes of work (plus two additional ones designed for taking trips out to galleries or museums) have been developed; they are divided up into three Key stages. Looking through these it is notable that although tasks requiring both expressive and representational skills are included, there is a bias towards representational work, more than half of the schemes of work focus on representation, whereas only about a quarter focus on more expressive aspects of art making (the remainder are more craft based types of projects). Furthermore, the disparity between expressive and representational tasks is even greater among the schemes of work designed for the very youngest children (5- to 7-year-olds), where the schemes of work focus exclusively on observational techniques and craft base activities. Of course teachers may develop their own schemes of work involving expressive drawing skills. However, based on previous research concerning the attitudes and practices of teachers (Burkitt et al., 2010), this bias is certainly representative of what happens during Key Stages 1 and 2.

The National Curriculum for Art and Design does not define precisely what is

to be covered. This is so that individual schools can develop a curriculum which meets the needs and interests of their pupils. Consequently, there is an assumption that teachers know what skills and knowledge need to be taught and how best to teach and assess them (Atkinson, 2006). This might be fine in secondary schools where it is most common for art teachers to have a first degree in the arts and subsequent teacher training. However, primary teachers may have very little art training and many express concerns that they lack drawing skills and confidence to teach art (Burkitt, et al., 2010, Clement, 1994). According to Ofsted (2009) many primary school teachers resorted to the published schemes of work and their lack of subject specific knowledge hinders them in designing a curriculum that enables pupils to build a progression of knowledge, skills and understanding. This large scale review of the delivery of the art and design curriculum published by Ofsted (2009) concluded that art and design teaching was good or outstanding in just 36 of the 90 primary schools visited. The teachers own artistic competence, whether acquired through their own education, formal training or simply from an appreciation of art, was an important contributor to success. In the most effective lessons, teachers used their own sketchbooks or collections for discussion and exemplification, or provided confident demonstrations that enabled the pupils to see the artist within the teacher. Less successful teachers, on the other hand, did little to win the confidence of their pupils, admitting ‘I can’t draw’ or showing a lack of inquisitiveness of the work of artists or of talented pupils. Many of the primary school teachers surveyed lacked confidence in drawing. This detracted from their effectiveness as teachers and from their pupils’ achievements (Ofsted, 2009). This raises concern about the limited professional development opportunities provided to help primary teachers overcome their fear of drawing. Secondary school art teachers were much more confident, and this was portrayed through more effective teaching and pupils making more consistent progress compared to pupils at primary

school (Ofsted, 2009). Secondary school teachers identified as being particularly effective in their teaching and delivery of the curriculum encouraged their pupils to be confident and “draw adventurously” (Ofsted, 2009, p.3). Classrooms were set up more like art studios, craft and ICT were integrated, large scale projects were encouraged and links with contemporary and practicing artists and crafts people were developed.

1.5 Art in Steiner Waldorf Schools

An alternative approach to teaching art is practiced in some independent schools in England (and worldwide) which choose to follow the principles of Rudolf Steiner. The first Steiner school was established in 1919 based on the beliefs and practices of Rudolf Steiner (1861-1925). This school was founded for the children of employees of the Waldorf Astoria Cigarette Company in Stuttgart; this is why in some countries Steiner schools are known as Waldorf schools. Steiner and Waldorf school initiatives have grown around the world and by December 2013 there were 1025 Steiner/Waldorf schools found in 60 countries, 34 of them in the United Kingdom (Bund der Freien Waldorfschulen, 2013). The spread of Steiner Waldorf schools suggests that they provide something that other forms of schooling do not (Uhrmacher, 1995). Steiner education is based on an understanding of child development that has its roots in a philosophy known as ‘anthroposophy’. The approach has strong links to humanistic psychology, being child-based and encouraging teaching which is ‘warmed through with feeling’ (Meighand, 1995, p. 48). The social life of the class and the relationship between the pupil and the teacher is emphasised throughout. Based on these principles the curriculum aims to educate the whole child, physically, emotionally and spiritually as well as intellectually (Nicolson, 2000). Although, Steiner education is state funded in most European countries the majority of Steiner schools in England are fee paying independent schools. However, these schools aim to be all inclusive and usually no child is turned away on the basis of an inability to pay,

instead parents may be asked to make practical contributions (Woods, O'Neill & Woods, 1997). Consequently, Steiner schools are not limited to serving middle class and wealthier groups of the population.

In Steiner education the visual arts are considered essential to the development of the child, and are a fundamental aspect of the curriculum thought to develop pupils' attitudes, feelings and understanding for all subjects (Nicholson, 2000; Woods, Ashley & Woods, 2005). Up until the age of 7 years, children attend Kindergarten where the emphasis is on learning through physical activity, imitation and play (Easton, 1997). Rudolf Steiner gave no particular exercises in drawing for the Kindergarten, instead he wanted the children's artistic experience to be based on imitation (Jünemann & Weitmann, 1977). Drawing materials are usually available for children to use when they wish, and generally once a week there will be a dedicated drawing time where the teacher sits and draws, providing a role model for the child to imitate. The materials used are a mixture of wax block and stick-shaped crayons. The paper provided is white, relatively thick and slightly textured. Children are given little direction on what to draw but they are encouraged to fill the page with colour (Glas, 2010). In these drawing sessions it is the activity rather than the result that is important (Schweizer, 2010).

Between the age of 6 and 7 years pupils enter Class One; this is where formal teaching begins. However, classrooms are full of natural objects designed to stimulate the child's imagination and desire to learn. Fantasy is encouraged and children are told fairy tales and fables to feed their imagination (Carlgren, 2008). The children are taught most subjects by the same class teacher; this teacher will stay with the children until they reach Class Eight. The younger children are taught "Form Drawing". This is the freehand drawing of geometrical shapes. This starts with simply drawing straight and curved lines, and by age 10 the pupils will be producing intricately woven Celtic

knots, braids, and stars. During this time pupils are also receiving lessons dedicated to painting. In these lessons pupils engage in water colour painting, the main focus is for them to experiment with and experience colour (Jünemann & Weitmann, 1977). In addition to the form drawing and painting lessons, children spend much time drawing their own illustrations to stories that teachers narrate to them and in decorating their workbooks (Nicholson, 2000). Furthermore, drawing is used to increase the pupils' knowledge and understanding of more academic subjects, from learning to write to aspects of biology and history. For instance, when children are learning to write the letters of the alphabet, at age seven, drawing is used. The teacher will draw a colourful drawing on the chalkboard including a tree drawn in the shape of the letter T and the children will be encouraged to produce their own drawing including a similar tree (Carlgren, 2008; Stockmeyer, 1991). Children have much freedom in choosing the subject matter and the style of their drawings. Some drawings may represent specific scenes from the stories told, others may be more abstract in nature. In this way children have the opportunity to experiment with both expressive and representational drawing skills. The classrooms are decorated with a wide range of artwork, created by the pupils themselves, their teacher and artists.

There is little formal teaching of drawing skills and techniques until the pupils reach 12 years of age. This reflects Steiner's belief that the purpose is not to necessarily to achieve a product of high artistic merit, but instead to find a path to knowledge and understanding (Nobel, 1991). Representative drawing is introduced through developing pupils' awareness of light and shadow. Pupils are asked to draw simple geometric forms (e.g., cubes and spheres) from large models which are placed in front of the class. They are equipped with a soft lead pencil or a piece of charcoal. The teacher demonstrates on the blackboard how to consider the effect of lighting and the shadow created by the shape itself. Pupils practice these simple shapes until they

feel satisfied with their productions (Jünemann & Weitmann, 1977). Perspective is the next skill which is introduced. Pupils are encouraged to make their observations in movement, by walking towards an object and away from it, by looking up at a tall building, and down from a height. These experiences, coupled with their learning in geometry lessons, bring about increased understanding and ability to depict perspective.

At age 14 years, lessons on the history of art and aesthetics are introduced (Jünemann & Weitmann, 1977). This begins with the historic study of fine arts but in subsequent years will be extended to poetry, music and architecture. This involves copying the works of some of the great artists in a very detailed and accurate manner. In drawing lessons pupils gain experience with a range of materials, including, charcoal, Indian ink, pencils and pastels. Pupils' understanding of light and shadow is further developed through teacher demonstrations of the effect of different strokes used in shading. For example, pupils are shown that the application of strokes that follow the form strengthen the form and make it appear heavy. Whereas if the strokes go against the form this gives the appearance of a floating form (Jünemann & Weitmann, 1977).

Art education and the nurturing of drawing skills continue in Steiner schools up until the point that a pupil leaves school. This reflects Rudolf Steiner's view that the arts are central to learning experiences and that it is through the creation of artistic works that the individuals become more aware of sensations, feelings and thoughts (Easton, 1997). Consequently, throughout the whole curriculum the visual arts are considered essential to the development of the pupils' attitudes, feelings and understanding for all subjects (Jünemann & Weitmann, 1977; Nicholson, 2000; Woods, et al., 2005).

Within the Steiner pedagogy it is expected that teachers must develop their

own creativity in order to nurture the children's creative development. From a large scale British survey Woods et al. (2005) found that 95% of teachers in Steiner schools perceived the artistry of the teacher to be a distinguishing characteristic of the pedagogy. However, the emphasis is on experimentation rather than artistic skills (Carlgren, 2008). Teacher training programmes include modules covering the teaching of the arts as well as more practical modules, where teachers are expected to create their own creative pieces³.

1.6 Aims of the Thesis

While there has been considerable research investigating what strategies are effective for teaching reading, writing and numeracy (e.g. Slavin, et al. 2013; Torgerson, Brooks & Hall, 2006), very little attention has been given to the effective teaching of the arts. Although the majority of teachers recognise the potential benefits of drawing (e.g. Barry & Townsend, 1995; Downing, 2003; Harland et al., 2000; Rose, Jolley & Burkitt, 2006), there is much uncertainty about how best to teach children to develop their drawing skills, creativity and appreciation of art (e.g. Anning, 2002; Burkitt, Jolley & Rose, 2010; Clement, 1994; Jolley, Fenn & Jones, 2004; Ofsted, 2009). The history of drawing education (e.g. Efland, 1990) and the study of cultural differences in art education (Winner, 1989) identify different approaches to school based drawing instruction. However, there is minimal empirical evidence of the influence that these different approaches, as distinct from culture, may have on the drawings produced by children. This thesis aims to establish how two different

³ This observation was based on examination of the Module descriptors available for the Plymouth University BA in Steiner Education in 2009. This was the only University accredited Steiner Waldorf courses available in the UK, however this course was withdrawn in 2009 and no similar course is currently offered by any university. In order for new Steiner teachers to become trained they have to take part in private courses. Consulting the websites (<http://www.waldorfrtraining.org.uk/>; <http://www.westt.org.uk/>; <http://www.yorksteinerschool.org/wp-content/uploads/2012/05/NESTT-2012.pdf>) of these courses confirms the similarity of their content to that of the Plymouth course in terms of artistic training and support for training teachers.

approaches to teaching drawing in England influence the drawings that children create and also their attitudes and practices to drawing.

The two approaches to teaching drawing which will be the focus of this thesis are the National Curriculum for Art and Design and the curriculum and philosophies of Rudolf Steiner. These have been selected as their curricula advocate different approaches to how drawing development should be supported in schools (see this Chapter, Sections 1.5 & 1.4). Furthermore, one represents the standard art teaching that the majority of children in England receive and the other reflects a curriculum which is open to all (Uhrmacher, 1995; Woods, Neil & Woods, 1997), consistently delivered (Woods, Ashley & Woods, 2005) and in which the arts are highly valued. One particular contrast between these two curricula occurs at age 14 when those children who are attending National Curriculum schools have to choose which subjects they will study for the final two years of compulsory education. Consequently, some National Curriculum pupils will choose to continue to study art and to take an Art GCSE (General Certificate of Education). However, others who opt not to take an art GCSE will no longer take part in art lessons and therefore will have fewer opportunities to practice and develop their drawing skills. In contrast in Steiner schools all pupils continue to study the arts, which are still highly valued throughout the curriculum (Carlgren, 2008). There has been no research into the extent to which making a choice to study art or not might be reflected in pupils drawing abilities, attitudes or practices.

As well as considering the influence that the two approaches to teaching drawing, and the effect of choosing not to study the arts at age 14, have on drawing ability and style this thesis will also consider the wider context in which drawing occurs. The drawing attitudes and practices of the three key parties, teachers, parents and the children themselves will be investigated. This is imperative as studying the

drawing curricula provides only partial insight into school drawing experiences (as the exact content and delivery is determined by the teacher) and almost no insight into home drawing experiences.

To summarise the aims of this thesis are:

1. To investigate drawing ability and drawing style among National Curriculum and Steiner Pupils.
2. To investigate the children's, teachers' and parents' attitudes and practices relevant to National Curriculum and Steiner pupils' drawing experiences.

1.7 Summary

Psychologists have been interested in the children's drawings for over 150 years, and the benefits of engaging in the arts, including drawing are noted by many. During this time approaches to teaching drawing in school has altered considerably, with different curricula and art values emerging from theoretical debate about how best to foster children's artists, and in particular drawing abilities. This debate continues and within England two seemingly distinct curricula can be found being taught in National Curriculum and Steiner/Waldorf schools. While the National Curriculum aims to encourage the development of both expressive and representational drawing skill among pupils of all ages the Steiner Curriculum gives the children much freedom in what they chose to draw and how they chose to draw it, with creativity being emphasised and representational drawing skills only being formally taught once the pupils are approximately 12-years-old. This thesis has two main aims. Firstly to investigate the drawing abilities and styles of pupils attending these two school types and secondly to consider the children's, teachers' and parents' attitudes and practices relevant to pupils' drawing experiences both at home and at school.

CHAPTER 2: LITERATURE REVIEW

The first part of this Chapter focuses on the development of representational and expressive drawing abilities and to what extent these might be influenced by the education that a child experiences. The second part of this Chapter focuses on children's attitudes to drawing and drawing practices and how these may be shaped by their experiences at school and at home. Relevant research evidence is reviewed and research questions for further consideration identified.

2.1 Development of Drawing Ability

Since scientific interest in children's drawings began in the late 19th century much research attention has involved the collection of the drawings that children produce with the goal of mapping out the development of children's drawing ability (e.g. Carothers & Gardner, 1979; Clark, 1993; Cox, 1992; Davis, 1997a, 1997b; Jolley, Fenn & Jones, 2004; Kellog, 1969; Luquet, 1927/2001; Willats, 1997, 2005; Yamagata, 1997). The main body of literature in this area has evaluated children's drawing ability from a graphic skill/aesthetic standpoint. Initially there was considerable emphasis on representational drawing ability. This refers to the ability to depict subject matter from our three-dimensional world that is an accurate and life like reflection of the real-world referent. Such a drawing may be produced from direct observation of the subject matter or from a mental representation stored in memory. The extent to which a drawing is perceived as visually realistic depends upon accurate observation, visual spatial memory and technical drawing skills; including the use of detail, spatial alignment, proportion, colour, depth, partial occlusion and perspective (see Cox, 2005; Golomb, 2004; Jolley, 2010).

More recently attention has turned to expressive drawing skill, which refers to the ability of the artist to communicate moods, feelings and ideas through drawing. This is achieved using three broad types of expressive techniques: literal, content and

abstract (Ives, 1984; Jolley, 2010; Jolley, et al., 2004; Morra, Caloni & d'Amico, 1994; Picard, Brechet & Baldy, 2007). Literal expression refers to the expression of meaning through a symbol presented and intended to be interpreted in its usually understood form. For example, the shape of the mouth is often used as a literal expression of a happy or sad mood. In comparison content and abstract expressions are both forms of metaphorical expression (Jolley, 2010; Picard & Gauthier, 2012). Content expression refers to the choice of subject matter from life being used to portray a particular emotion through an implicit comparison being made. For example, a countryside scene on a sunny day to express a happy mood, or a damaged and unhealthy looking tree to depict a sad mood. Abstract expression refers to the expressive use of formal properties such as color, line and composition. For instance, lines may be curved upwards, downwards, jagged, thin and wispy or thick and heavy. Colours can be warm, bright, dark, pale, strong. Composition refers to the size and spatial arrangement of the various elements of the drawing on the page. These formal properties may form part of a depiction of the subject matter or may be completely abstract in nature. These three expressive techniques are of course not mutually exclusive as they can appear in the same picture or even in a single item within a picture. Furthermore both literal and content expression involve the depiction of representational forms, however in content expression these are intended to be interpreted metaphorically rather than as a direct representation of an emotion.

The many skills that are involved in representational and expressive drawings make drawing a challenging task and there have been many attempts to map out the developmental progression of children's drawing abilities. Research into the development of representational drawing ability produces fairly consistent evidence that representational drawing ability improves during childhood with age (for reviews see Cox, 2005; Jolley, 2010 and also Chapter 1 of this theses). However, there is

considerably less literature that has investigated the developmental pattern of expressive drawing and the findings are less consistent. In particular, there is a debate about whether children show improvement of skill within an age-incremental developmental pattern (Carothers & Gardner, 1979; Jolley, et al., 2004; Ives, 1984; Winston, Kenyon, Stewardson & Lepine, 1995). Alternatively, it is argued that the developmental pattern is U shaped (Davis, 1997a, 1997b; Gardner & Winner, 1982), with the perceived quality of young children and adult artist's aesthetic drawings being equal. Support for this U shaped curve has come from Harvard's project Zero team (e.g. Gardner & Winner, 1982) with empirical evidence presented by Davis (1997a). These findings appeared to indicate that children's expressive drawing ability deteriorated during primary school and only improved again in self-professed artists during high school. This led Davis (1997b) to make the worrying conclusion that many North American children were leaving school with less ability to draw expressively than when they started school. However, subsequent empirical investigations of expressive drawing ability have failed to replicate these findings. Instead evidence for an age related progression in children's expressive drawing ability, with a slow period of development during middle childhood, has been found (Jolley, et al., 2004; Pariser, Kindler, van den Berg, Dias & Liu, 2007; Picard & Gauthier, 2012). Furthermore, the research on children's expressive drawing prior to Davis's study also appeared unresponsive of the U-shape curve position, the data instead being more consistent with an age-incremental trend (Carothers & Gardner, 1979; Ives, 1984; Winston, et al., 1995). Consequently it would seem that both representational and expressive drawing ability appear to develop with age. What is less clear is how these drawing abilities may be influenced by environmental factors.

There has been a growing body of literature which considers cross cultural differences in both representational (e.g. Cox, 1993; Cox, Koyasu, Hiranuma &

Perara 2001; Cox, Perara & Xu 1998, 1999; La Voy, et al., 2001; Paget, 1932) and expressive (Burkitt, Tala & Lowe, 2007; Kindler, 2000; Haanstra, Danien, & Hoorn, 2011) drawing skills. These cross cultural studies have identified some differences in drawing development between different countries. However, it is unclear to what extent differences observed are the result of environmental, social or educational factors. There has been a limited amount of research which has considered the drawing abilities of children from the same broad culture but who experience different approaches to art education. This research considers the drawing ability of pupils receiving standard state education compared to that based on the philosophies of Rudolf Steiner.

2.2 Drawing Ability of Steiner Waldorf and National Curriculum Pupils

The National Curriculum for Art and Design attempts to strike a balance between drawing from observation and encouraging children's expression and creativity (Department of Education, 1995). In Steiner schools, creativity and expression are emphasised throughout the curriculum, and much time is devoted to drawing patterns and scenes from imagination. However, drawing from observation is not encouraged before pupils are about 12 years old (Stockmeyer, 1991). Despite clear differences in the curricula, potential drawing differences between children taught the National Curriculum and those taught the Steiner education have only recently been investigated.

The largest scale study in this area involved the comparison of 1,165 Steiner and State school children aged 8 to 11 years from England, Scotland and Germany matched on socio-economic status (Ogletree, 2000). However, this study focused on creativity rather than specifically on drawing ability. The Torrance Test of Creative Thinking (Torrance, 1966) was administered; this includes verbal and figural tasks of divergent

thinking as well as problem solving. Among the tasks administered three specifically involved drawing, and these are the tasks which are of particular relevance to the current discussion. One drawing task involved picture construction: children were instructed to draw the most creative and interesting picture they could using a banana-shaped paste-on as an integral part of their drawing. The other two drawing tasks were picture completion tasks, one involved children being presented with incomplete figures to complete to a finished drawing, and in the other task children were provided with a series of circles and asked to add further marks to create pictures. The findings were not broken down to the level of the separate tasks, or even the drawing tasks compared to the other creative tasks, and details of scoring were not included. However, it was concluded that Steiner pupils, across all cultures, obtained higher creativity scores than their state school peers.

Furthermore, in relation to the drawing tasks, Ogletree anecdotally commented that the Steiner pupils were 'more mature in terms of skill and technique' (unpaged) with form and line being developed by shading and colour blending, whereas the National Curriculum pupils tended to first draw an outline and then color it in. Ogletree's findings of superior creativity among Steiner school pupils suggests that the Steiner curriculum is more successful at nurturing the development of creativity. This superior creative development could be particularly relevant for the development of expressive drawing ability as the skills needed for metaphorical expression are akin to the major tenants of creativity discussed by Mindham (2005). For instance, the ability to see things in a new way; going beyond the facts of the information provided; using non-traditional approaches to problem solving; and showing originality are all skills involved in expressing meaning using metaphorical content and formal properties.

A study focusing more closely on drawing development - rather than general creativity - in English National Curriculum, Steiner and Montessori schools was carried out by Cox and Rowlands (2000). Twenty children from each school type, aged between

5 and 7 years, completed three drawing tasks (a prescribed scene drawing, an observational picture of an artist's wooden model of a man running and a free drawing). Children were not separated into different age groups, and only between school differences were considered. Two independent judges rated the free and scene drawings on a scale of 1-5 (1 = 'a very poor drawing', 5 = 'an excellent drawing'). No firm criteria were given for the points on the scale. Interrater reliability was reported to be good, with the two raters agreeing on the exact rating for over 75% of the drawings. For the remaining drawings raters were within one point of each other. For the drawing of the model running a more detailed 12-point scale was used from Cox's earlier work (Cox, Perara & Xu, 1998). This scale was designed to assess how representational the drawing of the model was. Points were awarded depending on the presence or absence of certain aspects within the drawing (overlap, partial occlusion, proportion, detail and direction of body parts). Again agreement between the two independent raters was reported to be 'good' with exact agreement on 75%, one point apart on 20% and within two points on the remaining 5% of drawing. Results indicated that Steiner pupils' scene, free and representational drawings were rated significantly more highly compared to Montessori and National Curriculum pupils' drawings. Cox and Rowlands conclude that their findings suggest that the Steiner Curriculum is more conducive to the development of aesthetic and representational drawing skill, adding further support to Ogeltree's (2000) conclusions.

Cox and Rowlands (2000) also investigated colour use in the scene and free drawings. Raters counted the number of colours used in each drawing and also rated on a 5-point-scale the 'use of colour' (1 = 'very poor use of colour' ... 5 = 'excellent use of colour'). In the free drawings Steiner and Montessori pupils used more colours, while in the scene drawing Steiner and National Curriculum pupils used a greater number. For colour use Steiner pupils' free and scene drawings received significantly higher ratings

compared to drawings from National Curriculum and Montessori school pupils.

Consequently, Cox and Rowlands conclude that Steiner pupils have more advanced drawing skills and also that they tend to use a wider number of colours and show 'better' colour use in their drawings.

Although Cox and Rowlands' (2000) research provided insight into some differences in drawing ability among a small age range of pupils attending National Curriculum, Steiner and Montessori schools, it is unclear exactly what aspects of the drawings raters were basing their decisions on as they were simply asked to rate the drawings 'for how good they thought they were' (p.491). Similarly, in Ogeltree's (2000) conclusions the specific nature of between school differences in drawing ability are unclear as the results for the three drawing tasks were not presented separately.

Furthermore, neither study considered age related differences and only a limited range of children's drawing abilities were examined. Drawing skill is much more than depicting objects either from still-life observations or memory. While Cox and Rowlands did comment on the use of colour in the three school systems they studied, it is unclear whether the raters were basing their decisions on representative or expressive colour use. Furthermore, as stated above, colour is not the only vehicle for expression in pictures. Different uses of line and composition, as well as the depiction of various subject matter themes, are all communicators that can express imagination and creativity (Davis, 1997a; Goodman, 1976; Jolley, et al., 2004; Kennedy 1982). Investigating both age differences and a wider range of drawing abilities is particularly important considering the differences in the developmental aspects of the two curricula, and their respective biases to representational and expressive drawing.

These issues formed the rationale for a more recent study focusing on a wider range of drawing skills and a wider age-range of children from English National Curriculum, Steiner and Montessori schools (Rose, Jolley & Charman, 2012). This study involved a

total of 130 participants; consisting of 45 participants from each school type with 15 from each of three age groups, 5-, 7- and 9-year-olds. Participants completed three expressive drawings (depicting a happy, sad and angry mood) and three representational drawings (observational drawing of a wooden mannequin, a house from memory, and a free, but realistic drawing). The expressive drawings were rated by two independent artists for the appropriate use of expressive subject matter (e.g., a sunny day for a happy drawing). Furthermore, three independent raters (including the two aforementioned artists) rated use of colour, line and composition to communicate mood and the overall quality of expression on 7-point likert type scales developed by Jolley, Barlow Cox and Rottenberg (in preparation). Interrater agreement for all these measures were good ($ICC_{S(A, k)}$ ranged from .505 to .898, 95% *CI*s ranged from .267 to .930). For the three expressive drawings, results indicated that Steiner pupils generally depicted more expressive content themes, used formal properties more expressively, and produced higher quality expressive drawings than Montessori and National Curriculum pupils. These differences were most commonly found in the older age groups, the 7- and 9-year-olds, and in the pictures expressing a happy or angry mood. These findings add further evidence to suggest that the approach taking in Steiner schools not only fosters creative development but more specifically the development of expressive drawing ability.

Two raters rated the representational drawings collected by Rose et al. (2012). The drawings of the model of the running mannequin were rated for representational accuracy. This was done using a modified version of the rating scale devised by Cox, et al. (1998) and also used by Cox and Rowlands (2000). The revised scale had a maximum of score of 23 points were awarded for depicting the head, torso and each limb. Additional points were awarded if these were depicted as zones rather than lines. This made it possible for the scores to reflect children's ability to draw the human figure as a conventional form rather than in a less developmentally advanced way, such as a tadpole (a head with arms

and legs but no torso). The house drawings were rated using a 14-point scale based on Barrouillet, Fayol and Chevrot's (1994) guidelines for rating house drawings for the level of realism depicted. The free drawings were rated on a 7-point likert type scale for how realistic and life-like they looked with raters asked to consider the amount and level of detail depicted, spatial arrangement, depth, proportion and perspective. Interrater agreements for the representational drawings were good ($ICCs_{(A, k)}$ ranged from .814 to .981, 95% CI s ranged from .727 to .986]) and the scores for the three drawings were combined to create an overall score for representational drawing skill for each participant. Results indicated that although at age five Steiner pupils performed more weakly than their National Curriculum and Montessori school counterparts, by age seven Steiner children were the most competent compared to their same-aged counterparts. This reflects the findings of Cox and Rowlands. However, by age nine there was no difference in performance between pupils attending the three different school types. Closer examination of the results reveal that compared to performance at age seven National Curriculum and Montessori pupils had improved considerably whereas Steiner pupils had improved marginally. These findings may reflect differing courses in the development of realistic drawing ability between the three educational approaches. Mapping out further developmental progressions among children older than 9-years-old is necessary, particularly as Steiner pupils are not taught representational drawing skills until age 12.

Rose et al. (2012) also considered the relationship between the development of representational and expressive drawing ability. It has been suggested that children's developing ability in representational drawing during mid-childhood might stifle their expressive drawing (e.g., see Davis, 1997a, 1997b; Gardner, 1980, 2006; Rosenblatt & Winner, 1988). However, this is a question that has received only minimal research attention, and under limited task conditions (Picard, et al., 2007; Jolley, et al., in preparation; Jolley, et al., 2004). Both Jolley et al. (2004) and Picard et al. found

evidence for positive correlations between expressive and representational drawing skills. However only one of these, Picard, et al.'s finding that participants' scores on representational and expressive drawings of a person, reached statistical significance. Nonetheless, further support for this relationship between expressive and representational drawing is reported by Jolley, et al. (in preparation) who found significant correlations between representational drawings and five measures of expressive drawing ability (subject matter, use of color, line, composition, and the overall expressive quality). The question of the relationship is also relevant when applied to different art educational curricula and settings. For instance, it is important to discover how the nature of the developing relationship in children's representational and expressive drawing varies in different educational settings, and in particular, which program seems to be the most mutually beneficial. This was addressed by Rose, et al. (2012) and positive relationships were found between scores for overall quality of expression and overall representation for both the Steiner and Montessori school ($r = .553$ and $r = .355$ respectively). However a negative correlation was found for the National Curriculum pupils ($r = -.108$), although this did not reach the level of significance. This might suggest that the curricula and pupils' experiences in the Steiner and Montessori schools are beneficial to both their representational and expressive drawing abilities, whereas in National Curriculum schools this might not be the case. However, this finding was very exploratory and complex considering that varying relationships were found when each age group from each school type was considered separately. Consequently, this is an area in need of further investigation.

2.3 Attitudes and Practices Relevant to Children's Drawing

Empirical evidence considering the development of children's drawing ability has tended to focus on the end product with little attention being given to the experiences which may influence that product. To increase our understanding of how

children develop their drawing skills we must consider sociocultural factors. This includes children's experiences of drawing at school as well as at home. At school the amount of time spent on drawing activities, the help received with drawing and the teachers own art values will influence the children's experience. At home the main influence will come from the parents, their art values and the materials and support they provide for drawing. Additionally, these factors will also influence children's own attitudes towards drawing and these may alter with age. It is the practices, and attitudes of those directly involved in the children's drawing experience upon which will be focused on in this section.

The three key players who are most directly involved with children's drawing experience are parents, teachers and the children themselves. The attitudes and practices of teachers have a crucial role in shaping children's drawings as even though there is a curriculum for art education the reality is that the interpretation and the implementation of these is often left to the individual teacher. Likewise, parents' attitudes influence the guidance and support they give as well as how they understand and evaluate their child's behaviour (Savage & Gauvain, 1998). Furthermore, when investigating pupils from National Curriculum and Steiner schools it is particularly important to consider the attitudes of the parents as these may differ between the two school types. This was commented on anecdotally by Cox and Rowlands (2000) who suggested that the superior drawing ability of Steiner pupils may be due to these schools attracting more creatively minded parents. These parents may then subsequently offer a more supportive and nurturing home environment for drawing development, which could in turn contribute to difference in drawing ability found between pupils attending the two school types. Furthermore, the attitudes of children may influence the drawing experiences of other children, and these may also affect between-school differences in drawing ability. Indeed, Wilson and Wilson (1977)

comment on the notable frequency that young people learn to draw from one another and the influence they hold over each other's drawing experience. A further argument for the necessity of talking to children themselves is that in order to gain a true insight into children's experiences we cannot, and should not, rely on simply asking teachers and parents their perceptions of children's drawing experiences (Einardóttir, 2007).

Research considering the influences of these three key players on children's drawing experiences will now be discussed. This research has tended to focus on three broad topic areas: (a) attitudes and perceptions about children's drawings; (b) the help and support that children receive with art/drawing; and (c) the decline of drawing behaviour. This research has considered only the attitudes and practices of the key players associated with mainstream Western education, the possible differences in the attitudes and practices of those associated with Steiner schools will be considered at the end of this Chapter

2.3.1 Attitudes and Perceptions about Children's Drawings

Enjoyment of drawing and motivation to draw. The arts, including drawing, seem to be popular among many children. For instance Goodlad (1984) found this was the school subject most enjoyed by American pupils in elementary through to senior-high school. Recent research in this area by Burkitt and colleagues has considered the attitudes and practices of teachers, parents and their children aged 5 to 14 years. This research, similar to much previous research in the area, used a survey methodology, but focused on a much wider age range of children and collected data from all three key players involved in children drawing experiences; the children and their teachers were interviewed while their parents completed questionnaires. All the surveys contained questions requiring both open-ended and closed responses covering a wide range of topics concerning children's drawing experiences and attitudes. This resulted in a very large data set and findings from this survey study have been reported

in an article focusing on the educational influences on children's drawings (Burkit, Jolley & Rose, 2010) included in a book chapter (Jolley, 2010) and some are still to be disseminated (Jolley, Rose & Burkitt, in preparation). Further support for children's enjoyment of drawing comes from this survey study as the majority of pupils reported that they enjoyed drawing 'a lot' and the majority of teachers reported that 'almost all the pupils in their class enjoyed drawing' (Burkitt et al., 2010, p.261). This positivity found by both Goodlad and Burkitt et al. represents the attitudes of children from early childhood to mid-adolescence. Furthermore, positivity towards drawing was supported by children's evaluations of their own drawing ability. Children generally report that they are 'quite good' or 'very good' at drawing (Burkitt, et al., 2010), that they liked their drawings and thought that they were 'correct' (Bonoti & Metallidou, 2010). However, in these investigations of drawing self-efficacy with pupils from age 4- to 14- years-old there was some indication of a small age related decline in satisfaction with their own drawings. This will be more fully discussed when the factors concerning a decline in the amount of time that children chose to spend drawing are considered.

As well as children expressing satisfaction with their drawings Kanter and Hoffman (1992) commented on parent's satisfaction with the works of art produced by their preschool children. There was no numerical data presented to support the frequency of parent's reports, only Kanter and Hoffman's interpretations. Similarly, no numerical data is presented for whether parents reported that children's engagement in art activities was initiated by the children themselves or suggested by others. Instead Kanter and Hoffman simply summarise that 'many parents reported that their children relied on others suggestions to 'do art activities' as much as initiating activities on their own' (Kanter & Hoffman, 1992, p.54). Further understanding of children's motivations to draw can be gained from the interview data

presented by Kanter and Hoffman. From this data six themes were identified, these were; ‘it is natural and fun’; ‘their teachers insist’; ‘they become proficient through practice’; ‘their parents are charmed by their works’; ‘they can give their artworks as gifts’; and ‘they make and maintain friendships through making art together’. As this was a thematic study there is no indication of the relative frequency with which the various themes were reported. Nonetheless, the themes identified suggest that although the influence of others is often the motivational factor some young children do seem to find internal motivation for drawing. Furthermore, as these themes and Kanter and Hoffmann’s comments were based on evidence collected from children under the age of 5 it is possible that they under represent the extent to which children in general may choose to draw based on their own motivations rather than in response to encouragement from others. As children mature and become more independent they are more likely to choose their own activities and consequently an understanding of their own motivations for drawing become increasingly relevant.

Further insight into the motivations can be gained from the data collected by Burkitt et al., (2010). From the 270 participating children 51% reported that someone else encouraged them to draw, usually a parent or sibling. However, pupils also reported motivations for self-initiated drawings. The most frequently reported precursor to these was boredom (21%) followed by seeing something that they wanted to draw (10%) and enjoyment of drawing (10%). These views were reflected by the children’s parents who most frequently reported social motivation (23%) as being their child’s motivation to draw, closely followed by boredom (22%) (Jolley, et al. in preparation). From these findings it seems that children of all ages frequently rely on others to motivate them to draw, with self-initiated drawing reflecting a desire to pass time or enjoyment of the activity.

Subject matter children chose to draw. Consideration of what topics and subject matter children enjoy drawing may offer further understanding of their motivations to engage in, and enjoyment, of the activity. The most popular subject matter for drawings reported by the 5- to 14- year-old children in the study by Jolley and colleagues were people (36%) followed by animals (33%) and landscapes /vegetation (23%) (Jolley, et al. in preparation). These findings suggest that the preferred subject matter of children has altered little since the very earliest cataloguing and investigation of children's drawings over 100 years ago. For instance, Maitland (1895) also found that the most frequent subject matter of children's spontaneous drawings was humans, animals and plants. This is further supported by findings from nearly 20,000 London children between the ages of 4 to 15 years indicating that the most frequently drawn subject matter was 'Plant Life' followed by 'Humans' (Ballard, 1912; cited in Lark-Horovitz, Lewis & Luca, 1967). This suggests that much of the content of children's drawings is based on objects and scenes with which they are familiar.

A more recent influence on the content of children's drawings are the scenes and characters from popular culture and the media. This was commented on by parents, teachers and children in Jolley and colleagues' survey data. Twenty-three-percent of children made a direct reference, reporting that they often included culturally invented subject matter, for example cartoons, games console characters and so forth in their drawings (Jolley et al., in preparation). In addition to this, it seems likely that there might be many more subtle influences of culture on children's drawing. For instance, Wilson and Wilson (1977) interviewed 147 American teenagers about the source of the graphic images in their pictures and found that most of the images could be traced to the popular media or 'how to draw' books. Similarly, many Japanese children are influenced by the style of the Manga comics and films.

Indeed, Wilson (1997, 2000) found that this style was evident in two thirds of the graphic narratives produced on request by 6-, 8-, 10- and 12-year-old Japanese children. Experts in child art are divided about the effect of such images on children's drawings. Arnheim (1978) believed copying from other pictures stifles the natural creativity while others (e.g. Wilson & Wilson, 1977; 1984) pointed out that children can learn graphic principles such as foreshortening from these images and then apply them in flexible and inventive ways in their own work.

Art values. Children's preference for drawing particular subject matter is closely related to their perceptions of what a 'good' and a 'bad' drawing would be. Evidence supporting this was found when Burkitt and colleagues asked children to describe what they thought made a 'good' drawing. The second most frequently reported theme was subject matter, with 24% of children reporting that 'good' drawings were of subject matter for which they had a preference (Burkitt et al., 2010). Other commonly reported themes by the children in this study reflected mastery of formal properties. For instance, 30% made comments relating to the use of colour and 21% to the use of detail. However, when children were asked about what made a drawing 'bad' the care and effort (21%), or the lack thereof, which had gone into producing the drawing seemed to be most influential to their perception. Other commonly featured themes in children's explanation of what could make a drawing 'bad' were lack of neatness (17%), scribbles (14%) and lack of visual realism (13%). These findings reflect those of Richards (2003) who studied 136 4 -to 9-year olds through questionnaires, interviews and observations, and found that their comments generally focused on the visual realism or the size and content of the drawing, colouring properly, staying within the lines, drawing things the 'proper way' and making 'mistakes'. Additionally, many children made comments suggesting that they

regard scribbling as a bad drawing and school children commented on effort, ability and persistence as being important for successful drawing (Richards, 2003).

Teachers' and parents' perceptions of what a 'good' (and also 'bad') child's drawing was focused predominately on the child's attitude to carrying out the drawing rather than on features of the end product itself (Burkitt, et al., 2010). This lack of emphasis from teachers and parents on artistic skill or content of the drawing could possibly reflect their own lack of artistic confidence. Tenuous support for this could be drawn from the contrasting findings reported by Willis (2003) from his sample of advanced art teachers from high schools and colleges. Willis found that these teachers generally indicated that they valued ideation, intentionality and creativity rather than subject matter depicted or effort gone into producing the piece. Consequently findings suggest that while some art teachers do value the aesthetic skill many others seem to assess children's drawings based on the attitudes displayed by the child while producing the drawing. These values are likely to inform the type of feedback that children receive for drawing. While children no doubt benefit from being encouraged to have a conscientious approach to drawing and art-making children may also value feedback on the development of their graphic skills. Although this may go against the often held view that adult's should not interfere in the drawing process some children do ask for more specific help with their graphic skills (Burkitt, et al., 2010).

Importance of drawing education. Teachers generally report holding positive views about the importance of drawing education (Barry & Townsend, 1995, Coutts & Dougall, 2005; Downing, 2004; Gibson, 2003; Harland, et al., 2000; Oreck, 2004). For instance, Barry and Townsend concluded from questionnaires completed by 100 New Zealand primary school teachers that agreement was strong that art should be emphasised more in the curriculum. Similarly Oreck found positive attitudes among teachers in the USA who believed art to be important to the curriculum and recognised

its wide ranging benefits. These opinions reflect the views expressed by both teachers and parents in the study by Jolley and colleagues. When asked to respond on 10-point-scale the extent that they believed art education to be important in the context of child's whole education (10 being 'extremely important') teachers thought it to be very important (mean 8.28). Furthermore, similar ratings were given by both primary and secondary teachers, and parents also reported that it was 'fairly important' (mean 6.84) (Burkitt et al., 2010). The parents' slightly lower rating of the importance of art education is in accordance with the views of parents reported by Braswell (2006). This data, based on questionnaires from 136 western parents of 1- to 10- year old children indicated that drawing was seen as significantly less important than reading and pretence play. Similarly parents encouraged drawing significantly less and reported that their children engaged in drawing significantly less.

Perceived benefits of drawing. Although parents may not value drawing as highly as other activities in which their children engage they do perceive there to be many benefits of drawing. For instance, Jolley and colleagues found that 49% of parents cited the experience of pride and satisfaction as being a benefit of drawing, with expression (46%), relaxation and enjoyment (33%) also being frequently cited benefits (Jolley, 2010). These views were reflected by the children who explained drawing as an opportunity for them to express themselves and release emotions (12%), and as a relaxing (11%) and enjoyable (10%) experience (Jolley, 2010). The benefits of art both for the children themselves and for the school and wider community have been reported by many teachers (Barry & Townsend, 1995; Harland, et al., 2000; Hetland & Winner, 2004; Jolley, 2010; Oreck, 2004). Harland, et al. found that arts education enriched communication and expression, enhanced links with the local community (e.g. through exhibitions) and aided advances in personal and social development such as raising self-esteem and confidence. Teachers from Jolley and

colleagues survey study also commented that the main benefit of drawing was an opportunity for self-expression (50%). Additionally teachers, probably due to their feelings of responsibility for pupil's general academic development, frequently commented on the benefits of drawing to the children's general cognitive development (41%) (Jolley, 2010). All three key players' recognised expression as an important benefit of drawing; other important benefits mentioned tended to reflect advantages to children's well-being and general development. These views seem to reflect a child-centred view of the arts.

2.3.2 The Help and Support that Children Receive with Art/Drawing

The drawing attitudes that parents, teachers and children themselves have influence the help and support children experience with drawing. The attitudes of parents have been suggested to influence the extent to which parents' actively encourage their child's engagement with drawing (Anning, 2002). Mathews (2003) explained this further, suggesting that some parents may see drawing as a form of play and therefore impose few instructions (*laissez-faire* approach). In comparison, others may view drawing as a skill (or a precursor to writing) and may therefore impose their own art values on their children's drawings, such as a requirement to communicate realism. Mathews referred to this as the step-by step approach and explained that parents taking this approach held the view that drawing was a skill which needed to be taught and consequently provided their children with considerable guidance and clear expectations for their drawings. Mathews argues against both of these approaches instead he advocates that the role of adults, both parents and teachers, in children's drawing experiences should be one of positive support, providing the child with encouragement, materials, inspiration and a good environment for drawing, while still allowing them freedom to choose what and how to draw. The importance of allowing the child freedom reflects views of influential thinkers in the area such as Lowenfeld

(1957) and Arnheim (1989) who believed that children develop into artists on their own and that adult intervention will stifle creativity. This is consistent with a generally held belief in many Western countries that adult intervention will have a negative influence on drawing development (Braswell, 2006; Gunn, 2000).

Nevertheless, this view is at odds with many other areas of development, e.g. literacy development (Sénévhal & LeFevre, 2002) where parental intervention is encouraged and supported.

Although there have been anecdotal comments made regarding parents' attitudes and practices that may influence children's drawing experiences only a small number of relatively recent studies report empirical evidence (Anning, 2002; Braswell & Rosengren, 2005; Kanter & Hoffman, 1992; Knight, 2009). Anning reports two detailed case studies in which parents sit with their child discussing their drawing as well as drawing certain objects in response to their child's requests. These findings suggest that parents' believe their children's participation in drawing is important and to be encouraged. Knight, also using a case study approach, focused on the collaborative process of a mother and her young daughter (21-month-old) drawing together. She concluded that both parties were developing new skills through the rotating exchange of leadership and responding to the marks that each other made. These case studies describe environments in which parents are being supportive of their young children's art-making, engaging with them in the process, encouraging them to participate but giving them the freedom to experiment and discover new skills and talents. However, case studies, such as these, may not be providing a representative insight into home drawing experiences as they focus on single families. Additionally, due to the level of involvement required in participating in this type of study, these dyads may represent families in which the arts are highly valued and

include parents with artistic confidence. This could result in a biased understanding of children's experiences of drawing at home.

To gain wider insight into how children experience drawing at home survey studies have been used. Braswell & Rosengren (2005) collected questionnaire data from 48 mothers of toddlers in the USA. When questioned about how children learn to draw the mothers reported that although it is important that adults teach children to draw it is more important that children have some opportunity to learn to draw on their own without adult interference. It is not clear from these findings exactly what parents meant by 'teaching to draw'. This could refer to collaborative engagement such as that described by Knight (2009) or it could be a reflection of more direct intervention, such as scaffolding through demonstrating and giving the child directions and suggestions to develop their technical skills.

Open-ended survey questions have been used to elicit description from parents about the sort of help that they provide for their children when drawing. Kanter and Hoffman (1992) carried out a survey study including open-ended question inviting parents to provide more detailed responses. The questions focused on the art experiences available to their children, including the help offered, their perceptions of their child's art endeavours and their views of the role of art activities in young children's learning. These were self-completed by 82 parents of 4-year-old children in the USA. Findings suggest that parents viewed the art experiences of their children as being valuable, that they took pleasure in their child's art productions and believed that childcare centres would encourage their child's art efforts and learning. In particular, findings indicated that 42 parents (51% of the sample) reported giving their children skills-based help with art, this appeared to include directive help, e.g. "we help him to stay in the lines" (p.52) as well suggestions, e.g. "I suggest the colours" (p.52). Additionally, 29 parents (35% of the sample) made comments indicating an

appreciation of their child efforts, for example, “we give him lots of praise (p.52).

This evidence provides further insight into the types of support offered by parents to their young children. The skills-based helps seems to be a reflection of support more akin to scaffolding rather than collaboration with parents being positioned as the experts who are giving directions and suggestions to their young children to help them develop their drawing skills.

One potential concern regarding this survey data is whether individuals behave in a way that actually reflects the opinions and attitudes expressed. This was considered by Braswell and Rosengren (2005) who in addition to the survey data referred to above carried out observations of 48 mothers (from the same sample as the survey) while they were engaged in drawing tasks with their young children. It was found that these mothers reported beliefs about drawing were significantly correlated with their behaviour during these adult-child drawing interactions. For instance, mothers who thought that adults should take a proactive role in teaching drawing skills were less inclined to follow their child directions. This provides some evidence that survey data provides a valid insight into the actual practices concerning young children’s drawing experiences.

The research concerning help offered by parents discussed so far has focused on preschool aged children. However, the study by Jolley and colleagues, introduced in the previous section, extends our understanding as data was collected from children aged 5 to 14 years as well as from the teachers and parents of these children. The two most prevalent types of help that parents reported offering their children were ‘verbal suggestions’ (38%) and ‘encouragement’ (36%) (Burkitt et al., 2010). These types of help and the frequency with which they were reported closely reflect Kanter and Hoffman’s (1992) and Braswell and Rosegren’s (2005) findings. Consequently, this suggests that the reported type and frequency of help remains relatively consistent as

children get older. Additionally it seems that many parents remain actively involved in their children's drawing experiences as 58% of parents spent time 'at least once a week' interacting with their 13- to 14- year- old children while they were drawing (Burkitt et al., 2010).

When Jolley et al. report the children's own opinions of the help that they receive from their parents there was further evidence of parent's involvement in the drawing process with children reporting that their parents provided graphical demonstrations (28%) and verbal suggestions (23%). These themes were the two most commonly reported by the children. Consequently, it seems from the children's reports, and also those of the parents, that many of the drawings that children produce are a result of collaboration between their own ideas and skills and suggestions and input from their parents. It seems that the children are still afforded considerable freedom in their drawing endeavours, having the choice to follow or ignore suggestions given by their parents.

As well as investigating support for drawing in the home environment Jolley and colleagues considered support for drawing in schools. From these findings it was apparent that at school children seemed to experience less freedom in their drawing experiences than at home as 41% of teachers reported that they 'set clear expectations through demonstration and instruction'. However, 30% of teachers also reported that their own drawing skill inhibited their ability to help children to develop their drawing skills. This confirms concern that 'generalist' form teachers in primary schools may feel vulnerable teaching art and unclear about what art teaching strategies to use (Bresler, 1992; Jolley, et al., 2004; Jolley, Cox & Barlow, 2004). Furthermore, this corresponds with findings from interviews carried out with 35 teachers in New Zealand who indicated that feedback given for artwork was generally aimed at positive encouragement rather than the development of particular skills. Anning and Ring

(2004) argue that such a lack of support and feedback on drawing skill causes children to often react to problems by giving up or starting again without identifying the issues causing concern. An example of this are Anning's (2002) observations of teachers focusing on observational drawing without demonstrating strategies for this which resulted in many children becoming frustrated and giving up.

The approaches to school art education discussed so far are reflected and clearly conceptualised in conclusions from recent interviews (Hallam, Das Gupta & Lee, 2008) and observations (Hallam, Lee & Das Gupta, 2011) carried out with primary National Curriculum schoolteachers. The qualitative evidence from these studies suggested that some teachers adopted the position of facilitators, taking a child-centred approach to art education by allowing children freedom and giving them tasks that they think that the child will enjoy. The alternative approach to delivering the Art and Design Curriculum identified by Hallam, et al. was that of the teacher positioning themselves as the expert. These teachers were observed to follow a traditional teaching approach where knowledge was not negotiable or open to question by the pupils. Furthermore, Hallam, et al. (2008) commented that teachers positioned themselves *either* as an expert or as facilitator when teaching art. This implies that children taught by different teachers may experience quite different art lessons with teachers exclusively focussing either on self-expression or the development of skills.

A distinction between intervention and involvement may need to be made here as it has been observed that without any adult involvement young children will rarely engage with drawing (Kindler, 1995). This view was also advocated by Smith (1992, cited in McArdle & Piscitilli, 2002) who challenged Lowenfeld's theory of art development being based on intuition and adult involvement hindering development. Smith instead emphasised a dynamic and interactive approach to early childhood art education, a process where children and adults interchange skills, knowledge and ideas

in a climate of cooperative learning. This view has also gained support from Potter and Eden (2001) who argue that sensitive adult presence is vital to children's creative involvement, with the presence of an adult sustaining and extending the child's interest and involvement in the activity. Interactions such as these have been characterized as joint involvement episodes and have been found to be crucial to many areas of cognitive development (see review of evidence in Schaffer, 1992). Indeed this seems to be reflected in Bae's (2004) observations of a preschool classroom and her conclusion that time spent talking with children while they were engaged in drawing seemed the most effective way to sustain children's interest and enjoyment in the activity. This type of support seems similar to support that may be experienced among peers in primary and secondary school classrooms.

There is some emerging evidence regarding the type of help and support for drawing experiences that children may offer to other children. For instance, when Geiger (1977, cited in Cox, 2005) included some older children in an 8-year-olds' art group she found that the younger children's drawings took on some of the characteristics of those of the older ones. Furthermore, anecdotal case study evidence is reported by Thompson (1999) who observed that peers often engaged in drawing instruction and copying from one another in an attempt, she concluded, to improve drawing skills and widen their range of subject matter. This is reflected by a large scale interview, questionnaire and observation study involving 134 children aged 4 to 9 years (Richards, 2003). In this study Richards observed that children developed their own critical voices and developed sets of criteria for critiquing their own and others' drawings. The help of peers was also commented on in the survey data reported by Jolley and colleagues. The most frequent types of help reportedly received from other children were 'verbal suggestions' (23%), and 'graphical and spatial demonstrations' (17%). Siblings and cousins were also referred to as providing help, particularly

graphical demonstrations (Burkitt et al., 2010). From this evidence it would appear that children tend to provide each other with constructive criticisms and show each other how to do 'it'. However, it seems that not all children report experiencing help from their peers as Jolley and colleagues report that 31% of children report receiving no help from other children. Further investigation could identify whether this is related to age and perceived drawing self-efficacy. One possibility is that older children with lower drawing self-efficacy are potentially less likely to provide help to their peers and that those with higher drawing self-efficacy may be less likely to acknowledge receiving help from peers.

Overall it appears that children receive slightly different types of support for their drawing endeavours from the three key players. It seems that parents offer encouragement and become involved with their children while they are engaged in drawing giving some verbal suggestions and maybe even graphical demonstrations as the child's drawing unfolds. This has similarities with the support that children experience from their peers: often sharing in each other's drawing activities and giving each other verbal and visual feedback designed to improve the end product. At school it appears that there is less freedom experienced by children with some teachers reporting that they set very clear guidance about what they expected. This is akin to the teacher taking the role of an expert. However, it has also been observed that some teachers take a facilitator role, allowing the children more freedom but giving them some directions to encourage skill development. These different approaches may explain, and be explained by, different attitudes to children's drawing.

2.3.3 The Decline of Drawing Behaviour

Understanding children's drawing experience is not only important in relation to the period in which many drawings are produced but also during the apparent decline of drawing activity among older children. Several potential explanations for

the decline have been suggested in the literature. For example, Cox (1992) notes that children begin to express greater dissatisfaction with their drawings as they get older and suggests that this could be related to their increasing desire for their drawings to be visually realistic and their resulting frustration when the finished product does not meet their expectations. Gardner (1980) suggests that while young children seem to be driven by some internal drive to draw, adolescents lack enthusiasm. Kellogg (1970) attributed the decline in drawing behaviour to inappropriate adult pressure, lack of positive messages and poor teaching practices. For example, she argued that some adults may regard drawing as an immature activity and therefore actively discourage it as children get older. Consequently, there are various suggested causes of the decline in the frequency with which children engage in drawing activities. However, until recently there has been no empirical investigation of when this decline occurs or what the potential causes for it may be.

Jolley and colleagues found no evidence of the amount of time that children reported spending drawing at school or home decreasing with age. Nonetheless, when the perceptions of the children's parents and teachers were considered it was found that most teachers (86 %) and the majority of parents (57 %) thought there was a decline in the amount of time that children chose to spend drawing (Jolley, 2010). When asked to estimate the age at which this decline occurred both teachers and parents estimated that the decline occurs around 11 years of age. Therefore, although a decline was not reported by children it was recognised by most teachers and parents. This conflicting evidence could be the result of an inaccuracy in children's estimates of the amount of time that they spent drawing. Alternatively, older children may spend more time alone and have greater independence to choose their own activities resulting in parents and teachers being less aware of the time that they do actually spend drawing. Nonetheless, it does seem that most adults spent very little time drawing,

consequently research which considers the amount of time spent drawing in mid and later adolescence would be valuable to identify when a decline does occur.

The factors which may contribute to a decline in the amount of time that children spend drawing are also important to consider. While many factors may contribute to this, for example, increasing independence, increasing choice of free-time activities, demands on time available, peer pressure and parental influence, it is the factors primarily discussed within the literature on children's drawings which will be focused on here. Key factors suggested to explain an age related decline are children's enjoyment and self-efficacy (e.g. Cox, 1992; Gardner, 1980). However, evidence has not always provided a conclusive picture of how such factors may alter with age. Richards (2003) found no evidence among 4-to 9-year-old pupils for perceptions of drawing ability altering with age. Furthermore, Potter and Eden (2001) found from questionnaires completed by 48 5- to 10- year-old children no evidence of any age related differences in children's expressed enjoyment of drawing. Similarly no age related differences in children having mastery (focusing on self-improvement and skill development) versus performance goals (achieving in order to impress others) in their drawing were found. However, Potter and Eden did find that younger children reported that they were good at drawing more frequently than older children. Likewise additional studies (Bonoti & Metallidou, 2010; Flannery & Watson, 1991; Rosensteil & Gardner, 1977) add support to these finding that perceived drawing competence declines with age. The majority of these studies have focused on children up to the age of 10 years old, whereas in order to gain a fuller and more consistent picture of any age related decline the views and practices of older children need to be considered. However, when Jolley and colleagues considered children up to the age of 14 only a minimal decrease in children's reported enjoyment and drawing self-efficacy were found (Jolley, 2010).

Other potential factors suggested to contribute to a decline in drawing behaviour include the drawing tasks themselves, the increasing demands on children's time and their own diversifying interests. However, Bonoti and Metallidou (2010) found that pupils' perception of the difficulty levels of both simple (e.g. a man) and complex (e.g. a man inside a boat) drawing tasks did not alter with age. Consequently, it seems unlikely that the perceived difficulty of the task influences an age related decline in drawing behaviour. Instead it would seem from the survey data collected by Jolley and colleagues that the main reasons for this decline are children's diversifying interests and relationships and reduction in free time due to academic, career and household pressures increasing. This was also reflected when children, teachers and parents were asked what could be done to arrest a decline in the amount of time that children spent drawing as the most frequently made suggestion from all three parties was that 'more time and opportunity for drawing' was needed (Jolley, 2010). This would seem an obvious remedy; although not a simple one, nor necessarily an achievable one. The demands on children's time are unlikely to alter, so it is unlikely that more time will become available for drawing. Instead, consideration must be given to other possible factors which may contribute to the decline and possible action that could be taken to address these. For example, improving the art culture and environment in which children develop so that they in turn develop greater appreciation for the arts and increased motivation to engage in drawing in available time. Looking at the school environment in which children spend much of their time might be one way to achieve insight into the potential impact of the art culture in which children develop. Within England this is made possible by investigating the attitudes and practices of children who attend schools teaching the National Curriculum for Art and Design compared to those which follow the principles of Rudolf Steiner. These curricula were outlined in Chapter 1 of this thesis and there is

some evidence that the drawing ability and drawing styles of the pupils attending these two school types may differ.

2.4 School Art Culture

The emphasis placed on art within National Curriculum and Steiner schools differs. Within Steiner schools artistic activity is included in almost all lessons until the children are approximately 14-years-old (Jünemann & Weitmann, 1977). This reflects Steiner's view that the arts are central to all learning experiences (Easton, 1997). In comparison teachers of the National Curriculum talk of the arts being squeezed out of many lessons in primary school due to the increasing emphasis on literacy, numeracy and preparation for national tests on which league tables are based (Downing, Johnson & Kaur, 2003). Consequently, Steiner pupils may be encouraged not only to draw more frequently but also to value and appreciate the arts more than their National Curriculum school counterparts.

Due to the differing emphasis within the National and Steiner curricula it would appear that those attending National Curriculum schools are likely to spend less time drawing during the school day compared to their Steiner counterparts. Furthermore, Steiner pupils may spend more time drawing at home. Parents who choose to send their children to a Steiner school may themselves value the arts more highly (Cox & Rowlands 2000) and consequently may encourage drawing more. The motivations of pupils attending the two school types for engaging in drawing may also differ due to the different emphasis on art within the two curricula. For example, Steiner pupils may be more likely to engage in drawing as a result of wanting to communicate and express feelings and new knowledge. In comparison, National Curriculum pupils may be more likely to engage in drawing when they want to create a visual likeness.

According to National Curriculum for Art and Design and the approach advocated by Rudolf Steiner the help and support for drawing experienced by pupils at these two schools types is quite different. While the National Curriculum advocates teaching young pupils how to draw representationally (Department for Education & Employment, 1999) these skills are not formally introduced to Steiner pupils until much later in their schooling (Jünemann & Weitmann, 1977). Instead children are given considerable freedom in choosing what and how to draw. Furthermore, while National Curriculum pupils are expected to reach set standards (Department for Education & Employment, 1999; Qualifications & Curriculum Authority, 2007) Steiner school pupils are given little feedback on their drawing ability (Jünemann & Weitmann, 1977). These potential between-school differences might also be reflected in the support for drawing that children receive at home as the parents of Steiner pupils are encouraged to support their child's development in accordance with the recommendations made by Rudolf Steiner (Nicol & Taplin, 2012).

In addition to the curriculum other factors also influence the support that children experience with drawing at school. In particular teachers' own attitudes to drawing and their confidence in their drawing ability will influence the manner in which they deliver the curriculum. Within National Curriculum schools many teachers have reported that they lack skills and confidence in drawing and are unsure how best to deliver the National Curriculum for Art and Design (Clement, 1994; Ofstead, 2009). In comparison, the artistry of Steiner teachers is perceived to be a distinguishing feature of these schools (Woods, Ashley & Woods, 2005). These differences in skill and confidence levels are likely to influence children's experiences of drawing through the help that they receive from the teachers. Furthermore, these differences are likely be further accentuated through the different priorities set out within the two curricula. The National Curriculum emphasises the development of observational

drawing skills, however, the teachers delivering this curriculum might be the least confident in creating their own representational drawing and consequently might be quite unsure of how to develop these skills in their pupils. This may affect not only their pupils developing drawing skills but also their attitudes towards drawing. For example, a teacher who lacks confidence and enjoyment in creating their own drawings may unintentionally pass these negative attitudes on to the pupils that they teach.

Steiner's view that the arts are central to all learning experiences (Easton, 1997) may influence teachers in Steiner schools to value the arts more highly, including a perception that there are more benefits of engaging in drawing, than National Curriculum school teachers. Furthermore, parents, of Steiner school pupils may also value and perceive there to be more benefits of drawing as this may have been a motivation for them choosing to send their child to a Steiner school. These attitudes of the teachers and parents may in turn influence their children resulting in Steiner pupils perceiving there to be more benefits associated with drawing in comparison to those attending schools teaching the National Curriculum.

2.6 Summary of the Evidence and Objectives of this Thesis

Emerging evidence suggests that young Steiner pupils may produce superior representational and expressive drawings (Cox & Rowlands, 2000; Rose, et al., 2012). However, these studies had various limitations, as discussed in Section 2.2. In particular they did not consider the drawings of pupils over the age of 9 years old, they focus exclusively on drawings where the content or topic is prescribed by the researcher and they consider the drawings in isolation of any comments made by the child while drawing (see Chapter 4 for further discussion of this limitation).

Consequently, the aims of this thesis include addressing these limitations. This results

in a more comprehensive and valid understanding of how a range of drawing abilities develop in two quite different school types.

A further limitation of previous research in this area is that there is little consideration of the teachers' and parents' attitudes towards children's drawing, or indeed the drawing attitudes and practices of the children themselves. While it is possible to gain an understanding of the drawing education taking place in Steiner and National Curriculum schools through reading about the pedagogy, it is imperative that the actual practices and attitudes of teachers are considered. Insight into actual classroom practices can be gained through talking to teachers and the children they teach. In addition, children's drawing ability and attitudes can be influenced by those of their parents. It is possible that some of the superior expressive abilities found among Steiner school pupils in previous research may be a result of Steiner schools attracting parents who value the arts more highly and may nurture creativity in their own children (as suggested by Cox & Rowlands, 2000 and Rose et al., 2012). Consequently it is imperative that the attitudes and practices of parents towards children's drawings are also investigated.

Children's own drawing attitudes and practices alter as they grow up. It is generally accepted that while young children enjoy drawing and spend a considerable amount of time drawing, older children spend less time drawing. Many researchers (e.g. Cox, 2005; Gardner, & Winner, 1982; Kellogg, 1970) comment on such a decline and it is recognised by most adults (Burkitt, Jolley & Rose. 2010), however, there is little empirical evidence which has aimed to assess whether such a decline actually occurs. Furthermore, there is little consensus as to when this decline occurs, what the reasons for it may be and what, if anything should be done to arrest any decline. Investigating the attitudes and practices of pupils (aged 6 to 16 years) and their

teachers and parents from both National Curriculum schools and Steiner schools offers an opportunity to gain greater insight into the nature and factors affecting the decline.

To summarise the aims of the thesis are:

3. To investigate drawing ability and drawing style among National Curriculum and Steiner Pupils.
4. To investigate the children's, teachers' and parents' attitudes and practices relevant to National Curriculum and Steiner pupils' drawing experiences.

2.6.1 Objectives of This Thesis

To address the gaps in the literature and meet the aims outlined above two extensive and large scale studies are reported in this thesis. The first study focuses on the end products (the drawing) that are created by National Curriculum and Steiner pupils and the second on the drawing attitudes and practices of these pupils, and their parents and teachers.

Study 1. The objectives of this study were to identify similarities/differences in the development of drawing ability between pupils, aged 6 to 16 years, from National Curriculum and Steiner schools. In particular study 1 addressed the following questions:

1. What differences/similarities are there in ability to express a happy, sad, or angry mood (i.e. expressive drawing ability)? (Section 3.2)
2. What differences/similarities are there in ability to depict life-like representations from a model and from memory (i.e. representational drawing ability)? (Section 3.3)

3. What is the nature of the relationship between the development of representational and expressive drawing skill and how does this compare between the two school types? (Section 3.3)
4. What differences/similarities are there in free drawings, both in overall drawing ability and style? (Section 3.4)
5. What differences/similarities are there in the expressive, representational and free drawings of National Curriculum pupils who have opted to continue studying art by choosing this as a GCSE subject? (Sections 3.2, 3.3 & 3.4)
6. What differences/similarities are there in the creative intentions behind the drawings? (Chapter 4)

Study 2. The objective of this study was to examine the attitudes and practices of children (age 6 to 16 years), their teachers, and their parents associated with National Curriculum and Steiner schools. In particular study two addressed the following questions:

1. What differences/similarities are there in the amount of time that children spend drawing, their motivations to draw, drawing self-efficacy, enjoyment of drawing and preferred subject matter? (Section 5.2)
2. What differences/similarities are there in children's, teachers' and parents' perceptions of the benefits of drawing? (Section 5.2)
3. What differences/similarities are there in the help and support for drawing offered by teachers and parents and experienced by children? (Section 5.3)

4. Is there evidence for an age-related decline in the amount of time that children chose to draw, their enjoyment of drawing and their drawing self-efficacy? (Section 5.4)
5. Are there differences/similarities in the attitudes concerning a decline in the amount of time that children chose to spend drawing between the two school types? (Section 5.5)

CHAPTER 3: DRAWING STUDY

In this chapter a large scale study investigating the drawing abilities of pupils attending National Curriculum and Steiner school is reported. It was anticipated that pupils attending schools teaching the English National Curriculum for Art and Design would demonstrate superior representational ability, while those attending Steiner school would demonstrate superior expressive ability. Additionally, it was predicted that stylistic differences would be evident in the free drawings created by the pupils attending the two school types. To test these predictions 180 6- to 16-year-old pupils from the two school types completed three expressive, two representational and one free drawing. Artist raters assessed each drawing.

The findings indicated that there were no consistent between-school differences in the expressive drawings. However, Steiner pupils produced superior representational drawings and stylistic differences of colour and composition were evident in the free drawings. Consequently the predictions made were not confirmed by the results. The unexpected findings are discussed in relation to the social, cultural and educational influences on children's drawing development

3.1 Introduction

In this section the aims and full details the methodology are described. The results gathered are reported in the subsequent three Sections (3.2, 3.3 & 3.4). The first of these will focus on expressive drawing ability, the second on representational drawing ability and the third on the style and ability evident in a free drawing. The final Section (3.5) summarises these findings and discuss them in relation to the predictions made in this Section.

3.1.1 Aims and Objective of Drawing Study

The present study aimed to assess both the expressive and representational drawing abilities of pupils from National Curriculum and Steiner schools across four age groups (7-, 10-, 14- and 16-year-olds). To assess expressive drawing ability all participants were asked to draw a happy, sad, and angry picture. Pupils were given the freedom to choose their own subject matter for these three expressive pictures, but were encouraged to make their drawings expressive of the intended mood. These tasks have been used successfully in previous research assessing expressive drawing development (e.g. Davis, 1997; Jolley, Cox & Barlow, 2003; Jolley, Fenn & Jones, 2004; Pariser & van den Berg, 1997; Rose, Jolley & Charman, 2012). Furthermore, these basic moods of happy, sad and angry were chosen as previous research has established that these mood descriptors are easily understood by all children aged five years and over (Ridgeway, Waters & Kuczaj II, 1985). Also, these moods can be expressed through relatively simple graphical techniques (e.g. facial expression and colour choice) and are easily distinguishable from one another, unlike depictions of surprise and fear which may be depicted in a somewhat similar way. Additionally, Ridgeway et al. found evidence that the other basic mood descriptors of surprise, fear and disgust are less well understood and less frequently used by young children.

The happy, sad and angry expressive drawings produced in this study were assessed for the expressive use of three formal properties, namely, colour, composition and line. These formal properties can be used to express mood in all types of expressive drawing, whether they are representational, with realistic content, or more abstract in nature. Furthermore, these measures have been used and strategies for their measurement developed in previous research (e.g. Davies 1997; Jolley et al., 2003, Jolley et al., 2004; Rose et al., 2012; Winston, Kenyon, Stewardson, & Lepine, 1995).

In addition to these measures each drawing was also assessed for its overall

quality of expression, in other words the degree to which it expressed the intended mood. This measure required consideration of the expressive nature of the content of the drawing along with the formal properties used to depict that content. Again this is a measure which has been used, and developed, in previous research (e.g. Davies 1997; Jolley et al., 2003; Jolley et al., 2004; Rose et al., 2012.)

In addition to the expressive drawing tasks participants were given two representational drawing tasks with instructions that emphasized drawing the subject matter realistically. They were asked to make an observational drawing from a wooden mannequin. The same task was used by Cox and Rowlands (2000) and Rose et al. (2012). Furthermore, human figure drawings have been consistently found to be a popular and well-practiced subject matter among children (Cox, 1993). The second representational drawing task required children to draw a house. As children frequently draw representational pictures from memory, rather than having a model in front of them, children were asked to draw a 'real and life-like' house from their memory. The topic of a house was chosen as it is popular among children and has been used in previous studies as an assessment of representational drawing ability (e.g. Barrouillet, Fayol & Chevrot, 1994; Markham, 1954; Rose et al., 2012).

As well as the prescribed drawing tasks, participants also completed a free drawing. This provided them with the opportunity to draw whatever topic in whichever style they chose. This freedom has been suggested to be important as previous research has been criticised for predominantly assessing drawing ability based on children's productions of drawing of specific topics as specified by the researcher. It has been argued that this may lead to underestimation of drawing ability as children do not have the freedom to produce drawings of subject matter which they have chosen (e.g. Jolley, 2010). The main challenge presented by using the task of a free drawing concerns how it is rated and assessed. In particular it is challenging to

identify a comparable assessment procedure which can be applied to a wide range of topics which inevitably result from providing children with so much freedom. In this study four areas for assessment have been focused on; the overall drawing ability, as assessed by two artist raters, and the more stylistic aspects of the (a) extent to which a scene compared to a single object has been depicted, (b) the size of the drawing and (c) the colours used. For the measure of overall drawing ability the approach used by Cox and Rowlands (2000) and Cox, Perara and Xu (1999) was followed. Each drawing was rated by two independent judges on a likert type scale according to 'how good they think the drawing is'. However, in contrast to the previous research the judges in the present study were artists (rather than undergraduate students).

The measures of colour use, size of the drawing and the extent to which a scene or single object is represented are not indicators of drawing ability per se, but they do provide insight into the drawing styles. These measures were chosen based on anecdotal comments that have previously been made by researchers comparing the drawings of National Curriculum and Steiner pupils. Cox and Rowlands (2000) and Rose et al. (2012) commented that Steiner pupils tended to produce more scene based drawings whereas their National Curriculum peers had a tendency to draw just a single object. Furthermore, Cox and Rowlands commented that children from Steiner schools tended to use the whole page, often shading the background right to the edge of the page compared to their National Curriculum school counterparts. Assessing each drawing for the extent to which a scene is depicted compared to a single object, and also measuring the area of the page used for the drawing, provided a more quantitative measure of this previously perceived difference. Finally colour use was recorded as Cox and Rowlands found evidence that Steiner pupils (between the ages of 5 and 7 years) used more colours than their National Curriculum counterparts. Furthermore, Burkitt, Barrett and Davies (2005) found evidence that colour choice differed between

Steiner and National Curriculum pupils. Although this was in the context of drawing either a happy or a sad man it suggests that examining colour may reveal some educational differences, especially considering the emphasis on colour use in Steiner schools. This emphasis on children's awareness and understanding of colour involves providing them with a limited range of colours and encouraging them, on the page, to combine the colours to create new colours (Jünemann & Weitmann, 1977). This encouragement to create and combine new colours within the Steiner Curriculum has been reflected in the assessment of colour use in this study. As well as counting the individual colours used, the instances of colour combining were also recorded.

The free drawing also provided the opportunity for semi-structured interviews to be carried out to investigate the participant's creative intentions. Creative intentions are a fundamental part of the drawing process, as without the idea there is no drawing. Children often have very elaborate and well thought out plans and ideas of what they are going to depict, but due to a lack of the necessary skills their finished drawing sometimes look very muddled. By asking children what they plan to draw and about the contents of their finished drawing, insight will be gained into children's creative intentions. These semi structured interviews and resulting analysis are discussed in Chapter 4.

In the light of the different educational approaches discussed in Chapter 1, and the small amount of previous research discussed in Chapter 2, the following predictions have been made about the artistic ability and styles of children from National Curriculum and Steiner schools.

1. For the expressive drawings it was expected that, Steiner pupils, across all age groups, would produce drawings with higher overall quality of expression and more advanced use of expressive line,

colour and composition compared to their National Curriculum school counterparts. This would reflect the emphasis within the Steiner Curriculum on imaginative and expressive drawing and would also support the previous findings of Rose et al. (2012).

2. For the representational drawings it was expected that those made by the Steiner school pupils in the two oldest age groups (14- and 16-year-olds) would be more highly rated than those of their National Curriculum counterparts. This prediction was based on the assumption that the introduction of the teaching of representational drawing skills at age 12 years in Steiner schools would have a positive impact on drawing ability. Among the two groups younger pupils (7- and 10-year-olds) fewer differences were expected in the representational drawing. This reflects the rather mixed findings of Rose et al. (2012) for between-school differences in representational drawing ability between the ages of 5 and 9 years old.
3. It was anticipated that the relationship between representational and expressive drawing would be positive for pupils of both school types, but that this would be strongest among Steiner pupils compared to National Curriculum pupils. This would reflect the significant positive correlations found by Rose et al. (2012) for these abilities among Steiner pupils and the positive, but not always significant correlations among National Curriculum pupils found by Jolley et al. (2004).

4. In the free drawing, it was expected that there would be differences in drawing ability between school types and that the drawings made by the Steiner pupils might be more highly rated. The prediction of the direction of this difference is rather tentative as it is primarily based on the findings of Cox and Rowlands (2000) and these were based on a sample of 5- to- 7- year-old pupils. However, based on curriculum differences and anecdotal comments by Rose et al. and Cox and Rowlands, directional predictions about stylistic elements of these free drawings could be made. It was predicted that Steiner school pupils would generally depict scene based drawings and use a greater number of colours, combine colours more frequently and fill more of the page compared to their National Curriculum counterparts.

5. Among the 16-year-old pupils it was predicted that differences would be found among those National Curriculum pupils taking an art GCSE, those not taking an art GCSE and Steiner school pupils. No previous research has considered the drawing ability of 16-year-old National Curriculum or Steiner pupils hence no directional predictions could be made on the basis of previous findings. However, based on the curriculum and amount of emphasis on drawing it is anticipated that those taking a GCSE course involving the fine arts will have similar drawing ability to the Steiner school pupils, reflecting the considerable emphasis placed on the arts in Steiner schools. Furthermore, it is anticipated that both these groups will generally produce more highly rated drawings compared to those 16-year-olds not taking an art GCSE and who therefore receive no school tuition in drawing skills.

3.1.2 Method

Participants. Participants were 180 pupils from four age groups (6-7, 9-10, 13-14, and 15-16 years) and two school types (National Curriculum and Steiner). Five National Curriculum and four Steiner schools were involved in this research. To reduce sampling bias participants were recruited for each age group and each school types from at least two schools. For each of the younger three age groups, 20 children from schools teaching the National Curriculum and 20 children from schools following the Steiner Curriculum participated. For the oldest age group the sample consisted of 20 children from National Curriculum schools who were taking a Fine Art or Art and Design GCSE, 20 who had not opted to take art and 20 from Steiner schools. The mean ages (with standard deviations) for all groups of pupils are shown in Table 3.1. The gender split was equal, with 10 males and 10 females participating in each age group from each school type. Pupils, largely of white ethnic-origin, were selected from their classes by teachers. Teachers were instructed to select children that they thought would enjoy participating in the drawing activities, but they were also requested to select children who were representative of their classes' drawing ability rather than just those who were especially good at drawing. Consent letters were sent home to the parents or guardians of each pupil and each pupil was verbally asked if they were happy to participate. No parents denied consent and all pupils gave positive verbal consent.

Table 3.1

Means (year: month) and standard deviations of participants' ages by year group and school type.

	School									
	National Curriculum					Steiner				
		Taught Art				not taught art				
Age	7	10	14	16	16	7	10	14	16	16
Mean	7:2	10:0	14:3	15:9	16.2	7:4	10:1	13:8	15:1	15:1
Std. Deviation	2.51	3.51	3.28	3.74	5.44	3.39	4.61	3.55	4.14	4.14

The British Picture Vocabulary Scale (BPVS, second edition: Dunn, Dunn, Whetton & Burley, 1997) was administered to all children in the youngest age group to ensure that they were all capable of understanding the task instructions. Standardized scores (min = 85: max = 128) indicated that all children in the youngest age group had average, or above average vocabulary comprehension. Consequently none should have experienced difficulty in understanding the task instructions used in this study.

Schools from across England were chosen according to geodemographic classification using 2010 ACORN Profiles (Acorn, 2010). ACORN is a freely available, internet geodemographic tool which divides United Kingdom postcodes into five main sociodemographic categories. Categorization is based on UK census data and extensive lifestyle surveys. Variables are included in the categorization process are too numerous to list here but they include house type, size and ownership, family size, educational attainment, occupation, level of spending, financial investments held, internet use, preferred newspaper and television channels. Updating occurs annually and takes into account feedback from users and the general public. The schools chosen were all from areas dominated by 'urban prosperity' and 'comfortably off' classifications.

Schools were chosen to be as representative as possible of their particular school type. The four Steiner schools were all well-established schools with experienced Steiner trained teachers. Additionally, confidence of reliability in Steiner teaching approaches can be gained from the latest government funded report which commented on the high level of consistency among Steiner schools (Woods, Ashley & Woods, 2005). National Curriculum schools all follow a prescribed curriculum, supported by detailed schemes of work and each school is regularly inspected by Ofsted. Inspections occur approximately every four years and schools are graded as being inadequate, satisfactory, good or outstanding. The five National Curriculum schools participating in this research had all been graded as satisfactory, good or outstanding. Steiner schools are also visited by Ofsted inspectors and graded against the same level descriptors. The Steiner schools participating in this research had been graded as either satisfactory or good. Consequently, although only a small number of schools participated in this research, the results are likely to be representative of the respective school types.

Materials. A separate sheet of white A4 paper was used by each child for each of the six drawings. For each the drawings every child was provided with seven coloured pencils (red, green, blue, yellow, pink, brown and black) and an HB pencil. The coloured pencils had a large barrel size, making them easy for even the youngest children to grip and to aid quick colouring. For the observational drawing artists' wooden mannequins were used. These had facial features (eyes, mouth and nose) added, and one was set up in a running position facing the right (from the child's vantage point) on the table in front of each child, see Figure 3.1.

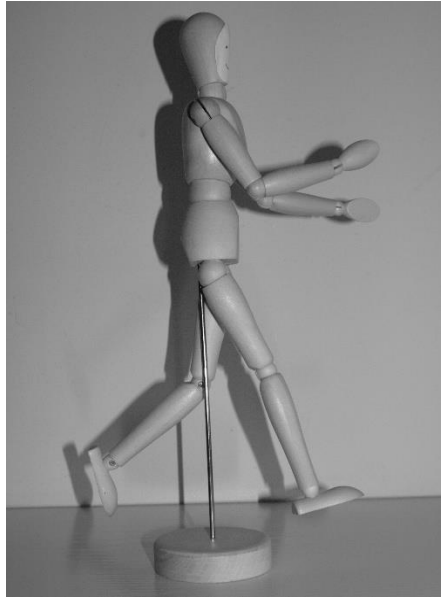


Figure 3.1. Example of artist's wooden mannequin, with facial features, set up in a running position as used in the study.

Procedure. Every participant completed six drawing tasks. The drawings were carried out in groups of between 3 and 15 pupils. Talking was discouraged and pupils were seated as far apart as possible to deter copying. Pupils had 10 minutes to complete each drawing. The three expressive drawings were completed during one 30 minute session. The two representational drawings were completed in a separate session, as was the free drawing. The order of these three sessions was counterbalanced, as was the order of the drawings within each session. The expressive and representational drawing sessions took place on separate days to ensure that pupils did not become fatigued or bored with drawing tasks. The following instructions were given for each task.

Mannequin Drawing

“Look at the man in front of you, he is running that way (researcher pointed to the child's right). I want you to draw exactly what you see, but not the base or the pole (researcher pointed). Also you don't need to draw the detail of the joints/circular

bits (researcher pointed). Draw the man running that way (researcher pointed to the child's right)".

House Drawing

"I would like you to draw me a picture of a house. Try to make it look as real and as life-like as you can. It can be of any house as long as it looks like a real house".

Free Drawing

"I would like you to draw me a picture of anything that you want; you can draw whatever you would like to".

Happy/Sad/Angry Drawing

"I would like you to draw me a happy/sad/angry picture. It can be of anything that you want as long as it looks happy/sad/angry. It does not matter what the picture is of, but you must make it look as happy/sad/angry as you can." The instructions were repeated, with the emotion replaced, until the children had completed all three expressive drawings.

The instructions for the specific drawing task were each followed by the general directions of, "use the sheet of paper in front of you and any of the pencils that you want. You have ten minutes to do the drawing and I want it to be all your own work so please don't copy anyone else's picture. Please try to draw the best (for all but the free drawing the nature of the topic was reiterated here, i.e. Happy/Sad/Angry/House/Man) drawing that you can. Does anyone have any questions?" The experimenter then answered any questions that the children had, but did not tell them what or how to draw. After five minutes the pupils were told "You have five minutes to finish your drawing, I will tell you when you have just a minute left". After nine minutes the pupils were told "it is nearly time to finish your drawing, please try to finish in the next minute".

Rating of drawings. The raters were blind to the school, age and gender of the drawer, but not to the intended mood of the expressive drawings or the requested content of the representational drawing (house or mannequin). Two experienced female English artists were employed to rate all the drawings. The first rater holds a BA honours degree in fine art (painting). She is a professional artist who had exhibited her work in galleries in many English cities. She describes her style of painting as ‘figurative towards abstractive, with an emphasis on expressing emotion rather than reality’. The second rater holds a BA and MA in fine art. She is a professional artist, and has exhibited her work in galleries and other venues in England and France. She has also run many art workshops with children over the last 20 years. She describes her own painting style as ‘semi-abstract, being idea-based and experimental’. These raters were chosen as they have previously worked on a number of similar projects involving rating children’s drawings. This previous work had included using very similar (and in the case of the expressive drawings the same) rating criteria. Furthermore, using these raters increased validity as they are familiar with the scientific processes involved in this criterion based approach to rating children’s drawings and as artists they have genuine skill and insight enabling them to interpret and evaluate the drawings and their artistic properties to a higher level than an individual without this artistic background.

Using two raters ensured that rating criteria were being applied in a consistent way and avoided the potential of a single rater interpreting and applying the criteria in an idiosyncratic way (Robson, 2011). Several indices for assessing the extent of agreement between raters are prevalent within the literature. The most easily understood of these is percent agreement with indices range from 0 (no agreement) to 100% (perfect agreement). The obvious advantages of this index is that it is simple, intuitive, and easy to calculate. It also can accommodate any number of coders and any number of points on a continuous rating scale or any number of categories on a nominal rating scale. However, this method

also has major weaknesses, the most important of which involves its failure to account for agreement that would occur simply by chance. Another limitation relevant to assessing agreement on ordinal, interval and ratio scales is that percent agreement records only agreements and disagreements—there is no “credit” for coders whose decisions are “close.” Another common indices of inter rater agreement is Pearson’s product moment correlation coefficient, however this only really provides information about the direction in which two measurements move relative to each other. Consequently a large positive correlation coefficient does not necessarily show that the two raters are agreeing. For instance, it could simply indicate that one rater was consistently rating one point higher than the other. Measures that solve the issues of chance agreement are Cohen’s Kappa and Intraclass Correlations (ICC). The difference between these two measures is the type of design for which they should be used (Rae, 1988). Kappa is suitable for nominal rating scales whereas ICCs are the equivalent for ordinal, interval and ratio scales as their calculation involves the magnitude of the disagreement being computed, with larger-magnitude disagreements resulting in lower ICCs than smaller-magnitude disagreements. Consequently these are the measures which will be used to assess the extent to which the two artist raters have agreed in their rating of the drawings in this study.

3.2 The Development of Expressive Drawing ability in National Curriculum and Steiner Schools

This is the first in a series of three Sections which report the results of the six drawing tasks described in the previous Section. This Section focuses on the three expressive drawings collected from 180 children from National Curriculum and Steiner schools. These children all produced a happy, sad and angry drawing in response to the researchers’ instructions to draw a happy, sad and angry picture. These drawings were created in a single drawing session, the order in which the moods were requested was counterbalanced and the children were provided with

seven coloured and a lead pencil with which to complete their drawing. The scoring of these drawing will be described and interrater reliability reported before the results are presented.

3.2.1 Scoring of Drawings

The 540 drawings, a happy, sad and angry drawing from each of the 180 participants, were rated by the two independent artist raters described in Section 3.1.2. Each drawing was rated for the use of three formal properties (colour, line and composition) and the overall quality of expression on 7-point likert type scales (1 = very poor, 7 = very good). The criteria for each of these measures had been created during a previous, large scale study of children's (4- to 14-year-olds) and adults' drawings (Jolley, Barlow, Cox, & Rottenburg, in preparation; see also Jolley, 2010) in collaboration with the artist raters used in the present study. To refamiliarise themselves with the rating scales these raters were provided with the rating guidelines and example drawings from the original study. In addition to this a re-familiarisation meeting was held in which these guidelines and example drawings were discussed by both raters and the researcher. The raters were encouraged to use the whole range of scores, and it was suggested that this could be achieved by sorting the drawings into seven piles each representing a point on the scale. The raters independently rated an initial 20 drawings (randomly selected from the larger sample) on each measure. The aim of this was to re-familiarise the raters with the scale and give them the opportunity to seek clarification if necessary. These ratings were then compared and any differences discussed until a consensus was reached. Both raters then independently rated all the drawings on all four measures. The level of between rater agreement was good, raters being within 2-points of one another on each measure for each drawing. Intraclass correlations were calculated to statistically assess interrater reliability.

Recommendations for ICC interpretation are diverse. Anastasi (1988) recommended .60 as the minimum acceptable ICC value. Portney and Watkins (1993) suggested that ICCs greater than .75 represent good reliability and ICCs less than .75 reflect moderate to poor reliability. More recently there has been some debate that these levels are too tolerant (e.g. Krippendorff, 2004). The general consensus now seems to be that reliability coefficients of .8 or greater are acceptable in most situations (Nuendorf, 2002). Table 3.2 shows confirmation that a satisfactory level (Nuendorf, 2002, Portney & Watkins, 1993) of inter rater reliability was achieved on all measures for all drawing types, with almost all ICCs being above .8, and those which are not above .8 being above .75. For the statistical analysis the mean of the two raters scores for each measure, on each drawing was used.

Table 3.2

Intraclass correlation coefficients and confidence intervals for inter rater reliability of expressive formal properties and quality of expression for happy, sad and angry drawings.

	ICC (A, k)	95% CI	% of drawing rated 2-points apart	% of drawing rated 1-point apart	% of drawing for which agreement was exact
Happy Line	.809	[.740, .859]	18%	37%	45%
Sad Line	.779	[.686, .842]	20%	38%	42%
Angry Line	.857	[.777, .904]	14%	43%	42%
Happy Colour	.872	[.828, .905]	16%	41%	43%
Sad Colour	.814	[.751, .862]	23%	40%	37%
Angry Colour	.908	[.864, .936]	6%	44%	50%
Happy Composition	.798	[.729, .849]	16%	44%	40%
Sad Composition	.790	[.649, .865]	29%	35%	36%
Angry Composition	.807	[.742, .856]	21%	46%	33%
Happy Quality	.793	[.722, .849]	22%	47%	56%
Sad Quality	.816	[.754, .863]	14%	40%	46%
Angry Quality	.867	[.822, .901]	11%	46%	43%

3.2.2 Results

Expressive drawings were analysed using four separate measures, the overall expressive quality of the drawing and the expressive use of the three formal properties, colour, line and composition. All variables were checked for outliers, normal distribution and homogeneity of variance and all were found to meet the parametric assumptions for carrying out analysis of variance (Clark-Carter, 2010). Each of the

four measures was analysed using a three-way mixed ANOVA (mood x age x school). Any significant three-way interactions were further investigated through two-way ANOVAs (age x school) in which mood was held constant. Resulting significant two-way interactions were examined through one-way ANOVAs in which age was held constant. For each level of tests the level of alpha was adjusted (base level 0.05) according to the number of tests carried out at that level. Consequently, for the initial three-way ANOVAs this was .05, for two-way ANOVAs this alpha level was adjusted to .017 (.05/3) and for the one-way ANOVAs the initial alpha level was again adjusted to become .013 (0.5/4). These analyses included the scores for the National Curriculum 16-year-old pupils who had opted to take a GCSE in art, however they did not include the scores of those National Curriculum school pupils who had not opted to take art. The performances of these pupils were analysed through separate two-way ANOVAs (mood x school group) comparing the scores of 16 year old pupils attending National Curriculum schools and taking art, attending National Curriculum schools but not taking art and those attending Steiner school (these pupils all studied art). Where significant interactions were identified in these ANOVAs mood was held constant and post-hoc, pair-wise contrasts were carried out using Tukey's test to examine for significant differences between school groups. For the initial two-way ANOVA the alpha level was set at .05, for the one way ANOVAs it was set at .017 and for the Tukey tests the family wise error rate was set at .05.

As multi-way ANOVAs have been conducted the quantity of results is considerable. For the sake of clarity and brevity, significant main effects are only reported if they were not involved in higher order significant interactions. Furthermore, as the identification of between school differences and similarities were the main focus of this research it is these results that have been focused on. Consequently, although significant interactions between mood and age group have

been commented on, the follow up analysis from these has not been fully reported as they are not relevant to the research questions being addressed in this study. The following four sub-sections present the statistical findings for each formal property and overall quality of expression. Example expressive drawings from each school type and each age groups can be found in Appendix 2.

Line. Due to the quantity of data tables and figures have been used to present the descriptive data. Table 3.3 presents the mean and standard deviation for line scores by mood, school type, age group and Figure 3.2 shows a graphical depiction of this information. It can be seen from this that although the National Curriculum pupils do appear to score more highly this difference is not large or consistent.

Table 3.3

Mean and standard deviations (in italics) for the expressive use of line by mood, school type and age group.

	School										
	National Curriculum					not taught art	Steiner				
Age	Taught Art						16	7	10	14	16
	7	10	14	16	Overall						
Happy line	3.75	3.80	4.38	4.27	4.05	4.25	3.38	2.98	4.13	4.38	3.71
	<i>0.57</i>	<i>1.20</i>	<i>1.16</i>	<i>1.07</i>	<i>1.05</i>	<i>1.14</i>	<i>0.89</i>	<i>1.30</i>	<i>1.30</i>	<i>1.31</i>	<i>1.32</i>
Sad line	3.18	3.58	3.58	4.40	3.69	4.13	3.25	3.48	3.38	4.20	3.58
	<i>0.77</i>	<i>0.92</i>	<i>1.17</i>	<i>1.03</i>	<i>1.00</i>	<i>0.87</i>	<i>0.90</i>	<i>1.19</i>	<i>1.16</i>	<i>1.63</i>	<i>1.27</i>
Angry line	2.98	4.10	3.85	4.77	3.94	3.83	2.37	3.20	4.10	4.88	3.64
	<i>1.14</i>	<i>0.98</i>	<i>1.46</i>	<i>1.20</i>	<i>1.35</i>	<i>1.15</i>	<i>0.65</i>	<i>0.89</i>	<i>0.79</i>	<i>1.46</i>	<i>1.36</i>
Overall line	3.30	3.83	3.93	4.48	3.89	4.07	3.00	3.22	3.87	4.48	3.64
	<i>0.59</i>	<i>0.71</i>	<i>0.78</i>	<i>0.85</i>	<i>.84</i>	<i>0.66</i>	<i>0.61</i>	<i>0.81</i>	<i>0.74</i>	<i>1.06</i>	<i>1.00</i>

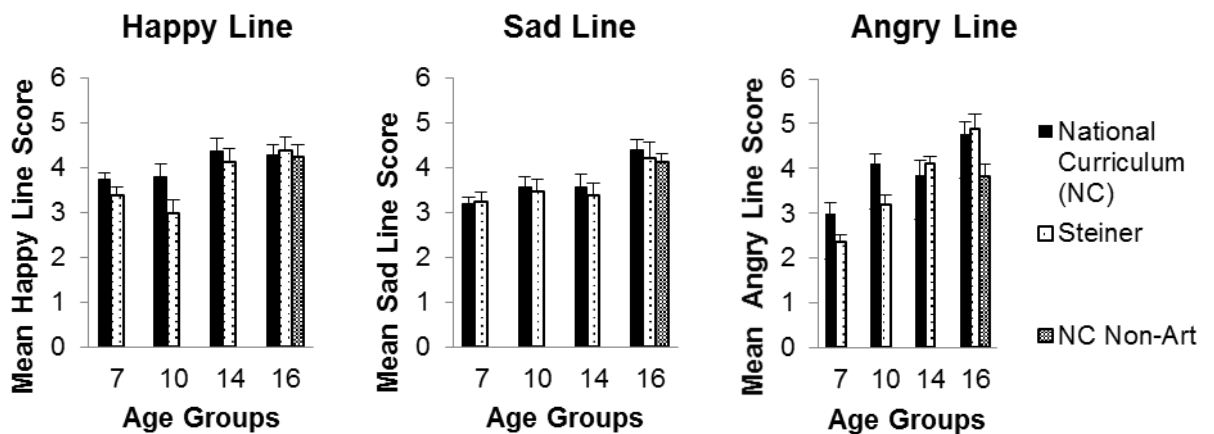


Figure 3.2. Means and standard errors for expressive use of line by mood, school type, and age group.

A three-way mixed ANOVA was conducted to examine the effects of school (2), age (4) and mood (3) on the use of line to express the prescribed mood. The three-way interaction between mood, age and school was found to be not statistically significant $F(6,304) = 1.245, p = .283, \eta^2 = .010$. Similarly the two-way interaction between age and school was not significant, $F(3, 152) = 2.269, p = .296, \eta^2 = .009$, and nor was the interaction between mood and school, $F(2, 304) = .614, p = .542, \eta^2 = .002$. The main effect of school was approaching significance, $F(1, 152) = 3.910, p = .052, \eta^2 = .010$, indicating that National Curriculum pupil may use line more expressively than Steiner pupils. The interaction between mood and age was significant $F(6,304) = 5.452, p < .001, \eta^2 = .042$. Further investigation of this indicated that there was more evidence for the expressive use of line improving with age in drawings depicting a happy and angry compared to sad mood. The lack of significant school effects were also reflected when the 16-year-olds' data were examined separately to include those National Curriculum pupils not receiving any art tuition. No interaction between

school groups and mood was detected, $F(4,114) = 1.671, p = .162, \eta^2 = .025$, and nor was any main effect of school group $F(2,57) = 1.526, p = .226, \eta^2 = .025$.

To summarise the analysis of the expressive use of line there was no between-school statistically significant differences. There was some indication of age differences, however, this was not consistent across moods.

Colour. Table 3.4 shows the mean and standard deviations for the expressive use of colour, broken down by mood, school type and age group, and Figure 3.3 shows a graphical depiction of this information. Although there appear to be some differences between schools for some age groups there is no evidence of a consistent pattern.

Table 3.4

Mean and standard deviations (in italics) for the expressive use of colour by mood, school type and age group.

	School										
	National Curriculum					School not taught art	Steiner				
	Taught Art						16	7	10	14	16
Age	7	10	14	16	Overall	16	7	10	14	16	Overall
Happy colour	2.97	3.62	3.72	4.35	3.67	4.00	3.58	3.02	4.82	4.70	4.03
	<i>0.79</i>	<i>1.35</i>	<i>1.37</i>	<i>1.40</i>	<i>1.33</i>	<i>1.54</i>	<i>0.94</i>	<i>1.32</i>	<i>1.28</i>	<i>1.55</i>	<i>1.48</i>
Sad colour	2.65	3.50	3.60	4.38	3.55	4.02	3.13	4.05	3.23	4.25	3.66
	<i>1.18</i>	<i>1.28</i>	<i>1.14</i>	<i>1.07</i>	<i>1.29</i>	<i>1.48</i>	<i>0.94</i>	<i>1.28</i>	<i>1.11</i>	<i>1.55</i>	<i>1.31</i>
Angry colour	3.10	4.18	3.08	4.55	3.75	4.20	2.90	3.30	3.48	4.83	3.71
	<i>1.07</i>	<i>0.86</i>	<i>0.85</i>	<i>1.29</i>	<i>1.19</i>	<i>1.56</i>	<i>0.99</i>	<i>1.42</i>	<i>1.08</i>	<i>1.35</i>	<i>1.56</i>
Overall colour	2.94	3.77	3.47	4.43	3.89	3.66	3.20	3.46	3.96	4.59	3.80
	<i>0.56</i>	<i>0.78</i>	<i>0.73</i>	<i>1.00</i>	<i>0.94</i>	<i>0.88</i>	<i>0.52</i>	<i>1.03</i>	<i>0.71</i>	<i>1.02</i>	<i>0.99</i>

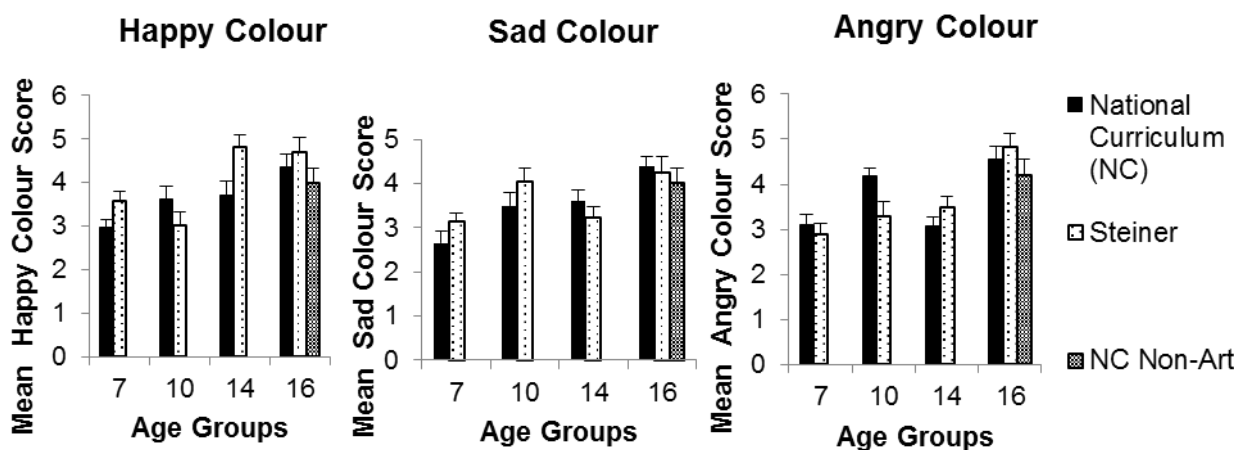


Figure 3.3. Means and standard errors for expressive use of colour scores by mood, school type, and age group.

A three-way mixed ANOVA was conducted to examine the effects of school (2), age (4) and mood (3) on the use of colour to express the prescribed mood. A significant three-way interaction was detected $F(6,304) = 3.614, p = .002, \eta^2 = .030$. Investigation of this indicated that, when mood was held constant, significant differences were identifiable in drawings depicting a happy mood but not in those expressing an angry or sad mood. Further analysis of the data for the happy drawings indicated that at age 14, Steiner pupils used colour more expressively in these happy drawings compared to their National Curriculum school counterparts $F(1, 38) = 6.876, p = .013, \eta^2 = .153$. Furthermore, at age 7 there was some indication that Steiner pupils may use colour more expressively in drawings expressing happiness than the National Curriculum pupils $F(1, 38) = 4.821, p = .034, \eta^2 = .113$. At the adjusted alpha level of $p = .013$ this does not quite reach significance. Nonetheless it is worthy of mention as it falls into the discussable region, between the adjusted alpha level and the unadjusted level of $p = .05$, as outlined by Clark-Carter (2010). More participants, and consequently an increase in power, would be required in order to confirm a significant between-school difference for this age group. At age 16 indication of these between-school differences found among some of the younger age groups were not reflected as

there was no interaction between school groups and mood detected, $F(4,114) = 0.263$ $p = .901$, $\eta^2 = .005$, and nor was any main effect of school group $F(2,57) = 1.48$, $p = .236$, $\eta^2 = .023$.

To summarise there is some indication that Steiner school pupils use colour more expressively in happy drawings, but this findings is not consistent across age groups. Furthermore, in the angry and sad drawings no between-school differences were identified.

Composition. Table 3.5 shows the mean and standard deviations for the expressive use of composition by mood, school type and age group. Figure 3.4 shows the mean and standard errors for the expressive use of composition by mood, school type and age group. No consistent pattern of between-school differences is evident in the composition data.

Table 3.5

Mean and standard deviations (in italics) for the expressive use of composition by mood, school type and age group.

Age	School										
	National Curriculum					not taught art	Steiner				
	Taught Art						16	7	10	14	16
7	10	14	16	Overall	16	7	10	14	16	Overall	
Happy composition	4.17 <i>0.63</i>	4.40 <i>1.02</i>	4.73 <i>1.01</i>	4.62 <i>1.06</i>	4.47 <i>0.96</i>	4.78 <i>1.20</i>	3.78 <i>0.98</i>	3.77 <i>1.24</i>	4.97 <i>1.09</i>	4.77 <i>1.44</i>	4.33 <i>1.30</i>
Sad Composition	3.00 <i>0.96</i>	3.17 <i>1.42</i>	3.25 <i>1.03</i>	4.48 <i>1.11</i>	3.50 <i>1.25</i>	3.63 <i>1.05</i>	3.33 <i>0.92</i>	3.55 <i>1.07</i>	4.00 <i>1.39</i>	3.90 <i>2.05</i>	3.69 <i>1.42</i>
Angry composition	3.60 <i>1.02</i>	4.77 <i>0.82</i>	4.20 <i>1.33</i>	4.65 <i>1.20</i>	4.31 <i>1.19</i>	4.63 <i>1.46</i>	3.00 <i>1.15</i>	3.55 <i>0.99</i>	4.73 <i>0.77</i>	5.15 <i>1.20</i>	4.11 <i>1.34</i>
Overall composition	3.60 <i>0.47</i>	4.12 <i>0.60</i>	4.06 <i>0.58</i>	4.58 <i>0.90</i>	4.09 <i>0.74</i>	4.34 <i>0.65</i>	3.37 <i>0.62</i>	3.62 <i>0.60</i>	4.57 <i>0.68</i>	4.61 <i>1.15</i>	4.04 <i>0.96</i>

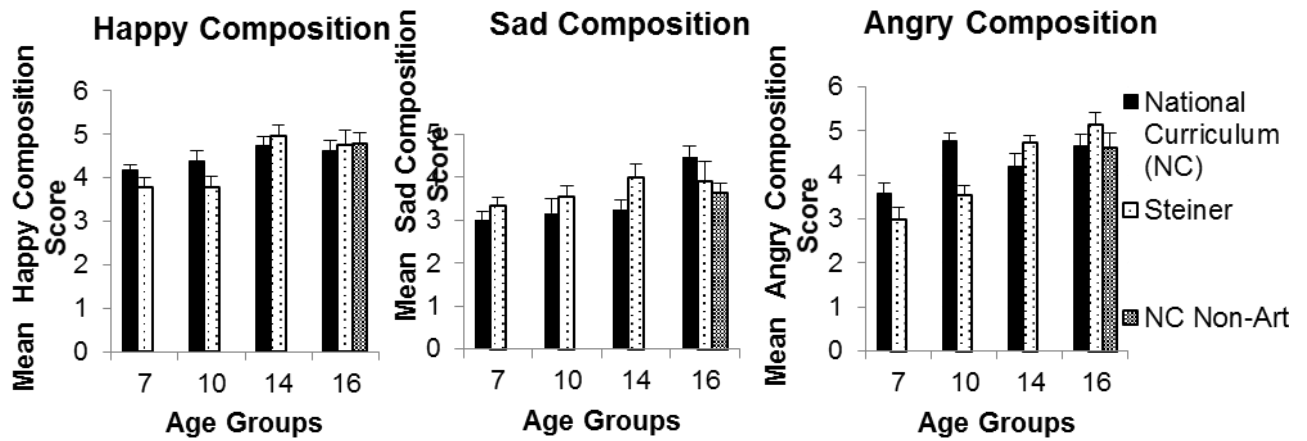


Figure 3.4. Means and standard errors for expressive use of composition by mood, school type, and age group.

A three-way mixed ANOVA was conducted to examine the effects of school (3), age (4) and mood (3) on the use of composition to express the prescribed mood. A significant three-way interaction was detected $F(6,304) = 2.888, p = .009, \eta^2 = .026$. Further investigation of this indicated that at age 10, when depicting an angry mood, National Curriculum pupils used composition significantly more expressively than their Steiner school counterparts, $F(1,38) = 18.284, p < .001, \eta^2 = .325$. For drawings depicting a happy or sad mood there were no significant between-schools differences detected. However, there were some age differences detected indicating that older pupils used composition more expressively than younger pupils: happy, $F(3, 152) = 6.514, p < .001, \eta^2 = .114$; sad, $F(3, 152) = 4.7389, p = .003, \eta^2 = .086$. When the 16-year-olds were examined separately, to include those that did not receive any art tuition, no interaction between school groups and mood was detected, $F(4,114) = 1.532, p = .198, \eta^2 = .025$, and nor was any main effect of school $F(2,57) = 0.511, p = .602, \eta^2 = .007$. In summary, there was little evidence of between-school differences in the expressive use of composition.

Quality of Expression. Table 3.6 shows the mean and standard deviations for the overall quality of expression by mood, school type and age group, and Figure 3.5 shows a graphical depiction of this information. Again there is little evidence of any consistent pattern of between-school differences.

Table 3.6

Mean and standard deviations (in italics) for the overall quality of expression scores by mood, school type and age group.

	School										
	National Curriculum					not taught art	Steiner				
	Taught Art						16	7	10	14	16
Age	7	10	14	16	Overall	16	7	10	14	16	Overall
Happy quality	4.02 <i>0.73</i>	4.02 <i>1.36</i>	4.45 <i>1.16</i>	4.65 <i>0.95</i>	4.29 <i>1.09</i>	4.60 <i>1.22</i>	3.65 <i>1.08</i>	3.35 <i>1.36</i>	4.73 <i>1.34</i>	4.43 <i>1.58</i>	4.04 <i>1.44</i>
Sad quality	3.25 <i>0.97</i>	3.83 <i>1.07</i>	3.68 <i>1.10</i>	4.75 <i>1.05</i>	3.89 <i>1.68</i>	4.25 <i>0.84</i>	3.63 <i>0.72</i>	3.88 <i>1.01</i>	4.25 <i>1.06</i>	4.42 <i>1.74</i>	4.04 <i>1.21</i>
Angry quality	3.75 <i>0.57</i>	3.80 <i>1.20</i>	4.38 <i>1.16</i>	4.27 <i>1.07</i>	4.09 <i>1.30</i>	4.27 <i>1.30</i>	2.65 <i>1.06</i>	3.83 <i>1.03</i>	4.57 <i>0.57</i>	4.95 <i>1.23</i>	4.00 <i>1.32</i>
Overall quality	3.42 <i>0.58</i>	4.04 <i>0.59</i>	4.10 <i>0.81</i>	4.76 <i>0.75</i>	4.09 <i>0.83</i>	4.38 <i>0.63</i>	3.31 <i>0.69</i>	3.68 <i>0.71</i>	4.52 <i>0.75</i>	4.60 <i>1.13</i>	4.03 <i>0.99</i>

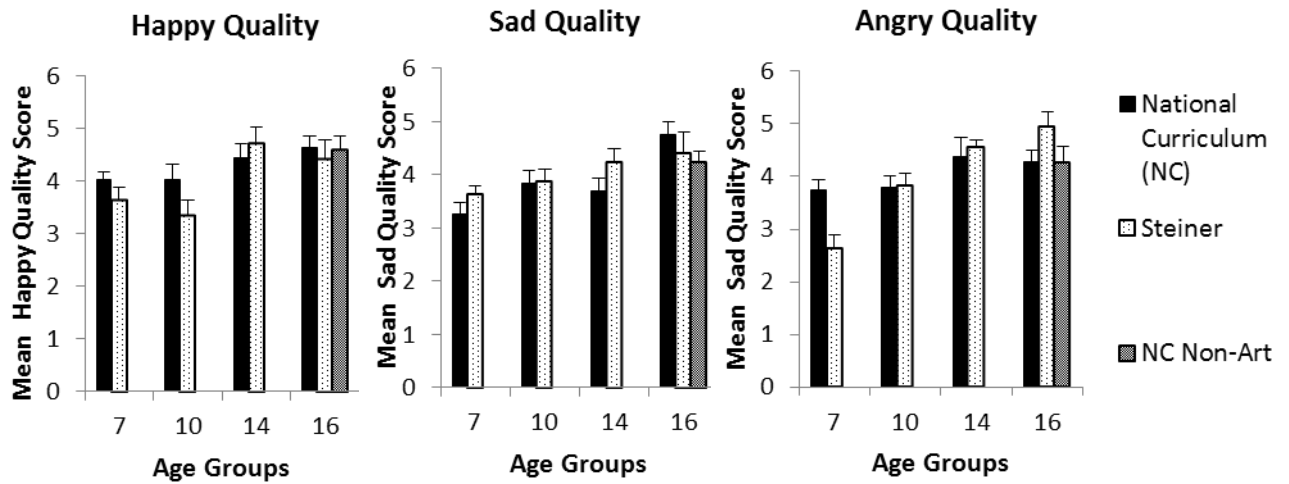


Figure 3.5. Means and standard errors for overall quality of expression scores by mood, school type, and age group.

A three-way mixed ANOVA was conducted to examine the effects of school (3), age (4) and mood (3) on the overall quality of expression. The three-way interaction between mood, age and school was found to be not statistically significant $F(6,304) = .638, p = .700, \eta^2 = .005$. Similarly the two-way interaction between age and school was not significant $F(3, 152) = 1.857, p = .139, \eta^2 = .013$, nor was the interaction between mood and school $F(3, 304) = 1.671, p = .190, \eta^2 = .005$ or the main effect for school $F(1,152) = .184, p = .668, \eta^2 < .001$. The interaction between mood and age was significant $F(6,304) = 5.041, p < .001, \eta^2 = .042$. Further investigation of this indicated that there were more age differences in the overall quality of expression in drawings depicting a happy and angry mood compared to a sad mood, with ability improving with age. When the 16-year-olds were examined separately, to include those National Curriculum pupils who had opted not to take art, no interaction between school groups and mood was detected, $F(4,114) = 0.866, p = .487, \eta^2 = .015$, and nor was any main effect of school group $F(2,57) = 0.992, p = .377, \eta^2 = .016$. In summary, there was little evidence of

between-school differences in the overall quality of expression, although there was evidence of improvement with age.

3.2.3 Overall Summary of Findings for Expressive Drawings

Between-school differences in the expressive drawings were identified for the expressive use of colour and composition. Colour was used significantly more expressively in drawings depicting a happy mood by some Steiner pupils compared to National Curriculum pupils, however this was not consistent across age groups. Composition on the other hand was found to be used significantly more expressively by National Curriculum pupils, but only at age 10 and in their depictions of an angry mood. No statistically significant between school differences were identified for either the expressive use of line or the overall quality of expression. Consequently, it appears that National Curriculum and Steiner pupils have similar expressive drawing abilities as only a small number of between school differences were identified and these lacked consistency across moods or age groups. These findings will be fully discussed, along with those relating to the representative and free drawings also collected as part of this study in Section 4.5.

3.3 The Development of Representational Drawing Ability in National Curriculum and Steiner Schools

In this Section the results for the two representational drawings collected from 180 pupils aged 7, 10, 14 and 16 years old from National Curriculum and Steiner schools will be presented. The representational drawing tasks (fully described in Section 4.1.2) were copying from a model of an artist's mannequin, which was set up in a running position and drawing a 'real and life-like house'. These drawings were produced in a single session and the order in which they were produced was counterbalanced. Section 3.3.1 the scoring of these representational drawing is

described and the levels of interrater reliability reported. The statistical analysis of these ratings is then reported before the relationship between expressive and representational drawing ability is considered.

3.3.1 Scoring of the drawings

The man and house drawings were rated by the same artist raters as the expressive drawings. For the house drawing the raters were asked to consider how realistic and ‘like a real’ house the depiction was. Originally it had been planned that Barrouillet, Fayol and Chevrot’s (1994) rating scale for scoring house drawings would be used. However, from the drawings collected it became clear that this rating scale was not suitable for this study as a ceiling effect was evident. Consequently, this scale would be unable to detect potential differences in representative drawing skill among the sample population. Therefore, features from Barrouillet et al.’s rating criteria were used to inform the guidelines given to the raters to assist them in rating on a 7- point likert type scale (1 = very poor, 7 = very good) how realistic each drawing was. These guidelines are outlined in Table 3.7. Raters were encouraged to use the whole range of scores, and it was suggested that this could be achieved by sorting the drawings into seven piles, each pile representing a point on the scale. The raters independently rated an initial 20 house drawings. These ratings were then compared and any differences discussed until a consensus was reached. Both raters then rated all the drawings. Raters were within 2- points of each other on their ratings for all drawings, 20% of the drawings were rated 2- points apart, 48% 1-point apart and 32% were given the same rating. An intraclass correlation indicated a good level (Neuendorf, 2002) of agreement between raters, $ICC_{(A, k)} = .853$, 95% CI [.803, .891]. For the final analysis a mean of the two raters scores was calculated for each drawing.

Table 3.7

Rating guidelines for house drawings, based on guidelines from Barrouillet, Fayol and Chevrot (1994).

Feature of drawing	Description
Outline of the house	The lines making up the outline should be straight and the house should be architecturally possible.
Roof	The roof should be of a traditional shape (triangular, trapezoid or flat) and be suitable for the type of house drawn.
Door	The presence of a door, and additional detail such as a door handle, letter box or number will be found on the more realistic drawings. The proportion and alignment of the door should also be considered, with well-proportioned doors with traditional alignment being more indicative of a higher rating.
Windows	A drawing receiving a higher rating will have a number of windows, which are drawn in realistic proportion to each other and the overall house. The alignment and position of the windows should also be realistic, i.e. none of the sides of the windows makes up part of the side of the house.
Perspective	The skill with which a house has been depicted in 3D should be noted, even if this has been attempted without total success this should increase the score given.
Detail	A more highly detailed drawing will be more highly rated than one lacking detail. Detail might include, a chimney, curtains at the window, indication of bricks or tiles, television aerial etc...

The mannequin drawings were also rated using a 7-point likert type scale (1 = very poor, 7 = very good) to assess how representative they were of the model of the running mannequin. As for the house drawings a ceiling effect was observed when the scales used in previous studies (Cox & Rowlands 2000, Rose, Jolley & Charman., 2012) were applied to the current data set. This ceiling effect can be explained when the age of participants is considered as previous research only included children up to the age of 10-years-old. To overcome the ceiling effect, the criteria from these published scales were used to inform the guidelines provided to the raters. Raters were provided with a photograph of the position that the mannequin had been set up in and the rating guidelines as summarised in Table 3.8. Additionally they were reminded of the importance of trying to use the whole range of scores and to sort the drawings into 7 piles to help achieve this. Both raters rated all the drawings and were within 2-points of each other on their ratings for each drawing. Thirteen percent of the drawings were rated 2-points apart, 36% 1-point apart and 51% were given the same rating. An intraclass correlation indicated a very good level (Neuendorf, 2002) of agreement between raters, $ICC_{(A, k)} = .920$, 95% CI [.888, .942]. For the final analysis a mean of the two raters scores was calculated.

Table 3.8

Rating guidelines for mannequin drawings, based on Cox & Rowlands (2000) and Rose, Jolley & Charmin (2012).

Feature of drawing	Description
Human figure	The more representational the drawing is of a human figure, the more highly it should be rated. Are all parts of the human form depicted? Including hands and feet? Are the limbs depicted as single lines or in a more representational way as zones?
Direction	The mannequin was set up running towards the right, the more accurately this is depicted the higher the drawing should be rated.
Overlap	The man's legs overlapped one another and the right arm overlapped the torso, the more accurately (e.g. using partial occlusion rather than transparency) this is depicted the higher the drawing should be rated.
Proportion	Consider how in proportion the limbs, head and torso are in comparison to the photograph of the model show over the page. A drawing which shows better proportion, in comparison to the model, should be rated more highly than one which is out of proportion.
Detail	Drawings which show the facial features, depicted in profile, should be rated more highly than those which show them from a front view or those which do not show them at all.
Movement	Drawings which clearly depict a man who is running, should be rated more highly than one in which it looks as if the man is walking, these in turn should be rated more highly than drawings where the man appears to be standing.

3.3.2 Results

Missing variables analysis was carried out and from the total data set there were four missing data points: two ratings for each type of drawing. This missing data was the result of one pupil being unable to be present due to illness, and two being called away during the drawing session and therefore being unable to complete one of the tasks. As the amount of missing data was so low and it occurred across both drawing tasks and school types, these values have been dealt with using listwise deletion in the ANOVAs and their follow up tests and pairwise deletion in the correlations between expressive and representational drawing.

The man drawing was rated for how representational it was of the model mannequin and the house drawing for how visually realistic it was. The mean and standard deviations, by school and age group are shown in Table 3.9. Example drawings are included in Appendix 3.

Table 3.9

Mean and standard deviations (in italics) for mannequin and house drawings by school type and age group.

	School										
	National Curriculum Taught Art					not taught art	Steiner				
Age	7	10	14	16	Overall	16	7	10	14	16	Overall
Mann- equin	1.43 <i>0.77</i>	2.33 <i>1.02</i>	4.07 <i>1.25</i>	4.22 <i>1.11</i>	3.01 <i>1.57</i>	4.63 <i>1.22</i>	1.85 <i>0.75</i>	3.58 <i>1.17</i>	4.93 <i>0.77</i>	5.25 <i>0.97</i>	3.90 <i>1.68</i>
House	2.45 <i>0.95</i>	3.53 <i>1.27</i>	4.00 <i>1.39</i>	4.13 <i>1.30</i>	3.52 <i>1.06</i>	3.88 <i>1.28</i>	2.35 <i>1.55</i>	3.95 <i>1.06</i>	4.74 <i>1.41</i>	5.07 <i>1.46</i>	4.02 <i>1.58</i>

All variables were checked for outliers, normal distribution and homogeneity of variance and all were found to meet the parametric assumptions for carrying out analysis of variance (Clark-Carter, 2010). The procedure for analysis of the mannequin and house drawings consisted of two-way between group ANOVAs (age x school), with significant interactions followed up with one-way ANOVAs in which age was held constant. For the age 16 group, as for the expressive drawings, an additional ANOVA was conducted to include the 16-year-olds who were not taught art at the National Curriculum schools as well as those that were, and the Steiner school pupils.. Adjustments to alpha were made as described for expressive drawings, so for the initial two-way ANOVAs this was .05, for one-way ANOVAs, in which age was held constant that alpha level was adjusted to .013 (.05/4) and for the Tukey tests at age 16 the family wise error rate was set at .05.

Mannequin drawings. Figure 3.6 depicts the mean and standard errors for the scores for the mannequin drawing, by school type and age group. It appears that Steiner pupils produce more visually realistic representational drawings of the mannequin than their National Curriculum peers.

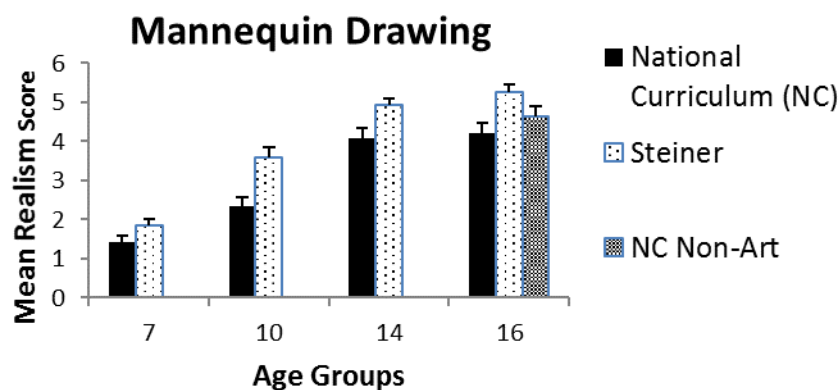


Figure 3.6. Means and standard errors for mannequin drawing scores by school type, and age group.

A two-way between group ANOVA was conducted to examine the effects of school (2) and age (4) on the overall representation score for the mannequin drawings. The two-way interaction between age and school was found to be not statistically significant $F(3, 152) = 1.242, p = .297, \eta^2 = .024$, however the main effect for school was significant $F(1, 152) = 31.737, p < .001, \eta^2 = .175$. This indicated that Steiner pupils had drawn significantly more representational mannequin drawings than the National Curriculum pupils. When the additional comparison was made at age 16 to include those National Curriculum pupils not receiving formal art tuition it was found that although the Steiner pupils produced more representational drawings than the National Curriculum pupils studying for a GCSE in art, $t(55) = -2.846, p = .016, d = -1.01$, there was no significant differences between either the Steiner and National Curriculum pupils not studying art $t(55) = -1.121, p = .506, d = -0.38$ and the National Curriculum pupils studying art compared with those who were not $t(55) = 1.739, p = .183, d = 0.59$.

To summarise, overall it was found that Steiner pupils drew more visually realistic representational pictures of the artists mannequin compared to National Curriculum pupils receiving art tuition, including at age 16. However, this Steiner superiority did not extend to the National Curriculum non art 16-year-olds.

House drawings. Figure 3.7 shows the mean and standard errors for the scores for the house drawing by school type and age group. At ages 10, 14 and 16 it appears that Steiner pupils produce more visually realistic representational house drawing than their National Curriculum counterparts, but at age 7 there is little evidence of between school differences.

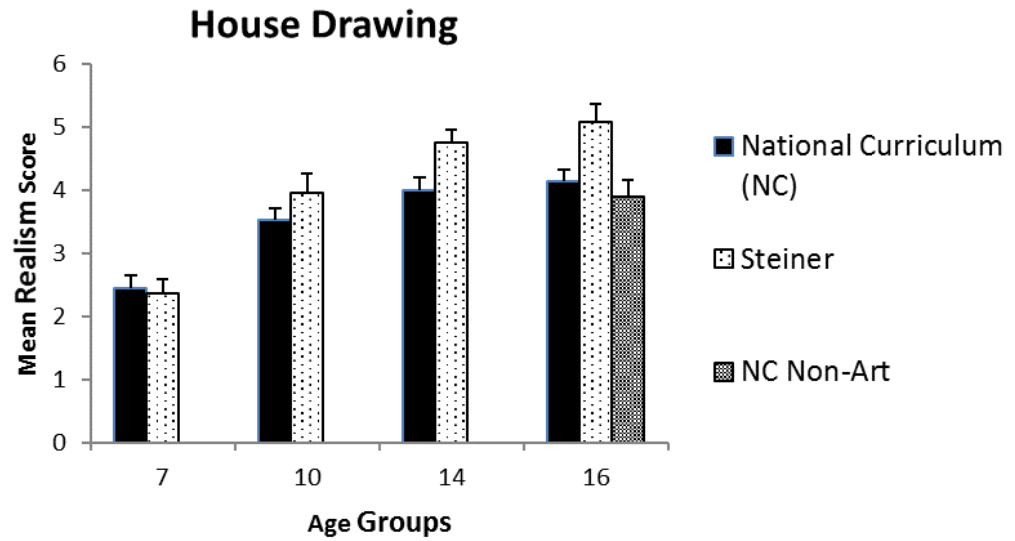


Figure 3.7. Means and standard errors for house drawing scores by school type and age group.

A two-way between group ANOVA was conducted to examine the effects of school (2) and age (4) on the overall representation score for the house drawings. The two-way interaction between age and school was found to be not statistically significant $F(3, 150) = 1.943, p = .125, \eta^2 = .037$, however there was a main effect for school $F(1, 150) = 36.885, p = .003, \eta^2 = .425$. This indicated that Steiner pupils had drawn houses rated as being more realistic compared to their National Curriculum schools peers. When the additional comparison was made at age 16, with those National Curriculum pupils not receiving formal art tuition, it was found that the Steiner pupils produced more representational drawings than the National Curriculum pupils *not* studying for an art GCSE $t(55) = -3.315, p = .004, d = -1.064$, as well as those studying for a GCSE in art $t(55) = -2.605, p = .031, d = -.917$. However there was no statistically significant difference between those NC pupils studying for a GCSE in art compared to those who were not $t(55) = .709, p = .759, d = -0.249$. To summarise, evidence suggests that Steiner school pupils produce more realistic house drawing than their National Curriculum

counterparts and that there is no difference in how realistic the house drawings of National Curriculum pupils studying for a GCSE in art are compared to those who are not.

The Relationship between Representational and Expressive Drawing Skill.

Pearson product moment correlations for each school type, with age in months partialled out, were conducted between scores for mean overall quality of expression (the means of the overall quality scores received for happy, sad and angry expressive drawings) and overall representation (the means of the representation scores received for the mannequin and house drawings). All three correlations showed a positive but relatively weak, non significant result: National Curriculum, $r(75) = .063, p = .584$; National Curriculum not taking Art and Design GCSE (age 16 only), $r(17) = .351; p = .140$, Steiner, $r(76) = .045, p = .695$.

3.3.3 Summary of Findings for Representational Drawings

Overall Steiner school pupils were identified as producing significantly more realistic mannequin and house drawings compared to National Curriculum pupils. No significant relationships were found for any school type between quality of expression and representation drawing ability. These findings will be fully discussed, along with those relating to the expressive and free drawings collected as part of this study, in Section 3.5.

3.4 The Development of Drawing Ability and Style in Free Drawings made by National Curriculum and Steiner school pupils

The focus of this Section will be the free drawing made by 180 pupils aged 7, 10, 14 and 16 years old from National Curriculum and Steiner schools. The pupils who made these drawings were the same as those who produced the expressive and representational drawings discussed in Sections 3.2 and 3.3. The free drawing was produced in response to the request from the researcher “to draw me a picture of

anything that you want; you can draw whatever you would like to". These free drawings were assessed for both drawing ability and style.

3.4.1 Scoring of the Drawings

The free drawings were analysed for overall drawing skill, colour use, size of the drawing and the extent to which a scene, compared to a single object, as depicted. While the first of these measures related to drawing ability the others related to potential stylistic differences. These were not assumed to be associated with drawing ability. Overall drawing skill was rated on a similar 7-point likert type scale to the other drawings (1 = very poor, 7 = very good). The two independent artist raters who had rated the expressive and representational drawings were asked to rate each free drawing for 'how good they thought the drawing was'. No further guidance was given about what might be considered 'good' it was left to the raters' own subjective judgements. Raters were encouraged to use all the points on the scale and to use the seven pile sorting method used for the other drawing tasks. All the drawings were rated independently by both raters. Raters were within 2-points of each other on their ratings for each drawing, 21% of the drawings were rated 2-points apart, 44% 1-point apart and 35% were given the same score. An intraclass correlation indicated overall a good level (Neuendorf, 2002) of agreement between raters, $ICC_{(A,k)} = .828$, 95% $CI [.769, .872]$. For the final analysis a mean of the two raters scores was calculated.

Colour use in the free drawings was recorded by the same two independent raters. This involved each rater recording which of the seven (black, brown, blue, green, yellow, red, pink) colours were present in each drawing. An initial examination of the drawings indicated that it was difficult to differentiate between the black and lead pencil, and also between the use of the red and the pink pencil. Due to the similarities of the marks made by these colours they were coded in two categories, rather than four, black/grey and red/pink. This reduced the total number of colour variables to six. There was a good level

of agreement on the total number of colours used, with raters being just 1 point apart on 10% of the drawing and having exact agreement on the remaining 90%. This was further confirmed through the intraclass correlation for exact agreement $ICC_{(A, k)} = .991$, 95% *CI* [.989, .994]. As well as use of individual colours raters were asked to record whether each drawing showed evidence, or not, of an attempt to combine two or more colours with the aim of creating a secondary or tertiary colour. Again good interrater reliability was found on this measure with agreement for 96% of the drawings and a Cohen's Kappa of .848, $p < .001$. In the few cases where a disagreement on the presence or absence of an individual colour, or the combining of colours, the drawing was viewed by the researcher and a decision made based on her inspection of the drawing.

As artistic experience was not necessary in coding the less subjective measures of the size of the free drawings or the extent to which a scene had been depicted these stylistic features were rated by the author and an independent rater. This independent rater was a 31-year-old male who is a professional web-site designer. This rater was blind to the school, age and gender of the drawer. The second rater was the author, a 29-year old female who studied art as part of her International Baccalaureate Diploma and has considerable experience of rating children's drawings while working as a research assistant. In order to decrease any effect of her knowledge of the age and school of the individual drawers the drawings were randomly ordered and rating did not commence until after six months had passed since the final drawing was collected. The size of each drawing was calculated by measuring the width and height (to the nearest millimetre), at the widest and tallest point, of the drawing and multiplying these figures together to ascertain the area. An intraclass correlation indicated a very good level of agreement (Neuendorf, 2002) between raters for the overall area of the drawings, $ICC_{(A, k)} = .990$, 95% *CI* [.987, .993]. A 7-point likert type scale was used to assess the extent to which a scene had been depicted. Raters were asked to rate each drawing for 'the extent to which a

scene, compared to a single object, was depicted', they were encouraged to use all the points on the scale and to use the seven pile sorting method used for the other drawing tasks. All the drawings were rated independently by both raters. Raters were within 2-points of each other on their ratings for each drawing, 6% of the drawings were rated 2-points apart, 31% 1-point apart and 63% were given the same score. Interrater reliability was calculated using intraclass correlation and a high level of agreement (Neuendorf, 2002) was found, $ICC_{(A, k)} = .948$, 95% $CI [.930, .961]$.

3.4.2 Results

Missing variables analysis was carried out and from the data set there was one individual for which no scores for the free drawing were obtained. This was due to the pupil being called away during the free drawing task and leaving their drawing incomplete. All continuous variables were checked for outliers, normal distribution and homogeneity of variance and all were found to meet the parametric assumptions for carrying out analysis of variance (Clark-Carter, 2010). Example drawings can be seen in Appendix 4.

Drawing Ability. Figure 3.9 shows the mean and standard errors for the drawing ability scores, broken down by school type and age group. It appears that at ages 7 and 14 Steiner pupils produce better (as rated on a 7-point scale by the artist raters) free drawings, however this difference is not reflected in the other age groups.

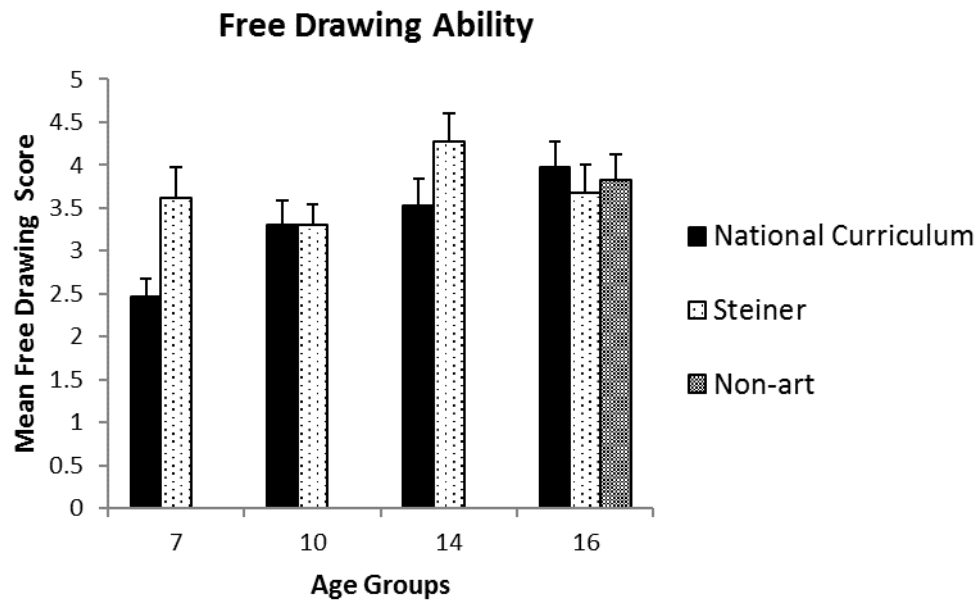


Figure 3.9. Means and standard errors for free drawing ability scores by school type and age group.

The procedure followed for analysing the free drawings was the same as that followed for the mannequin and house drawings, with adjustments being made to the alpha level of .05 at each stage of analysis. A two-way between group ANOVA was conducted to examine the effects of school (2) and age (4) on the drawing ability score given to the free drawings. The two-way interaction between age and school was found to be not statistically significant $F(3, 151) = 2.552, p = .058, \eta^2 = .048$. However, as it was approaching significance, recommendations by Clark-Carter (2010) were taken and follow up analysis was carried out. This follow up analysis indicated that there was a significant difference at age 7, with Steiner pupils having produced drawings which were more highly rated than their National Curriculum school peers, $F(1,38) = 7.955, p = .008, \eta^2 = .173$. For the older age groups no statistically significant differences were identified in overall drawing ability. This included at age 16 when the NC pupils not receiving art tuition were also included, $F(2,56) = 0.278, p = .758, \eta^2 = .01$.

Colour Use. The frequency with which each colour was used in the free drawing and the mean number of colours used by the different age groups from each school type can be seen in Table 3.10. From this table it appears that there are no clear between-school or age differences in which colours are used most frequently. However, when looking at overall mean colour use, it appears that the youngest Steiner pupils use more colours than their National Curriculum school counterparts but that this difference is not consistent among the older age groups.

A two-way between group ANOVA was conducted to assess the number of colours used within each age group at each school type. For this measurement the total number of colours not including black/grey was used. The two-way interaction between age and school was found to be not statistically significant $F(3, 151) = 2.579$, $p = .056$, $\eta^2 = .049$. However, as outlined above the closeness of this result to the alpha level justified the carrying out of simple effects. These indicated that at age 7 there was no significant difference detectable at the adjusted alpha level, $F(1, 38) = 4.082$, $p = .050$, $\eta^2 = .097$. However, this result does fall into the discussable region between the adjusted alpha level and the unadjusted level of $p = .05$ as outlined by Clark Carter (2010). Furthermore, the effect size was between medium and large (Cohen, 1988) and the power small at .55. To increase this power to .8 37 participants per school type would have been required. Overall this indicated that at age 7 there is some suggestion that Steiner pupils use more colours in their free drawing than their National Curriculum counterparts. However further research, with a slightly larger sample size, would be needed to confirm this. At age 10 there was no evidence of any school related differences in the number of colours used $F(1, 38) = 0.131$, $p = .719$, $\eta^2 = .003$. At age 14 the difference was also not significant, but as for the 7-year olds it was in the discussable region, $F(1, 38) = 5.410$, $p = .025$, $\eta^2 = .125$ suggesting that Steiner pupils may use more colours in their free drawings. This was supported by an effect

size approaching large (Cohen, 1988) and to raise the power to .8, 30 participants would be required. Finally at age 16 there was no significant difference detected in colour use between Steiner, National Curriculum GCSE art and non-art pupils, $F(2, 57) = 0.715, p = .494, \eta^2 = .025$.

Table 3.10

Frequency of individual colour use and mean and standard deviation of total number of colours used by school type and age group.

Age	School								
	National Curriculum				Steiner				
	Taught Art		not taught art		Taught Art		not taught art		
	7	10	14	16	16	7	10	14	16
n = 20 for each column									
Green	10	7	6	9	6	14	10	12	8
Blue	10	8	5	10	8	14	11	11	5
Yellow	11	7	5	9	8	16	6	10	6
Brown	11	9	3	7	6	13	12	10	7
Red/Pink	14	13	10	11	12	17	9	12	7
Grey/Black	20	20	19	19	19	20	20	19	20
Mean total colours used (not including Grey/Black)	2.74	2.2	1.45	2.42	2	3.7	2.4	2.75	1.65
Standard deviation of total colours used	1.63	1.88	1.61	2.27	1.81	1.17	1.6	1.92	2

To investigate the frequency with which children from Steiner and National Curriculum schools combined colours to create secondary or tertiary colours a Chi Squared test of contingencies was used. As can be seen from Table 3.11, the frequency with which colour combinations were observed was not particularly high, nonetheless it appears that Steiner pupils used colour combining twice as frequently as their National Curriculum school counterparts. Results of the Chi Squared test indicated

that colours were combined significantly more frequently among the Steiner compared to National Curriculum school pupils, $X^2(1) = 3.809, p = .040, w = .155$. The results have not been analysed by age group as the expected frequencies per cell were too low to carry out a Chi Squared test.

Table 3.11

Frequency table showing the use of colour combination among pupils from the two school types.

	Colour Combining	
	Absence	Presence
National Curriculum	69	10
Steiner	60	20

Drawing size. The means and standard deviations for drawing size, by school and age group, measurements can be seen in Table 3.12. It can be seen that across all age groups Steiner pupils use a larger area of the page in their drawings compared to National Curriculum pupils. A two-way between subjects ANOVA was carried to investigate the size of the free drawings produced by National Curriculum and Steiner pupils from the four different age groups. The two-way interaction (school x age) was not significant, $F(3, 151) = 2.252, p = .085, \eta^2 = .043$. However, there was a significant main effect of school indicating that Steiner pupils' drawings were larger than those of their National Curriculum school counterparts $F(1, 151) = 14.977, p < .001, \eta^2 = .090$. Finally, when just looking at the 16-year-olds there was no significant difference detected in the size of the free drawings of Steiner, National Curriculum GCSE art and non-art pupils, $F(2, 57) = 1.282, p = .285, \eta^2 = .043$.

Table 3.12

Mean and standard deviation of the size of free drawings (in millimetres) by school type and age group.

		School										
		National Curriculum					Not taught art	Steiner				
		Taught Art						16	7	10	14	16
		7	10	14	16	Overall	16	7	10	14	16	Overall
Area	Mean	34203	32117	40613	41406	37085	49485	56805	43451	42839	49326	48105
	Std. dev	22014	17805	18324	18066	19574	16625	15345	16623	20191	16739	16625

Scene based. Although the size measurement provides evidence for the amount of the page used in the drawing it does not indicate whether one item was drawn very large or whether the page was filled with numerous smaller items composed to construct a scene. Insight into between school and between-age group differences in this can be gained from the rating of how scene- based each drawing was. The means and standard deviations, by age group and school type, are shown in Table 3.13. It can be seen that across all age groups Steiner pupils depict more scene-based drawings than their National Curriculum counterparts. Statistically the pattern of findings for the extent to which drawings depicted a scene compared to a single object followed a very similar pattern to those found for the size of the drawing. The two-way interaction from the ANOVA was not found to be significant $F(3, 151) = 0.789, p = .502, \eta^2 = .015$, but there was a significant main effect of school identified, $F(1, 151) = 26.724, p = .001, \eta^2 = .067$. This indicated that Steiner pupils produced drawings depicting more scene-based compositions compared to their National Curriculum counterparts. Similar to the area data there was also no difference found among the 16-year-old National Curriculum pupils who were taught art compared to those that were not or the Steiner school pupils, $F(2, 57) = 2.10, p = .811, \eta^2 = .007$.

Table 3.13

Mean and standard deviation for the scene rating by school type and age group.

		School										
		National Curriculum					Not taught art	Steiner				
		Taught Art						16	7	10	14	16
7	10	14	16	Overall	16	7	10	14	16	Overall		
Scene	Mean	2.89	2.55	2.33	3.3	2.77	3.13	3.97	3.45	3.45	3.48	3.59
Rating	Std. dev	1.47	1.56	1.13	1.89	1.55	1.54	1.29	1.42	1.93	1.67	1.58

3.4.3 Summary of Findings from the Free Drawings

For the free drawings it was found that the 7-year-old Steiner pupils produced drawings which were more highly rated for ability than those of their National Curriculum school peers. However, no significant between-school differences in drawing ability were identified for any of the older age groups. Consequently, overall drawing ability on the free drawing differed between school types only among the youngest age group of children. Nonetheless when measures of drawing style were considered there was more evidence of between-school differences. When colour use in the drawings were examined there was evidence found suggesting that Steiner pupils may use more colours and combine colours more frequently than their National Curriculum school counterparts. Furthermore, when the size and content of the drawings were investigated it was found that Steiner pupils used more of the page and tended to produce more scene based free drawings than National Curriculum school pupils. However, no differences in drawing style were identified between those National Curriculum pupils who had opted to take an art GCSE and those that had not. These findings will be fully discussed, along with those relating to the expressive and representational drawings collected as part of this study, in Section 3.5.

3.5 Discussion of Drawing Ability in Expressive, Representational and Free Drawings made by National Curriculum and Steiner School Pupils

In this Section the results of the drawing study presented in this Chapter are discussed. These findings related to the happy, sad and angry expressive drawings, the house and mannequin representational drawings and the free drawing produced by pupils aged 6- to 16- years-old attending National Curriculum and Steiner schools. The discussion of the findings is developed over three parts. Firstly the findings are summarised and the extent to which these supported each of the predictions considered. Secondly the findings are discussed in the light of previous research and finally an overall evaluation of the evidence presented for the development of drawing ability among pupils from National Curriculum and Steiner schools is developed.

3.5.1 Summary of Findings

Hypothesis 1. Steiner pupils would produce drawings with higher overall quality of expression and more advanced use of expressive line, colour and composition compared to their National Curriculum school counterparts. This was not supported as no consistent between school differences were identified in the overall quality of expression or use of line, colour or composition to communicate mood.

Hypothesis 2. Representational drawings made by the Steiner school pupils in the two oldest age groups (14- and 16-year-olds) would be more highly rated than those of their National Curriculum counterparts. This was supported as the Steiner pupils representational drawings of a house from memory and of a man running from a 3D-model were rated as more realistic and accurate than those of their National Curriculum counterpart. This between school difference was consistent across all four age groups, therefore younger as well as older Steiner school pupils appear to have more advanced representational drawing skills compared to their National Curriculum school counterparts.

Hypothesis 3. The relationship between representational and expressive drawing would be positive for pupils of both school types, but that this would be strongest among Steiner pupils compared to National Curriculum pupils. This was not supported as correlations indicated only very weak relationships between overall expressive and representational drawing ability for both Steiner and National Curriculum school pupils.

Hypothesis 4. In the free drawing it was expected that the drawings made by the Steiner pupils would be rated as ‘better’, more scene based, to fill more of the page and to include greater number of colours and combined colours compared to the drawings made by the National Curriculum pupils. This was partially supported as although few between-school differences were found in drawing ability, Steiner pupils produced more scene-based drawings, filled more of the page and combined colours more frequently than their National Curriculum counterparts. Additionally, there was some indication that Steiner pupils may have used more colours in their free drawing. Although this result was not significant at the adjusted alpha level the effect size was between medium and large suggesting with increased power a significant result would be found.

Hypothesis 5. Among the 16-year-old pupils it was predicted that differences would be found among those National Curriculum pupils taking an art GCSE and those not taking an art GCSE. This was not supported as there was no evidence found that 16-year-old pupils taking GCSE Art and Design had more advanced drawing skills than those not taking this GCSE subject.

3.5.2 Discussion of the Findings

The findings for expressive drawings did not reflect the superior expressive use of formal properties and overall quality of expression found among Steiner pupils in Rose, Jolley and Charmin’s (2012) study. The tasks used (happy, sad, and angry

drawing), the instructions given, the amount of time per drawing and the range of coloured pencils provided were the same in these two studies. Therefore it seems unlikely that the choice of task, materials or the instructions given to the pupils can explain the inconsistencies in findings between this study and those of Rose et al. It is also unlikely that differences in the results between the two studies can be attributed to any variability in the rating criteria or the raters. The same artist raters were used in both studies and the guidelines and criteria they were provided with were also the same. In comparison to the Rose et al. study the matching of children was improved on in the current study, with schools being matched on the geodemographic profiles of their catchment area and young pupil's comprehension vocabulary checked. Additionally, higher interrater reliability indices were obtained for the rating of the drawings in the current study. Both these factors suggest increased reliability in the findings. Consequently, it may be that the more advanced expressive drawing ability found among the Steiner pupils in the early study was actually overestimated. Furthermore, it is worth noting that these new findings are not wholly contradictory with previous findings as Rose et al. did not find support for Steiner pupils' superiority in expressive drawing ability on all measures. For instance, no differences were found among drawings depicting a sad mood, among the 5-year –old pupils or in the expressive use of colour. Therefore, previous evidence has not identified consistent differences in expressive drawing ability.

The absence of significant between school differences is surprising considering the differences stipulated within the curricula. Within the Steiner curriculum there is considerable emphasis on the value of drawing as an expressive activity, with belief that it is through the creation of artistic works the child becomes more aware of sensations, feelings, and thoughts (Easton, 1997). In contrast, although the National Curriculum aims to foster development in both expressive and representational

drawing skills there are reports of many primary teachers tending to focus on the development of representational skills (Burkitt, Jolley & Rose 2010) with less emphasis on the development of expressive drawing. One potential explanation for the absence of significant between-school differences in expressive drawing ability is that what actually occurs within the classrooms at the two school types is potentially not as dissimilar as the two curricula would suggest. Due to the considerable freedom that Steiner pupils are afforded in their drawing, the beliefs and values within Steiner schools may not have a direct influence on the actual support for drawing received by the Steiner pupil. Consequently although expressive drawing is valued the skills involved in producing expressive drawing may not be specifically taught or nurtured among these pupils. Therefore, the similarities between the expressive drawing ability of the younger pupils could be attribute to possible lack of support for the development of expressive drawing skill. Furthermore, among the older pupils there could also be considerable similarity in the support received for expressive drawing ability as pupils attending both National Curriculum and Steiner schools are now taught by art specialists. While National Curriculum pupils are continuing to follow a curriculum which focuses on the development of both expressive and representational drawing skills, Steiner pupils are being introduced to technical drawing skills but these are embedded within a curriculum which encourages expression. Consequently the experiences of support for expressive drawing pupils at all ages may be more similar in National Curriculum and Steiner schools than initially thought.

One area in which there is some evidence that Steiner pupils may have superior ability is in their expressive use of colour. Tentative evidence for this was identified in the current study which suggested that at age 14, and possibly age 7 too, Steiner pupils used colour more expressively in their happy drawings. While this is not consistent with Rose et al.'s (2012) evidence it does seem to reflect the previous

findings of Cox and Rowlands' (2000) for greater and 'better' colour use by Steiner pupils. Nonetheless, it must be noted that Cox and Rowlands' were not specific about what constituted 'better' colour use, and their tasks were not aimed at measuring expressive drawing ability. However, the current findings for Steiner superiority in the expressive use of colour and also for evidence of more colours being used, and combined, in free drawings does seem to support Cox and Rowlands' finding for superior colour use among Steiner school pupils. It makes sense that this is an area in which differences have been identified as within the Steiner Curriculum there is much emphasis on developing children's understanding of colour, with children being encouraged to be aware of, and develop, their feelings for colours from a young age (Jünemann & Weitmann, 1977).

The representational drawing results seem to indicate a consistent and positive impact of Steiner education on representational drawing ability. This superior representational drawing ability of Steiner school pupils supports previous findings of Cox and Rowlands'(2000), who found that their sample of 5- to 7- year-old Steiner pupils (mean age 7:2) had superior representational drawing ability. This was also supported by Rose et al.'s (2012) finding that at age 7 Steiner school pupils had the most advanced representational drawing abilities. However, Rose et al.'s findings for the other age groups they investigated did not portray such a consistent picture though. At age 5 they found that Steiner pupils had the weakest representational drawing abilities and at age 9 that there was no difference between their drawing ability and that of their National Curriculum school counterparts. Although the current study did not include 5-year-olds, by the inclusion of a wider age range, that included older age groups, the present study does report a more comprehensive and consistent picture of how representational drawing ability tends to be more advanced among 7- to 16-year-old Steiner compared to National Curriculum school pupils. Considering the

curriculum in these two school types, this finding seems somewhat surprising. The National Curriculum for Art and Design aims to develop children's skills in both representational and expressive drawing whereas in Steiner schools the emphasis, up until approximately 12 years of age, is on expressive drawing, focusing on creativity and imagination rather than the accuracy, or visual likeness. Furthermore, when the Schemes of Work (DfEE/QCA, 2011), which support the National Curriculum for Art and Design, are explored, a bias towards representational tasks is evident (see Chapter 1 for further discussion of this). So although the younger Steiner school pupils are not taught representational drawing techniques they still seem to outperform their National Curriculum counterparts, who according to their curriculum are being introduced to these skills.

There are a number of potential explanations for this apparently superior representational drawing ability among Steiner children. It could be that the emphasis within Steiner schools on learning through doing and the approach to problem solving, a skill linked to representational drawing (Freeman, 1980; Golomb, 2004), may foster development in representational drawing skill without these actually being taught per se. In particular, young children in Steiner schools are taught form drawing. This involves the accurate copying of geometric shapes and may therefore contribute to the development of skills such as accurate observation and hand eye coordination which are required for representational drawing. Another factor potentially contributing to Steiner pupils' more advanced ability in representational drawing is the amount of time dedicated to drawing in Steiner schools. Literacy skills are not introduced until the pupils are aged seven and children are encouraged instead to record their experiences and new understanding of the world through pictures (Carlgren, 2008; Patzlaff, Sassmannshausen, 2012; Stockmeyer, 1991). Consequently children may become accustomed to spending considerable time drawing and also to the values

placed by teachers on the importance of drawing as a means of developing understanding of new topic (Nobel, 1991). Thus pupils may have more opportunity to practice and develop representational drawing skills for themselves. The importance of this for drawing development is supported by Wright's (2010) argument that focusing too strongly and too soon on a literacy motivated curriculum distracts children from developing their ability to depict using pictorial signs. To develop this area further observational work would provide direct insight into classroom practices. This would provide evidence of the amount of time spent drawing and also the approaches that teachers took to supporting children's developing representational and expressive drawing skills.

The findings from the free drawings reflect those of Cox and Rowlands (2000), as they too found that that 7-year-old Steiner school pupils tended to produce free drawing which were more highly rated than those of their National Curriculum school counterparts. However, this finding was not reflected in the older age groups included in the current study, where no difference in overall drawing ability was found in the free drawings of Steiner and National Curriculum pupils. A potential explanation for why the most notable difference is among the 7-year-olds is emphasis on literacy development. The National Curriculum introduces writing and reading at age 5, and from this point onwards considerable emphasis is placed on the practice and development of these skills. Steiner school pupils are only just (at age 7) being introduced to the letters of the alphabet with much time still set aside for drawing. Consequently, the superiority of the free drawings of the 7-year-old Steiner pupils may be explained by the emphasis on drawing and time set aside for drawing without pressure on developing literacy skills.

There were some suggestions that Steiner pupils may use a greater number of colours in their free drawings at age 7 and 14 years. Although, the effect size for this

was between medium and large (according to Cohen's 1988 guidelines) this finding was not significant at the adjusted alpha level. To improve power and reduce the possibility of a type 2 error being made 37 participants, per age group per school type, would be required. In the current study the likelihood of identifying a significant difference in the number of colours used was somewhat decreased as due to problems differentiating the marks made by the red/pink and black/lead pencil leading to these colours not being counted as separate in the analysis. Consequently, it could be interpreted that this finding adds some support to Cox and Rowlands' (2000) evidence for 7-year-old Steiner pupils using a greater number of colours in their drawings compared to their National Curriculum counterparts. Additionally, when the frequency with which pupils combine colours to create additional secondary or tertiary colours was examined it was found that Steiner pupils tended to do this more often than their National Curriculum counterparts. This would reflect the considerable focus on colours evident throughout the Steiner Curriculum, with children being encouraged to be aware of, and develop, their feelings for colours from a young age (Jünemann & Weitmann, 1977).

Evidence from the current study supports anecdotal comments from both Cox and Rowlands (2000) and Rose et al. (2012) regarding the tendency for Steiner pupils to use the whole of the page in their drawing. This is something which is encouraged even among the youngest Steiner school pupils (Glas, 2010; Nicol & Taplin, 2012). Similarly, it was found that the drawings of Steiner pupils tended to be more scene based compared to their National Curriculum school counterparts. This potentially reflects the type of encouragement that pupils receive from both teachers and parents in their drawings and also of the increased time available for developing more extensive drawings in Steiner compared with National Curriculum schools.

It is somewhat surprising that no differences were identified between the 16-year-olds taking GCSE art and Design and those who were not. Potential explanations of this finding could be that it may be due to timetabling issues or peer pressure that some pupils opt not to take Art and Design at GCSE rather than their actual ability or enjoyment of the subject. Consequently they may continue to practice and seek out support for their drawing skills in their own free time. Alternatively, the representational drawing abilities of these older pupils may actually differ but the drawing tasks and the ratings used in their study may not have been sufficiently sophisticated to identify differences in drawing ability among the oldest pupils. Drawing a house and a copy of the artist's mannequin are relatively simple representational drawing tasks, which was necessary to insure suitability for the younger pupils in this study. However, use of more challenging subject matter, such as a man riding a horse or a man in a boat, may have identified differences among the representational drawing abilities of these oldest pupils.

No significant relationships were identified between expressive and representational drawing ability for either National Curriculum or Steiner school pupils. This seems to suggest that these skills do not develop at the same rate and that pupils who are good at one are not necessarily good at the other. These findings do not support those from previous research. However, this previous evidence was itself rather weak and tentative as many of the correlations were not strong enough to reach significance (Jolley et al., 2004; Picard et al., 2007). This body of evidence seems to suggest that these skills may not be as closely related as might be assumed. However, the findings also do not support the views of Gardner (1980 & 2006) or Davis' (1997a & 1997b) that children's developing ability in representational drawing during mid-childhood might stifle their expressive drawing.

The amount of time devoted to drawing within the Steiner schools has been commented on in the context of the opportunity this provides for the pupils to develop their drawing skills. It is also worth considering that this difference in the curricula may have caused children from the two school types to approach the drawing tasks in a slightly different way. For all the drawings in this study a time limit was imposed by the experimenter of ten minutes per drawing. Several of the Steiner pupils made anecdotal comments about this not being very long and therefore it being necessary to do a 'quick' drawing. These sorts of comments did not seem to be made by the National Curriculum pupils. Consequently the time limit may have particularly influenced the Steiner pupils in their choice of what to depict and how to depict it. This could have been influential to the content of the expressive and free drawings and therefore could potentially have led to underestimation of their abilities in these tasks. The time limit was probably much less influential in the representational drawing tasks as the content matter was defined by the experimenter and was relatively simple. Future research could take this into account by allowing children as long as they required to complete each drawing task, with the time taken being recorded. This could then be analysed to see if Steiner pupils would indeed spend longer on the drawings compared to their National Curriculum school peers. Furthermore, through recording the time taken data would be provided which could be used in an ANCOVA to establish the extent to which time taken may have influenced drawing ability and if this may explain any differences identified between school types.

Due to the naturalistic nature of this research it is clearly not possible to randomly allocate students to the experimental groups (the school types). Consequently, as with much field research, the effect of potentially confounding variables must be acknowledged. In particular the values and attitudes of the children's parents and their home environment may differ between pupils attending

the two school types. This is especially relevant to this study as the arts rich curriculum of the Steiner schools may attract parents who value the arts more greatly, potentially influencing the activities they encourage their child to engage with as well as the art materials and resources that they provide for them. This is addressed in a large scale survey study reported in Part 2 of this thesis which investigates the attitudes and practice of Steiner and National Curriculum school pupils, parents and teachers. Insight is provided from the data into the nature and the magnitude of potential differences in home environment and parental support relevant to drawing.

A further potential bias which could be influencing the findings is that schools were asked to volunteer to assist with this research project and consequently participating children may have been at schools which value the arts more highly. This consideration is particularly salient for the National Curriculum schools as attitudes towards the arts might be more variable in these schools compared to Steiner schools where high regard for the arts is core to the pedagogy. It could be that those National Curriculum schools that assisted with this project may be those which place more emphasis on the arts, integrate more drawing activities throughout the curriculum, offer more arts based extra curricula activities and have more abundant art materials. Evidence on this is hard to gather as little mention of art teaching is made in Ofsted reports. Consequently, we have no means of finding out what an individual schools attitudes and practices are regarding the delivery of the Art and Design Curriculum. However, the recent Ofsted report into the teaching of art and design in National Curriculum schools did find evidence for the quality of teaching and achievement in the arts varying considerably between schools (Ofsted, 2009). This may reflect the lack of direction that is given in the National Curriculum for Art and Design, and the considerable freedom given to teachers to develop their own programme of study. Although some teachers will thrive on this freedom, others may

lack the confidence and the skill to inspire and foster development of drawing skill. This is supported further by findings Ofsted's (2009) conclusion that the teachers own artistic competence, whether acquired through their own education, formal training or simply from an appreciation of art was a key contributor to success. In the most effective lessons, teachers used their examples of their own work, or provided confident demonstrations. Unconvincing teachers on the other hand did little to win the confidence of their pupils, admitting 'I can't draw' (p. 13) or showing a lack of inquisitiveness towards the work of artists or of talented pupils. If it were the case that the National Curriculum teachers who volunteered to assist with this study were more artistically competent and that this was reflected in the quality of their teaching and their pupils' achievement then this study could actually be underestimating the differences in the drawing abilities of Steiner pupils compared to those attending National Curriculum schools.

Another question raised by the findings which draw attention to the variability of teaching quality and importantly teachers' confidence in delivering the National Curriculum for Art and Design (e.g. Ofsted, 2009) is the extent to which teacher confidence in the arts might account for differences in drawing ability between pupils of Steiner and National Curriculum schools. The training of Steiner compared to National Curriculum teachers differs in this respect. Steiner teachers are given training in how to teach art as well as being taught and assessed on the development of their own artistic activities⁴. The goal of this is not to create teachers who can produce end products of great artistic value, instead the aim is to create teachers who are

⁴ This observation was based on examination of the Module descriptors available for the Plymouth University BA in Steiner Education in 2009. This was the only University accredited Steiner Waldorf courses available in the UK. However this course was withdrawn in 2009 and no similar course is currently offered by any university. In order for new Steiner teachers to become trained they have to take part in private courses. Consulting the websites (<http://www.waldorfrtraining.org.uk/>; <http://www.westt.org.uk/>; <http://www.yorksteinerschool.org/wp-content/uploads/2012/05/NESTT-2012.pdf>) of these courses confirms the similarity of their content to that of the Plymouth course in terms of artistic training and support for training teachers.

confident in their own artistry and ability to demonstrate to their pupils. On the other hand National Curriculum school teachers receive very little training in how to teach art and little opportunity to develop their own skills either through their initial teacher training or through further in-service drawing or professional development courses. It is possible that this lack of training and possible lack of own art confidence may affect their ability to support the development of representational drawing skills in particular. Consequently although the National Curriculum advocates the teaching of representational drawing from a young age, the instruction that pupils receive may not be effective and consequently this could be an explanation for why these pupils had less developed representational drawing skills than their Steiner counterparts. In order to understand to what extent it is this confidence and artistry of the teacher, rather than the content of the curriculum that is defining the school drawing experiences, future research could seek to consider the level of artistic competence of teachers within National Curriculum schools and the potential influence of this on children's drawing ability, and how this might compare to Steiner schools. For instance the drawing ability of National Curriculum pupils taught art by an art specialist compared to those taught by their general year teacher could be compared to abilities of Steiner school pupils.

3.6 Summary of Drawing Study

The evidence presented suggests that Steiner pupils have superior representational drawing abilities and that there are some stylistic differences in their free drawings compared to their National Curriculum counterparts. However, no difference was found in their expressive drawing ability or the overall drawing ability evident within their free drawing. Considering these findings and also those of Cox

and Rowlands (2000) Rose et al. (2012) it seems that Steiner education may have a positive impact on children's drawing ability, however differences in specific skills, and at which age groups these are found, are not consistent across studies. This in part reflects the challenges of carrying out research in this area; particularly as there are so many potential school and home influences on children's drawing ability. However, it also seems that these differences may not be as considerable as the different curricula might lead us to believe. In order to further understand how the Steiner and National curricula facilitate the development of drawing ability and to gain more insight into how these curricula shape the drawing experiences of pupils, research needs to consider more closely the attitudes and practices of pupils, their parents and teachers in the two school types. Both Cox and Rowlands (2000) and Rose et al. (2012) have commented on potential parental differences that could account for parents choosing to send their child to a Steiner school and also their child's more advanced drawing abilities. Surveying the attitudes and practices of parents would identify whether there really is more value for, and support of, the arts among Steiner compared to National Curriculum parents. Additionally through gathering the views of children, their teachers and their parents the relationships between these could be investigated. For instance, this could provide insight into how the support that children receive for drawing influences their own values, confidence in their own drawing ability, their enjoyment of drawing and the amount of time that they spend drawing.

CHAPTER 4: CHILDREN'S CREATIVE INTENTIONS: WHERE DO THE IDEAS FOR THE DRAWING COME FROM?

The study of children's drawing has often focused on the end product, the drawings themselves. This Chapter argues that these should not be considered in isolation and instead should be considered along with the child's narrative about

their drawing, Qualitative data, collected as part of the larger scale study into drawing ability reported in the previous Chapters, is the focus of this Chapter. This data, collected through semi-structured interviews from 59 National Curriculum and Steiner school pupils (age 6 to 16 years) was used to construct themes representing the various sources of inspiration for children's drawings. These themes are described and to conclude this Chapter the findings are discussed.

4.1 Introduction

Assessment of children's drawing abilities has tended to focus on the end products, the actual drawings themselves (for reviews see Cox, 2005; Jolley, 2010 and Chapter 2 of this thesis). However, to fully understand children's drawings one has to consider the processes through which they are made. This process of creating the drawing is a complex and difficult one for the child and involves a range of skills (Cohen & Bennet, 1997; Freeman, 1970). This could impact upon assessment of expressive and creative drawing abilities as well as representational drawing ability. For instance, the child may have had a very creative idea, maybe based on fantasy, a desire to express a feeling or to depict objects from life or memory, but due to the complexities of the drawing process the forms in their drawings may not be easily identifiable to others. When individuals are assessing the drawing and they cannot recognise the forms depicted they will struggle to interpret the drawing. This reliance on being able to interpret the forms depicted in the end product means that children's expressive and creative drawing ability may be underestimated due to a deficit in representational drawing skill. This is a limitation of much of the emerging literature considering the development of children's expressive drawing ability which often relies on independent raters assessing the end products, i.e. the drawing themselves, with no knowledge of what the child may have intended to depict.

Further support for the view that a child's drawing should not be interpreted in isolation comes from Wright (2010). She argues that children's drawings, along with their spontaneous running commentary and non-verbal communication make up a single, multimodal communication. Consequently the meaning of the drawing should be understood by taking the different communicative modes into consideration. This view is also shared by others, indeed Coates (2002) and Kress (1997) both claim that the lack of attention to the utterances made by children while they draw is detrimental to our understanding of children's drawing development. Wright proposes that the presence of an interlocutor, to prompt and encourage verbalisations, as the child is drawing will externalise the usually internal narrative that accompanies a drawing. This interlocutor primarily assumes the role of an audience, but also interacts, making comments and asking questions, which may facilitate and protract the child's experience of drawing (Potter & Edens, 2001). Strategies, advocated by Wright, for use by interlocutors' include clarification (e.g. can you give me an example of that?), mirroring or reflective prop (e.g. what you seem to be saying is.....'), nudging props (e.g. what happened then?) and out loud thinking (e.g. I wonder about....).

It has been suggested that interaction and dialog, such as advocated by Wright (2010), will sustain and motivate the child's drawing experience (Potter & Edens, 2001). However, others have claimed that particularly young children's drawing is personal to them and not intended to be communicated or shared with others (Mathews, 1984). This suggests that a researcher taking on the role of an interlocutor may actually hinder the child's drawing. Taking both these positions into consideration Coates (2002) focused her observations and analysis on the spontaneous free talk that children produce while drawing. Evidence is reported from small groups of children drawing and spontaneously talking together. She describes how some children told stories relating to their pictures while others provided a more descriptive

account of what they had drawn. Coates' explanation for this distinction in narrative focus was that teachers have different expectations and use of drawings in their classrooms. Egan (1995) identifies similar narrative patterns among 4- to -5-year-old children's unprompted talk made while producing free drawings. She recounts some children telling stories, some of which are very rich in detail and included elements and detail not depicted, whereas others identified content in their drawings (e.g. "this is my mum"; "this is her nose" Egan, 1995, p. 12.). Egan suggests that these differences are the result of the young children approaching the task in different ways. However, she argues that further research into this is needed as it is unclear to what extent these differences represent a preferred style for the individual, or are task or situation dependant.

It has been found that when children are asked retrospectively about their own drawings they may struggle to interpret them (Bloom & Markson, 1998). This is further evidence for the benefit of talking to children, or recording their free talk, while they are engaged in drawing. Furthermore, as children's intention for the content of their drawing may alter and adapt as they draw (S. Cox, 2005) talking to them during the drawing process will provide insight into the development of these intentions. This adaption and development of creative intentions during the drawing process is related to processes involved in problem solving (Freeman, Eiser, Sayers, 1977). Support for this link between problem solving and drawing is evident when the skills required for drawing are compared to those required for problem solving; representing the problem, planning a solution, execution, and evaluation (Zelazo, Carter, Reznick & Frye, 1997). Further links can be seen when the role of executive functions in both problem solving and drawing are considered. These are higher order cognitive functions that enable individuals to plan, initiate, carry out goal directive behaviour in an organised way (Hughes, Graham & Grayson, 2004). Zelazo, et al.

(1997) suggest that executive functions are required to shift between stages of problem solving. This shifting between stages of problem solving is particularly relevant to drawing as an artist decides what they are going to draw. Then they start their depiction and the initial creative idea of what to draw may then be modified as the artist has new ideas, or experience challenges in their drawing. Consequently, it is argued that drawings are a product of creative ideas, technique, problem solving and executive functioning. For a young child, still developing executive functioning, being able to recount their intentions, and how these may have been modified during the process of carrying out and evaluating their drawing might be quite challenging. This is further evidence of the importance of talking to children throughout the drawing process, even during the planning phase before mark making begins.

Talking to children before and during the drawing process will extend current understanding of children's drawing as although there has been interest in the content of children's drawings (e.g. Sully, 2000; Lark-Horovitz, Lewis, & Luca, 1967) there has been minimal attention to where the ideas for the subject matter came from. Anecdotally Spencer (1854/1929) suggested that the subject matter of young children's drawings is primarily based on their immediate environment, especially significant people in their lives and objects that they see every day. However, there has been little empirical evidence to support this until recently. From an extensive data set of 800 drawings (and accompanying audio tapes) Coates and Coates (2011) report three themes which were the most prevalent among young children between the ages of three and seven. These three themes were first hand experiences, sources from the imagination, and heroes/subjects from the media. These will now be discussed in more detail.

Many of the drawings, and the accompanying narratives collected by Coates and Coates (2011) originated from memories of events experienced at first hand.

Coates and Coates commented on how these narratives highlighted the child's own understanding of the object or event. When the narrative indicated that the memories and experiences depicted were being added to, with information gained from secondary sources these were representative of the second theme, sources of imagination. For example, one child was talking about her recollection of coming home and seeing a rainbow over her house, but then added to the drawing, and the narrative, a fantasy element as she described herself and her father finding treasure at the top of the rainbow. Other drawings and narratives in this theme represented drawings based on an interest which then developed into an imaginative representation. For example, a love of dogs and the drawing of a dog which then developed into the opening of a dogs home by the child's family. The final theme discussed by Coates and Coates is heroes and subjects from the media. In this theme many of the stories and their accompanying narratives reflect characters from the media acting out invented or remembered story lines.

Coates and Coates' (2011) report focuses on the description of a few example drawings and narratives taken from the much larger sample. There are no comments made about how the sources of ideas of what to draw may alter as children get older and indeed as the sample only included relatively young children it is possible that new themes may emerge if older children are considered. A further limitation of Coates and Coates (2011) methodology was that the drawings and narratives were collected from small groups of children, who talked together as they drew. This context in which the data was collected may have encouraged collaboration and sharing of ideas between the children, influencing both their drawings and their narrative. Support for this suggestion comes from Thompson's (1999) and Wilson and Wilson's (1977) observations of children drawing and talking together affecting the content of their drawings as they clarify and extend concepts, or compete to out-do

one another. Indeed Coates and Coates comment themselves about the interaction and dialogue between the children as they drew influencing the drawing process, possibly encouraging them to include more fantasy elements as they compete to try and out-do one another.

As there is a paucity of evidence about where children get their ideas for their drawings from considering the sources of children's creative ideas in other activities is also relevant. For instance, literature about children's story telling and where the ideas for their stories originate may provide us with some insight. Geist and Aldridge (2002) analysed stories invented by children from Kindergarten (age 5- to 6- years-old) up to third grade (age 8- to 9- years-old). Using a form of content analysis, but without reporting any quantitative data, they concluded that the youngest children (5- to 6-year-olds) tended to base their stories on those they had previously heard. With the main content of their stories being based around ideas of fantasy, for example, tales of evil witches eating children. In comparison, first graders (6- to 7- year-olds) told realistic stories based on familiar surroundings. Similarly, second graders (7- to 8- year-olds) also tended to tell realistic stories but these were based on imagination, as although the content and actions were realistic they were not situations that the child would have experienced, for example, tales of kings and queens. Third graders (8 to 9-year-olds) tended to base their stories on personal experiences and their stories were personal narratives retelling events that had happened to them or someone that they knew. These findings seem to suggest that the 5- to 6- year-old children tended to draw on sources that were in a similar medium to that which they were inventing. There then seemed to be a move towards basing stories on immediate surroundings and experiences, either with a realistic focus or developed to include an element of fantasy. It is possible that the ideas that children have for drawing pictures might follow a similar age-related trajectory, with the youngest children using images that

they have previously seen as models for their drawings and older children basing their drawings on their own experiences in the real world.

The influence of existing graphical models on the drawings that children produce has been investigated by Wilson and Wilson (1977). Wilson and Wilson challenged the often held western belief that children's drawings are best when they are the child's own inventions, uninfluenced by adult interference and unaffected by a child's tendency to copy or imitate the images they see round them (Lowenfeld, 1957; Viola, 1936). Instead they argued that most children's drawings are based on already existing graphical images. This argument was supported through interview data that they collected from 147 high school and college pupils. During these interviews they asked these pupils about the drawings that they had done as young children, questioning whether the image had 'originated' with them, whether it was a copy of something and whether someone had shown them how to do it. Results indicated that almost every image could be traced back to an already existing graphical source. These sources were very varied, for instance, drawings that had been done by parents, older siblings, or peers, to images from the popular media, especially comics and television, but also from illustrations and photographs. Consequently this research by Wilson and Wilson highlights a tendency among children to rely on pre-existing graphical images to inform their drawings. Furthermore they report that this tendency is evident among children from the age of 6 years and that by the age of eight or nine almost all drawings are based on a pre-existing graphical model. This suggests that original and novel ideas for drawings are less common among older children and that this is in contrast to Geist and Aldridge's (2002) findings indicating an increase in original ideas for oral stories with age. Consequently, the pre-existing graphical models experienced by children would seem to be particularly influential to the drawings that they produce, and therefore the content matter that they chose to depict.

The type of graphic models that children are exposed to will vary depending on the culture in which they find themselves and even children within the same culture may experience different graphic models depending on the attitudes and views of influential adults such as teachers and parents. A clear example of this in England is the experiences of children who attend a National Curriculum compared to a Steiner School. In schools teaching the National Curriculum for Art and Design many primary school teachers tend to value representational drawings and encourage representational drawing skills (Burkitt et al. 2010). In comparison, in Steiner schools there is considerable emphasis on the role of imagination and expression in drawing and teachers do not encourage representational drawing or teach technical drawing skills until children are approximately 12-years-old (Jünemann & Weitmann, 1977). These attitudes and practices may not only influence the support and guidance that children receive in school they may also influence their experiences in the wider school context and also at home. For example, in Steiner schools teachers are expected to create an artistic environment within their classrooms, with colours, decorative items, wall hangings and pictures carefully chosen by teachers (Nicol, 2011). Furthermore, the Steiner pedagogy discourages parents from allowing their children to watch television at home (Nicol & Taplin, 2012) and encourages them to buy picture books inspired by the Steiner approach (Dancy, 2006). These books are colourful, tend to contain only scene based pictures which are often based on images made using water colour paints and consequently the lower level of detail encourages the child's imagination to add to the picture and the story (Dancy, 2006). Consequently, both the support received by children and the images which they experience may differ depending on the art values of both their teachers and parents.

The contrasting experiences of pupils attending National Curriculum schools compared to schools following the principles of Rudolf Steiner may lead to differences

in their choices of content and style for their drawings. It is possible that the emphasis on imagination and expression may encourage younger Steiner pupils to draw more on these sources for inspiration when deciding what to draw. Whereas National Curriculum and older Steiner school pupils may follow a desire to represent realistic and life-like subject matter in their free drawings. Indeed there have been differences found in the style of the free drawings depicted by pupils from these two school types. For instance, in the previous Chapter of this thesis evidence was reported that in their free drawings Steiner pupils used more colours, combined colours more frequently, used more of the page and tended to produce more scene-based drawings than National Curriculum school pupils. These differences in the drawings of pupils may reflect the differences in their creative intentions and ideas about what to draw.

The aim of this study is to explore and compare the creative intentions behind the drawings that children from National Curriculum and Steiner schools produce. For the purposes of this study, which is exploratory in nature, a qualitative method was selected as this facilitated a more in-depth examination of the rich and varied creative intentions, as well as factors that may influence these. The use of a qualitative method also reflects previous research in this area as Coates (2002), Coates and Coates (2011) and Geist and Aldridge (2002) have all drawn on such a method. The objective of the current study was to describe the creative intentions rather than seek to support a particular hypothesis or make generalisable predictions. The analytical strategy will be based on Braun and Clark's (2006) guidelines for conducting a thematic analysis. This is a method for identifying, analysing and reporting patterns within data (Braun & Clarke, 2006) and is a widely used technique for analysing qualitative data both within and beyond psychology (Boyatzis, 1998; Braun & Clarke, 2006; Roulston, 2001). Initial regard for thematic analysis has been variable and the lack of clear and concise guidelines has led to some criticism of this method (Antaki, Billig, Edwards, & Potter,

2002). However, Braun and Clark, in their seminal article, argue for its place as a recognised qualitative method and outlined a six-phased guide to conducting thematic analysis. This article has now been cited in over 1000 other papers (Web of Science, 2012) and has generally increased the acceptance of thematic analysis as a method. Themes identified are strongly linked to the data themselves (Patton, 1990), and data are coded without trying to fit into a pre-existing coding frame, or the researcher's analytic preconceptions. This gives flexibility and theoretical freedom, along with an ability to create a rich and detailed account of data (Braun & Clarke, 2006).

Previous research and theoretical views concerning the importance of taking into account what children say about their drawings were an important motivation for this research. Consequently, individual, semi-structured interviews were carried out prior to, and after the completion of a free drawing. The suggestions made by Wright (2010) for the effective role of an interlocutor were taken into consideration. However, the intention was not to engage, motivate or influence the child in anyway. Consequently, children were asked prior to beginning to draw what they intended to depict, during the drawing process itself the child was not encouraged to engage in discussion with the researcher but directly after the drawing was declared finished the child was asked to describe their drawing. Prompts were used to encourage as detailed a description of the drawing as possible. To insure that their drawings and verbal responses would not be unduly influenced by interaction with other children during the drawing process (as commented on by Coates & Coates (2011), Thompson (1999) and Wilson & Wilson (1977) children were tested individually. These semi structured interviews were transcribed and thematic analysis used with the aim of describing where children get the ideas for the content of their drawings and to comment on how this may differ between pupils attending National Curriculum and those attending Steiner schools.

4.2 Method

4.2.1 Participants

Fifty nine participants took part in total, 32 were from National Curriculum and 27 from Steiner schools. All pupils were between the ages of 6 and 16 years old, drawn from 4 specific age groups; 6-7, 9-10, 13-14, and 15-16 years olds. The mean ages (with standard deviations) and the gender distribution for all groups of pupils are shown in Table 5.1. The British Picture Vocabulary scale (BPVS, second edition: Dunn, Dunn, Whetton & Burley, 1997) was administered to all children in the youngest age group where it was thought that differences in verbal ability could be influential on their ability to understand the task instructions and engage in the semi-structured interview. Standardized scores were calculated (min = 85: max = 128), and these indicated that all children in the youngest age group had average, or above average vocabulary comprehension.

Table 4.1

Means (year: month), standard deviations and gender of participants' ages by year group and school type.

	School									
	National Curriculum					Steiner				
	Taught Art					not taught art				
Age group	7 n = 6	10 n = 8	14 n = 6	16 n = 6	16 n = 6	7 n = 7	10 n = 6	14 n = 7	16 n = 7	16 n = 7
Age Mean <i>(Year: Month)</i>	7:1	10:0	14:4	15:11	16:2	7:4	10:0	13:8	15:10	15:10
(St. Dev)	(2.23)	(3.12)	(2.99)	(4.83)	(5.99)	(3.10)	(3.24)	(3.92)	(4.32)	(4.32)
Gender	<i>3f, 3m</i>	<i>4f, 4m</i>	<i>2f, 4m</i>	<i>4f, 2m</i>	<i>3f, 3m</i>	<i>4f, 3m</i>	<i>3f, 3m</i>	<i>4f, 3m</i>	<i>4f, 3m</i>	<i>4f, 3m</i>

Five National Curriculum and four Steiner schools (all those involved in the drawing study reported in the previous Chapter) were involved in this research. These schools were matched on geodemographic classification (based on Acorn, 2010) and were selected to make sure that they were as representative as possible of their particular school type (see Section 4.1.2 for full details of how the schools were selected) Pupils, largely of white ethnic-origin, were selected by their class teachers. Teachers were instructed to select children that they thought would enjoy talking to the researcher about their drawing. However, they were also requested to select children who were representative of their classes' drawing ability rather than just those who were especially good at drawing. Prior to visiting the school consent letters were sent home to the parents/guardians of each pupil and each pupil was verbally asked if they were happy to participate. No parents denied consent and all pupils gave positive verbal consent.

4.2.2 Procedure

Data was collected as part of the study described in the previous Chapter. In this study pupils had been asked to draw three expressive (happy, sad and angry), two representational (man and house) and one free drawing. A time limit of 10 minutes was given for each drawing and participants were provided with seven coloured pencils (red, green, blue, yellow, pink, brown and black) and an HB pencil. The free drawing, which was the focus of this study, was completed in a separate session to the other drawings, away from the main class, either in a quiet corner of the classroom or a separate room close to the classroom. This allowed the semi structured interview about the drawing to take place and be recorded. At the beginning of this session the instructions for the free drawing were given:

“I would like you to draw me a picture of anything that you want; you can draw whatever you would like to. Use the sheet of paper in front of you and any of the pencils that you want. You have ten minutes to do the drawing. Please try to draw the best drawing that you can. Before you start drawing I would like you to spend moment thinking about what you are going to draw, I would then like you to tell me about what you are planning on drawing. Once you have finished the drawing I will also ask you some questions about what you have drawn”.

After the instructions the child was given the opportunity to ask any questions. All questions were answered but no instruction about what or how to draw were given. Time was allowed for the child to consider what they were going to draw. Once the child appeared ready to draw (e.g. reached for pencil) the researcher asked them what they were planning to draw. While the child drew they were not interrupted. However, if the child initiated conversation the researcher responded but was careful to avoid comments that might influence the content of their drawing in any

way. Once the child had declared the drawing finished, or the ten minutes time allowed was up, the researcher asked the children to tell her about their drawing. No direct or leading questions were asked other than ‘can you tell me about what you are going to draw/have drawn’. The child was encouraged to give as much information about the drawing as they wanted. Nudging and reflective props were used to encourage this, e.g. “can you tell me anything else?”, “really!” etc but questions were not asked about specific elements of the drawing. A digital voice recorder was switched on for the duration of the session to record all dialogue between the researcher and child. This was then transcribed to aid subsequent analysis.

5.2.3 Analytic Approach

The analysis was carried out in six phases based on Braun and Clark’s (2006) guidelines. These are fully described in Table 5.2 below. Throughout the analysis a realist epistemology has been followed (Potter & Wetherell, 1987). Consequently the language used by pupils was seen as a way to access their thoughts and motivations about where the ideas for their drawing came from.

Table 4.2

Descriptions of processes involved in the six phases of thematic analysis.

Phase	Description of the process
1. Data familiarisation	Conducting and transcribing the semi-structured interviews, reading and re-reading the data and noting down some initial ideas.
2. Generating initial codes	Initial codes were identified from the data. The complete data set was then worked through, copying and pasting extracts under the initial codes and adding codes as new ideas appeared.
3. Searching for themes	The codes were reviewed and collated into potential themes. Files were created which contained all the extracts relevant to each theme.
4. Reviewing themes	This involved a second researcher, familiar with the research area, reading through the coded extracts placed under each theme.
5. Defining and naming themes	Review and discussion with the second researcher lead to clear names for each theme and a thematic map being generated.
6. Producing the report	Within each theme the extracts were separated into those that were from National Curriculum pupils and those from Steiner pupils. Extracts to support the identified themes were selected. At this stage the drawings which accompanied these selected extracts were also identified and matched to the extracts for illustration purposes.

Analysis began with all the transcriptions collated together, regardless of age and school type, to form one large textual base. The data set was then read and re-read – first to gain familiarity with the content and then at a deeper level to identify common themes that ran throughout the data set. In identifying the themes Braun’s and Clark definition, “A theme captures something important about the data in relation

to the research question, and represents some level of patterned response or meaning within the data set” (p 82.) was used to help decide what constituted a theme. The themes, therefore, came from the data set itself rather than any preconceived idea of what would be evident. Consequently the approach taken to identify the themes was an inductive, or bottom up approach (Firth & Gleeson, 2004, Patton, 2002). This type of analytic approach is appropriate to the exploratory nature of this study as it ensured the analysis was driven by the data and that the themes were directly linked to the children’s comments.

Throughout the process of constructing the themes a more specific research question evolved. This related the extent to which the idea for what was being depicted was based on a representational compared to a more creative/imaginative origin. The themes constructed can be discussed in relation to existing theories about creativity and the position taken by National Curriculum and Steiner schools to the teaching of art and in particular drawing. The extracts selected to represent each of the themes in the analysis section were chosen to include images and narratives which clearly portrayed the theme. Also the age and school type of the pupil was taken into account with the aim being to select extracts which were not only good illustrations of the theme but were also representative of the ages and school type of the pupils whose extracts made up each theme.

For thematic analysis, unlike much content analysis, prevalence within, and between themes, cannot be achieved through providing a quantified measure (Wilkinson, 2000). There is a lack of consensus about how prevalence should be reported in thematic analysis; indeed Braun and Clark highlight this as an area in which more debate is necessary. Some studies have used phrases such as “a number of participants” (Braun, Gavey, & McPhillips, 2003, p. 249), “the majority of participants” (Meehan, Vermeer & Windsor, 2000, p. 372), or “many participants”

(Taylor & Ussher, 2001, p. 298). While phrases such as these suggest that the theme reflects the data they do not really tell us much beyond this when used with data from a single participant pool. However, for the current study they seem appropriate in the context of making comments about prevalence within each themes of extracts from Steiner compared to National Curriculum school pupils. Consequently, comparisons will be made, using descriptors such as ‘the majority/minority of participants’ and ‘approximately equal numbers’ to report between school type differences and similarities.

4.3 Analysis

The analysis resulted in four key themes all relating to where the idea for the content of the drawing came from. These were, 1) direct observation of an object from the immediate environment, 2) an object or scene from memory, 3) imagination and 4) expression. Figure 4.1 below represents these key themes and includes details of the further sub-themes which were identified from the data. In addition to these themes factors which influence children’s choice of what to draw were also evident within the data, these made up two distinct themes. These themes were, ‘desire to draw something ‘not too hard’ and ‘initial uncertainty’. The key themes relating to where the idea for the drawing came from will be discussed first, followed by a discussion of the themes about factors that influence the choice of subject matter.

Thematic Map

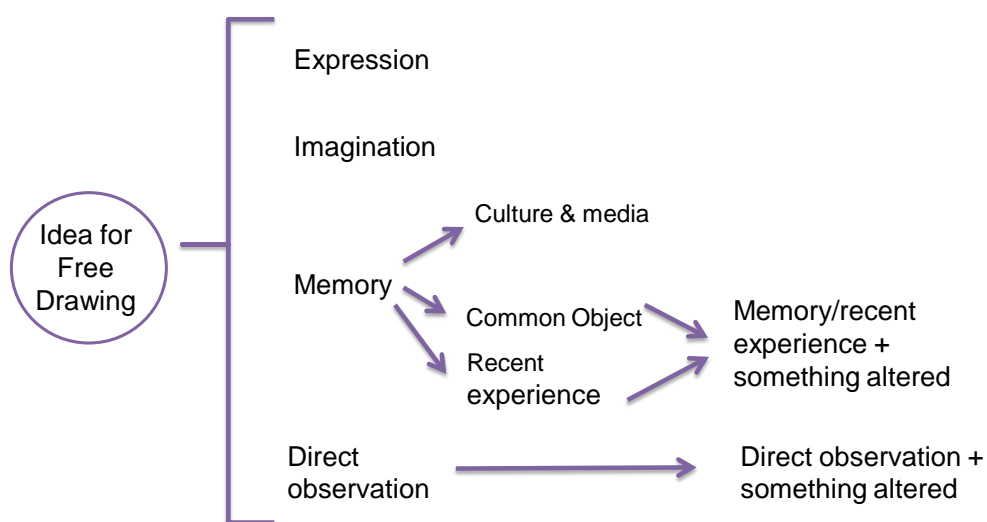


Figure 4.1. Map of themes for the sources that children get their ideas from about what to draw

4.3.1 Direct Observation

Within the data set a distinct theme was pupils deciding to draw something that was directly in front of them. Some pupils indicated this before they started to draw, and then continued to draw a representation of what they saw.

'That!' (Pupil pointed to the door handle directly in front of the table at which he was sitting)

- Age16 male National Curriculum pupil not doing GCSE art -

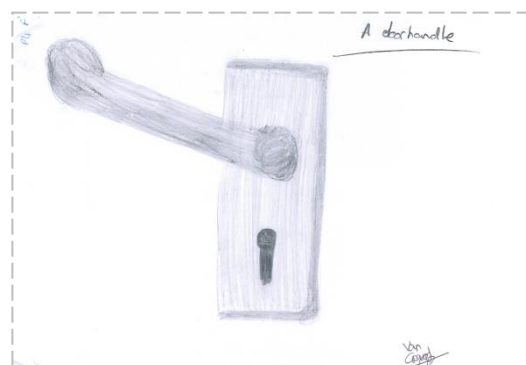


Figure 4.2. Example of a drawing from direct observation.

Whilst some pupils chose to use three dimensional objects as models, as demonstrated by the pupil depicting the door handle, others chose to ‘copy’ something that had already been translated into the two dimensional for them. For example, some pupils used the pictures within the classroom as templates.

‘Something that I can see!’ (Later in interview) ‘I just drew that’ (points to picture on school bag)

- Age 16 female National Curriculum Pupil taking GCSE Art -



Figure 4.3. Example of a drawing from direct observation.

When the extracts are looked at in terms of school type there is considerably more evidence of National Curriculum pupils choosing to draw something from direct observation. Furthermore, all age groups of National Curriculum pupils made comments which contributed to this theme. However, only a single Steiner school pupil made a comment that contributed to this theme. Consequently, choosing to draw something from observation appears to be common among National Curriculum pupils of all ages but much less common amongst Steiner school pupils.

From direct observation but then altering the picture in some way. The extracts in this theme relate to instances where pupils report changing or adding to the subject matter they have observed. Although the initial motivation and idea for the drawing came from an object that the pupil was looking at, the actual drawing did not attempt create an accurate representation of this object. For instance, in the example shown below the jar that was on the teacher’s desk was not shaped like a marmite jam jar and the plant that was drawn looked quite different from the one that was on the

shelf. Extracts within this theme came from children across age groups within both school types.



'That' (points to a plant high up on the shelf) later in interview 'but I changed it to make it look nicer'

- Age 7 female Steiner Pupil -

'I saw a jar on teacher's desk and thought I would draw that, I then made it into a jar of marmite, I hate marmite!'

- Age 16 female National Curriculum Pupil taking GCSE art -

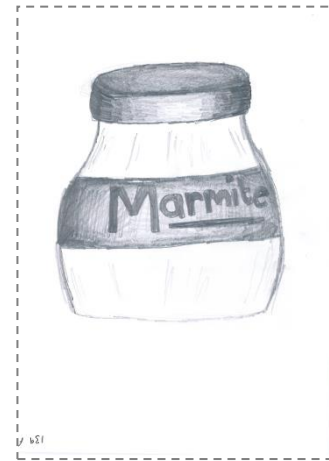


Figure 4.4. Two examples of a drawing from direct observation but then altering the picture in some way.

4.3.2 Memory

Within the key theme of memory there were sub-themes relating to extracts indicating that the content of the drawing was based on memories of common objects, recent experiences and recalled scenes from the media and cultural experiences.

Memory of common objects and recent experiences. Within this theme there were two sub-themes; drawing common objects from memory and drawings based on a memory of a recent experience. Extracts within the common objects theme involved pupils saying that they were going to draw, or had drawn, something based on a

mental representation. Extracts from this theme tended to be very short, for example, ‘a clown’ (age 6 years, female, National Curriculum Pupil), ‘a dog’(age 15 female National Curriculum GCSE art pupil) and the drawing tended to be of single objects.

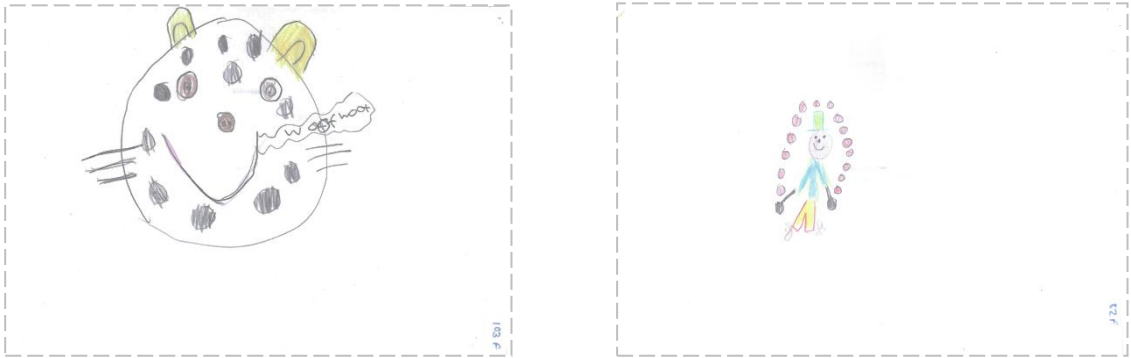


Figure 4.5. Two examples of drawings of single objects from memory.

Extracts from the sub-theme of recent experiences tended to be slightly longer and more descriptive. These indicated that the idea for the subject matter of the drawing was based on a recent experience.

*‘The way to school’[later in interview]
 ‘Well, this is our car (points to red car at bottom of picture) And these are the roads and the other cars’*

-Age 7 female Steiner Pupil -



Figure 4.6. Example of a drawing of a recent experience.

It was notable that a considerable number of the extracts in this theme referred to experiences that the pupils had had in recent art lessons as being the prompt for their choice of subject matter. This can be seen in the following extract.

*'Well in my art project I am drawing
lips...'*

-Age 16 male Steiner pupil-



Figure 4.7. Example of a drawing based on recent experiences in school art lessons.

When the extracts were divided up into those that were from National Curriculum and those that were from Steiner pupils it was evident that the majority were from National Curriculum pupils and represented the sub-theme of drawings of common objects from memory. The extracts from National Curriculum pupils were from all age groups suggesting that pupils of all ages use recent experiences and memories of what familiar objects look like as inspirations for their drawings. The extracts that were from Steiner pupils, and there were fewer of these, tended to represent the sub-theme of recent experiences with some relating to experiences in art lessons. In comparison no National Curriculum pupils made comments about their drawings being inspired by, or based on, their art lessons. A further contrast was that whereas the extracts from National Curriculum pupils were made by children from across all age groups those from Steiner pupils tended to be made by the older two age groups, the 14 and 16 year olds.

Memory/recent experience but then altering the picture in some way.

Extracts in this category were indicating that the initial idea for the drawing was based on a recent experience but that the pupil had changed something about this experience using their imagination. Some of the drawing represented something that the pupil would have liked to happen, for example the extract about the football scores. Other

motivations for the change in the drawings were less clear, for example in the extract about trying on hats.

'I've drawn a television showing the full time England-Germany score – or what I would have liked it to have been'

Age 14 male National Curriculum pupil



'I got the idea for this drawing from when me and my sister went to a hat shop. We tried on lots of hats, it was a laugh! But I haven't drawn it as me and my sister, I have drawn it as me and Jasmine.'

- Age 16 female Steiner Pupil -

Figure 4.8. Two examples of drawings of recent experiences slightly altered in some way.

Within this theme there were again extracts from all age groups of pupils, Furthermore, when the two school types were looked at it was evident that the distribution of extracts within this theme was almost equal between National Curriculum and Steiner pupils.

Culture and media. Some extracts reflected the influence of culture and media on children's choice of subject matter. For example, some pupils reported that they were drawing scenes from popular television programmes such as Star Wars. Other extracts were a reflection of drawings based on ideas from cultural narratives,

such as fairies or aliens. Extracts within this theme came from children across age groups and relatively equally from both school types

'Star wars! Yoda is helping Luke to find the baddie'

- Age 7 male National Curriculum Pupil -



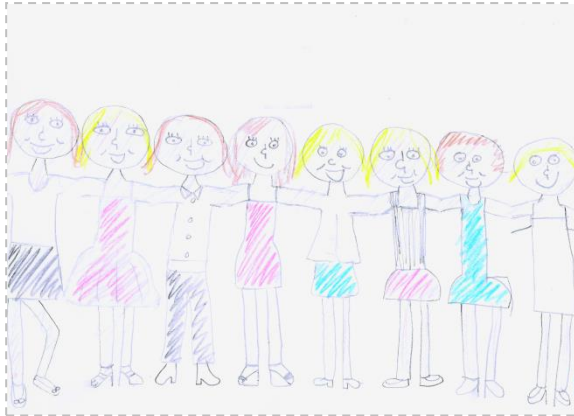
'I will draw a fairy or something like that'
[after the drawing was completed] 'I have drawn a fire fairy'

- Age 16 female Steiner Pupil -

Figure 4.9. Two examples of drawings inspired by popular culture and the media.

4.3.3 Imagination

So far the themes discussed contain extracts referring to representational subject matter. While the majority of themes in this extract also relate to representational, rather than abstract content, they differ from those in the themes discussed so far as imagination was positioned as key to the idea on which the drawing was based, rather than simply an addition. Some of the extracts in these themes indicated that an event, either in the near or more distant future was being depicted, and as such the child was using their imagination (along with previous experiences) to create an image of the future. Examples of this can be seen in the extracts on the following page.



'We are leaving school tomorrow so we will be having lots of photos taken – I am going to draw us lining up for the photos – me and my friends.'

- Age 16 female National Curriculum Pupil not taking GCSE art -

'I will just draw what I am thinking of...I have got a big ballet show coming up, so I drew that... I am going on holiday with my boyfriend in half term so I drew that too – there we are on the beach.'

- Age 15 female Steiner Pupil -



Figure 4.10. Two examples of drawings from imagination.

As well as extracts indicating that imagination had been used to draw a picture of a future event there were also extracts that indicated that pupils used their imagination to draw pictures of things that they had never seen for themselves, such as this pupil who drew the fountain of wisdom.

'Well I have drawn the fountain of wisdom, it is from the Norse myths that we have been hearing at school.'

-Age 10 male Steiner Pupil-



Figure 4.11. Example of a drawing based on imagination.

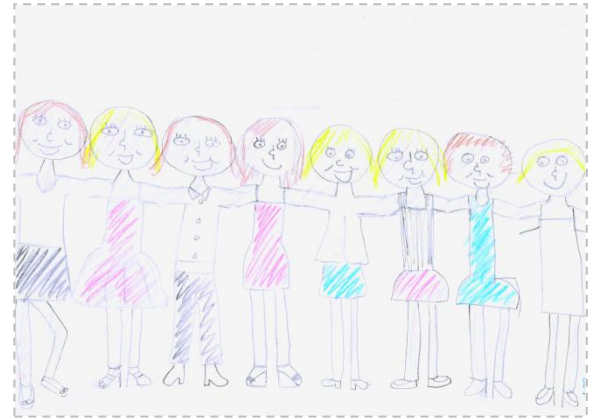
There were extracts within this theme from across all age groups. When between-school differences were looked for it was evident that the majority of extracts originated with Steiner school pupils, with just a couple of extracts about future events from National Curriculum pupils. There were other extracts that related to subject matter that could be conceptualised as imaginative, for example 'Fairies' (age 16 female Steiner pupil), 'Alien' (age 10 female National Curriculum pupil). However, these were not included in this theme as through culture children are exposed to many images of fairies and aliens and so it cannot be assumed that they are actually drawing on imagination to create their own unique representations of this subject matter, instead they may be drawing on images that they had previously seen. Extracts such as these were discussed under the theme of culture and media.

4.3.4 Expression

Similar to the extracts for the imagination theme above many of the extracts in this theme also referred to representational content. However, this representational content was put together in such a way as to communicate a feeling, emotion or message to the person looking at the drawing. Examples of this can be seen in the following two extracts.

'I ran out of time so they are just people rather than my friends in particular – it shows how we are all a group though and that we are going to keep in touch.'

- Age 16 female National Curriculum Pupil not taking GCSE art -



'I drew a landscape, it was just what came to my mind really. I then drew a road through the landscape, showing that people had destroyed the landscape and shot the bird...'

- Age 15 male Steiner Pupil -



Figure 4.12. Two examples of expressive drawings.

As well as extracts such as these which indicated an intention to ‘show’ a message there were also some which reflected the commonly held belief that drawing can be an opportunity to express emotions. In these extracts the motivation to get unclear thoughts from the mind and onto paper was dominant. However, there was no direct mention of any therapeutic benefit of this, for example, whether the mind felt freer as a result or not.

'I have just tried to draw what is on my mind really. Some of what is in my mind is not very clear, that is kind of the stuff in between, the colours.'

Age 15 female Steiner Pupil -



Figure 4.13. Example of an expressive drawing.

Looking through the extracts that made up this theme it was clear that there were slightly more from Steiner compared to National Curriculum pupils. Additionally it was also apparent was that most of the extracts were from pupils over the age of 11 years old.

4.3.5 Initial Uncertainty

This is the first of two themes which relate to more generic factors which influence children's choice of what to draw. In this theme, 'initial uncertainty', children were initially unsure of what they were going to draw and communicated this uncertainty before starting to draw. They seemed to be taking the approach that as they actually began to make marks on the paper they would get an idea of what to turn them into and what to draw. For example this child started drawing a pattern of interconnecting lines; these lines then became the scales on this 'sort of like a crocodile'. Extracts within this theme came from children across age groups and relatively equally from both school types.

'I don't know...' [child starts drawing] 'It is sort of like a crocodile'

-Age 10 male National Curriculum pupil-



Figure 4.14. Example of a drawing where the child was initially uncertain of what to draw.

4.3.6 Desire to Draw Something 'Not too Hard'

Extracts in this theme tended to reflect an assumption that drawing is difficult and that as the pupils had free choice they would draw something that was not too hard.

'Well I don't want to draw anything too hard.... I know I'll draw a bear'. Later in the interview: 'Well it is something that I have drawn before, and that is quite simple to draw'

-Age 16 male National Curriculum pupil not taking GCSE art-



Figure 4.15. Example of a drawing where the child did not want to draw anything 'too hard'.

Extracts making up this theme were made by fairly equal number of National Curriculum and Steiner pupils. What was striking though is that the majority of extracts had been made by secondary school pupils, especially those aged 14 and over.

4.4 Discussion

From the analysis presented above it seems that children draw on a wide range of sources of inspiration for the subject matter of their drawings. There is some suggestion in the sample that the National Curriculum pupils may draw inspiration from objects in their immediate surroundings and their memories of common objects more frequently than Steiner school pupils. This could be a reflection of the bias towards representational drawing found among many National Curriculum primary school teachers (Burkitt et al. 2010) who tend to value representational drawings and foster representational drawing skills. In comparison Steiner school teachers do not encourage or teach representational drawing until children are approximately 12 years old (Jünemann & Weitmann, 1977). Those few Steiner pupils who did talk about the inspiration for their drawing coming from direct observation or memory of a common object tended to be those from the older two age groups, the 14 and 16 year old pupils.

Rather than drawing objects from their immediate surroundings or common objects from memory Steiner school pupils in my sample were more likely to base their drawings on memories of recent experiences. This is also supported by the analysis in the previous Chapter indicating that Steiner pupils were more likely, in their free drawing, to draw a scene rather than a single object. Some of these drawings from recent experiences were related to their studies in art lessons. This may reflect a desire to practice and develop the new skills to which they were being introduced. Such comments were not made by National Curriculum pupils. The reasons for this are not clear, it could be that they did not find their art lessons as inspiring or maybe they received less encouragement from teachers or parents to continue their projects outside the art lessons. Further research would be required to begin establish potential differences among motivations of National Curriculum compared to Steiner pupils and

also of the encouragement provided by adults most likely to have a direct influence on their drawing experiences.

Imagination seemed to be used in two related, but distinctive, ways when pupils were deciding what to draw. Either it was used to alter some aspect of a drawing which originated from memory or it was used as the basis for the whole drawing. Pupils from both Steiner and National Curriculum schools in my sample tended to use imagination to add to, or alter, a drawing based on memory. However, when narratives which reflected drawings based principally on an imaginative idea were considered, it appeared that these were more common among the Steiner pupils. This increased prominence of imagination is a reflection of the considerable emphasis within the Steiner curriculum on nurturing the imagination (Nicol & Taplin, 2012; Nobel, 1991). Consequently, the relative frequency with which pupils' narratives about their drawings indicate that these were based on a motivation to depict content from their immediate surroundings, compared to content from their imagination, appears to reflect the different expectations and use of drawings in the National Curriculum and Steiner classrooms.

A further influence of the classroom experiences of the Steiner and National Curriculum pupils which was evident in this sample was the frequency of narratives emphasising expressive content of drawings. The Steiner pupils were slightly more likely to talk about expression compare to their National Curriculum school counterparts. This would seem to reflect the emphasis on expression throughout the curriculum and in particular the focus on the use of colours to depict feelings in art (Jünemann & Weitmann, 1977; Nobel, 1991). When considering extracts within this theme of expression it was also notable that the majority of extracts came from the older pupils within the sample. This may reflect their conscious awareness of the potential of drawings to communicate emotion and feelings with increasing age.

Both National Curriculum and Steiner pupils used ideas from popular culture to inform the subject matter in their drawings. Many of the extracts in this theme described characters from television programmes, cartoons and films as being the inspiration for the drawing. Consequently, the similarity in the frequency with which pupils from the two school types appeared to draw on these sources is somewhat surprising as the Steiner curriculum discourages parents from allowing their children to watch televisions believing that it may hinder the development of imagination and creativity (Nicol & Taplin, 2012). There are a number of factors which may explain the similarity between the two school types. Firstly, not all the extracts in this theme reflected depictions of content inspired by electronic visual images, as there were also extracts describing fairies, aliens and other characters from popular culture that could be inspired by stories and pictures. Furthermore, watching even a small amount television may create a motivation to depict the images seen, so although Steiner pupils may watch less television its influence may still be similar in this respect. This argument is supported by suggestions made by Dancy (2006) that images on television make a deep impression on children, who will repeat these images in play or drawing as they try to digest and assimilate what they have seen. However, without further investigation, taking into account more fully the home environment of the pupils, it is difficult to draw any firm conclusions about the frequency of television viewing and the potential impact of this on children's choice of depicting images from popular culture.

Another similarity among the pupils from the two different school types in this sample was their sometimes initial uncertainty when trying to decide what to draw and also their acknowledgement that drawing is a difficult task in their desire to select 'easy' subject matter. The desire for drawing things that were easier to be satisfied with was particularly prevalent though among the older National Curriculum pupils

who were not taking GCSE art. This could be a reflection of lower drawing self-efficacy, which may be one of the reasons that pupils opt not to take an art GCSE. Pupils across all age groups, and from both school types, expressed in their narrative an uncertainty about what to draw, and then seemed to develop their ideas as they made marks on the page. This is a reflection of how ideas for drawings can develop and alter through the drawing process as an individual encounters new experiences and challenges. Both of these themes, a desire to draw something simple and an initial uncertainty about what to draw seem to reflect Chan & Zhao (2010) suggestion that a drawing is the product of both the creative idea and the technique to draw it, and will evolve through the process of its creation.

In the course of this analysis few age related differences have been commented on. This is due to the predominant focus being between school differences and the sample size being relatively small. Nonetheless, when evidence from Geist and Aldridge (2002) concerning the developmental progression of where the ideas for children's invented stories originated similarities can be seen. They comment on young children using ideas from stories they have previously heard, this is similar to pupils in this study using 2-d images to copy from and pictures in the media to inspire their drawings. However, my evidence did not suggest that this was something that only the youngest participants did. Instead there was evidence of pupils using models which had already been translated into the 2-dimensional across all age groups. It is possible that this may occur when pupils are less confident, for example the young pupils may have had less confidence in their story telling ability and the drawers in this study who decided to use a 2-dimensional model as their inspiration may have similarly lacked confidence in their ability to create a representational drawing from a 3-dimensional model. Geist and Aldridge also comment on children using recent experiences as a source for their ideas as well as imagination. Both of these were

themes which were reflected in the current analysis too. This suggests that the sources of ideas for innovative stories might be similar to those for free drawings.

When further considering previous research in this area there are clearly some similarities between the themes identified by Coates and Coates (2011) and those identified in this analysis. Their theme of first-hand experiences relates closely to the themes of direct observation, memory and recent experiences. Similarly Coates and Coates also found evidence of children then adapting these to include a fantasy element too. This is very similar to the theme of memory/recent experience and something altered. The theme of culture also replicates part of Coates and Coates' broad theme of heroes and subjects from the media. In addition to those themes which reflect those identified by Coates and Coates additional themes of imagination and expression have also been explored in the current analysis. The identification of these additional themes is most likely a reflection of the more extensive age range of pupils sampled than in Coates and Coates' study as it tended to be extracts from the older pupils which contributed to the expressive theme. Also the inclusion of Steiner schools could explain the identification of the additional themes. It was these individuals who contributed the most extracts to the imagination theme. Overall this research provides greater insight into the range of sources that can inform and influence the content of a child's drawing.

In earlier research by Coates (2002) she commented on two distinct styles of narrative children used when talking about their drawings; either descriptively or more imaginatively, creating a story about what was happening in the picture. Coates' explanation for this difference was that teachers used drawings differently and had different expectations of the role of drawing, and that this influenced the way that their pupils tended to talk about drawing. This explanation seems particularly salient when considering the findings of the current study. In Steiner classrooms teachers place

considerable emphasis on developing pupils' imagination, whereby imaginative stories are told by teachers and pupils, and drawings of mythical creatures and other imaginative content are displayed throughout the school (Nicholson, 2002). This seems to be reflected by the children's narratives in the current study. More Steiner school pupils tended to recount their recent experiences and events that their drawings are based on and provide narration to accompany their imaginative drawings. In comparison the National Curriculum pupils tended to give more succinct and descriptive accounts of the content of their drawings.

It is possible that more of the National Curriculum pupils may actually have produced drawings which were related to a recent experience or an imaginative idea but that these pupils did not explain that this was the basis of their drawing. Instead they tended to focus their talk about their drawing on a description of the content rather than spontaneously giving insight into where the ideas had come from. This could be a further reflection of the differences in the classroom experiences and the expectations of the teachers. Indeed Woods, Ashley and Woods (2005) report that Steiner schools place considerable more emphasis on the development of speaking and listening skills, spending more time developing fluent oracy among pupils than do National Curriculum schools. This difference in the pupil's practice, and potentially in their confidence, in expressing themselves orally could have impacted upon the level of detail children provided in the narratives accompanying their free drawings. Consequently this may have resulted in an underestimation of the extent to which National Curriculum pupils used recent experiences and imagination to inform the content of their drawings.

More use of the interlocutor techniques advocated by White (2010) could have been used, for example during the actual drawing process, to ensure that pupils talked about the origin of their ideas for the content of their drawing. This may have

increased the depth of their narrative so that any motivation to depict content from imagination or recent experiences was expressed orally. Doing this in a non-leading way would be challenging and some children might not be consciously aware of where the idea came from – it may just have ‘popped into their mind’. Asking them to become consciously aware of this may have led to fabrication of information in an attempt to please the researcher. Indeed, the fragility of children’s memory (Roberts, 2002) and also the openness of their memories to suggestion (Barlow, Jolley & Hallam, 2011; Brady, Poole, Warren, & Jones, 1999; Leichtman & Ceci, 1995) have been well documented. It could be argued that these factors may have influenced the findings of Wilson and Wilson’s (1977, p.7) research as they asked pupils “Did the drawing originate with you?”, “Is it a copy of something?” and “Did somebody show you how to do it that way?”. These questions reflected the researchers view that the majority of drawings that children produce are based on images that children have previously seen and also their belief that children’s interactions with others influence the content of their own drawings. This could have compromised the validity of the findings as their questions may have encouraged pupils to report views that were in line with those that Wilson and Wilson already held through the direct questioning used by researchers. Furthermore, evidence by Waterman, Blades and Spencer (2001, 2004) found that asking children some types of questions (e.g. yes/no) tempted children to speculate about information that they were not sure of. So although more encouragement to talk about motivations for drawing may provide a fuller insight into the creative intentions, this would need to be done with considerable care and with reference to the growing body of literature on effective questioning of children (e.g. Krähenbühl & Blades, 2006; Orbach & Lamb, 2000; Waterman et al., 2001, 2004).

Overall this research adds considerably to our understanding of the sources that pupils use when deciding what to depict in their drawing. The findings also give

some indication of potential differences between the two school types studied. In order to generalise these findings and make a quantitative comparison of the differences and similarities between pupils from the two school types, and the origin of their ideas of what to draw, further research would be required. This research would be informed by the themes identified in this study. This could potentially take the form of content analysis or alternatively independent raters' could be used to assign scores to each child's drawing and accompanying narrative based on the extent to which it appeared to be based on the various sources described within this study. The advantage of this is that it could objectively quantify the extent to which different sources were drawn on by the pupils when deciding what to depict. In order to support this quantitative approach to data analysis the interviews would need to be much more structured and more directed towards eliciting from the pupil where the idea for their drawing originated.

4.5 Summary

The aim of this study was to explore where children's ideas for the content of their drawings originate from. Thematic analysis was used and the research question developed based on the analysis of the data. This has resulted in new knowledge and insight into the range of sources that pupils may use to inspire and inform their choice of what to draw. From the children sampled in this study it appeared that Steiner school pupils were more likely than their National Curriculum school counterparts to use recent experiences, imagination and expression as sources of inspiration when drawing. Whereas the narrative of National Curriculum school pupils was more likely to focus on depictions of subject matter from their immediate surroundings and familiar objects from memory. These findings may reflect a number of differences between the two education systems. For example the differing emphasis within the

curricula on representational compared to expressive drawing skills, the attitudes and practices of teachers and parents and the differing emphasis on oral fluency.

CHAPTER 5: SURVEY STUDY

This Chapter describes a large scale survey study investigating the attitude and practices of the three key players most closely connected to children's drawing experiences (the children themselves, their teachers and their parents). Participants were recruited from National Curriculum and Steiner schools and the children were from 4 age groups, 7, 10, 14 and 16 year-olds. The details of the participants, the surveys used to collect the data and the analysis carried out are described in Section 5.1. The results gathered are fully described in the subsequent three Sections (5.2, 5.3 & 5.4). In Section, 5.5 these findings are summarised and discuss in relation to differences between the two curricula and the small amount of previous research in this area.

5.1 Introduction to the Survey Study

Research has provided us with some insight in to the influence of attitudes and practices of parents, teachers and children on children's drawing experiences (for a discussion of this see Chapter 2 of this thesis). However, it is not known how the attitudes and practices of these key players may differ between different educational systems. This is particularly pertinent in schools following either the National Curriculum for Art and Design or the philosophies of Rudolf Steiner. These two curricula place differing emphasis on drawing and take different approaches to nurturing children's developing drawing abilities. Some differences in the drawing abilities of pupils attending these two school types have been identified (Cox & Rowlands, 2000, Rose, Jolley & Charmin, 2012; and Chapter 4 in this thesis). However, no previous research has considered how the attitudes and practices of the teachers, parents or indeed the children themselves may differ between the two school types. Considering the attitudes and practices of the teachers is particularly important

as children's experiences in schools will be influenced not only by the curriculum being followed but also by the teacher's own interpretations of this and consequently their own attitudes and practices. Furthermore, the influence of the attitudes and practices of parents has been commented on but not systematically investigated. For instance, Cox and Rowlands (2000) suggested that the superior drawing ability of Steiner pupils may be due to these schools attracting more creatively minded parents who offer a more supportive and nurturing home environment for drawing development. Consequently, a study investigating the attitudes and practices of the three key players (i.e. the children, their teachers and parents) associated with these two educational approaches would provide insight into the attitudes and practices relevant to our understanding of children's school and home drawing experiences.

Within Steiner schools there is considerable emphasis on drawing. Teachers are encouraged to value drawing and drawing is included in most subject lessons (Carlgren, 2008). In contrast National Curriculum teachers talk about there being little time for drawing as a result of increasing pressure to deliver the literacy and numeracy curricula (Dowding, 2003). Consequently, it is anticipated that Steiner school pupils spend more time drawing at school compared to their National Curriculum counterparts. Furthermore, these pupils may also spend more time drawing at home as their parents may value the arts more highly and encourage their children to spend more time drawing.

The artistry of Steiner teachers is reported to be a defining feature of these schools (Woods, Ashely & Woods, 2005). Consequently, Steiner pupils are likely to experience teachers who have confidence in their drawing ability and enjoy engaging in drawing. In contrast, many general National Curriculum teachers who are responsible for delivering the National Curriculum for Art and Design express concern about their own lack of ability and how this may hinder them in supporting their

pupils' emerging drawing abilities (Burkitt, Jolley & Rose, 2010; Clement, 1994, Jolley, Fenn & Jones, 2004; Ofsted, 2009). Consequently, National Curriculum pupils may experience teachers who lack confidence in their own drawing ability. These differences in the drawing self-efficacy of teachers between the two school types may impact on pupils' enjoyment of drawing and their developing perceptions of their own drawing ability.

Steiner's view that the arts are central to all learning experiences (Easton, 1997) may also influence teachers in Steiner schools to value the arts more highly than National Curriculum school teachers. This could include a perception that there are more benefits to engaging in drawing. Furthermore, parents, of Steiner school pupils may also value and perceive there to be more benefits of drawing as this may have been a motivation for them choosing to send their child to a Steiner school. These attitudes of the teachers and parents may in turn influence their children resulting in Steiner pupils perceiving there to be more benefits associated with drawing in comparison to those attending schools teaching the National Curriculum. In addition to a perception of there being more benefits of drawing those children, teachers and parents associated with Steiner schools may be more likely to comment on the expressive and creative value of drawing as this is emphasised within the Steiner Curriculum (Jünemann & Weitmann, 1977).

The emphasis within the Steiner curriculum on the creative and expressive value of drawing may also influence the type of help experienced by children. While the National Curriculum advocates teaching young pupils how to draw representationally (Department for Education & Employment, 1999) these skills are not formally introduced to Steiner pupils until much later in their schooling (Jünemann & Weitmann, 1977). Instead children are given considerable freedom in choosing what and how to draw. These potential between-school differences might also be

reflected in the support for drawing that children receive at home as the parents of Steiner pupils are encouraged to support their child's development in accordance with the recommendations made by Rudolf Steiner (Nicol & Taplin, 2012).

Although evidence suggests that most children enjoy drawings (e.g. Burkitt, Jolley & Rose, 2010; Goodlad, 1984) it also seems that by adulthood most individuals spend little time drawing, or even stop drawing altogether. The literature acknowledges the presence of an age related decline in drawing activity (Cox, 1992; Gardner, 1980). However, investigation into the decline of the amount of time that children choose to spend drawing have only identified a lack of consensus concerning the age at which this decline occurs, what factors contribute to it and indeed whether anything should be done to prevent this decline (Burkitt et al., 2010). Furthermore, work in this area is disparate and the age range of children focused on is limited, with few studies considering the attitudes or practices of pre-adolescent and adolescent children, their teachers and parents. So little is known about how drawing attitudes and practices alter as children get older. Moreover, investigating the attitudes and practices among these older children is particularly relevant to issues relating to the decline of drawing as it is within these older age groups that this decline is perceived to occur. Additionally, for National Curriculum pupils an important choice regarding their engagement in the arts occurs when they chose whether or not to follow a GCSE in Art. If these pupils, at age 14, choose not to take Art GCSE they are effectively at the end point of their school art education. However, they may still chose to engage in drawing in their own time, and furthermore some subjects that they are taking at GCSE level may involve elements of drawing, such as technical drawing in maths and sciences or more creative drawing of designs in textiles. Gaining insight from these pupils, as well as those still formally studying the arts, will provide greater insight into

the art attitudes and practices of children who continue with their art education with those who do not.

The current study combines some of the data collected by Burkitt et al. (2010) with newly collected data from Steiner school pupils aged 6 to 16 years old and National Curriculum school pupils aged 14 to 16 years-old (this included equal numbers of pupils who had opted to take GCSE art and those who had not). Interviews were also carried out with the teachers of these pupils and questionnaires were self-completed by their parents. Slightly modified versions of the surveys developed by Rose et al. (2006) were used to collect data. Data was collected from all three key players concerning the amount of time the children spent drawing at home and at school, and how and why these might change with age. Additionally, parents and teachers were asked to consider their own art values, what they believed the purposes and benefits of drawing to be, and the support that they provided for children in their drawing. Children were asked about their own art values, how they were helped with their drawing by adults and other children, and what they thought that the benefits of drawing might be. Furthermore, all three groups were asked about their view on a possible age related decline of children's amount of drawing activity and how such a decline should be addressed. After transcription content analysis was carried out.

Due to the breadth of the survey predictions have not been made about all the differences and similarities that may emerge from the data. However the following key areas have been considered.

1. It was anticipated that due to the emphasis on drawing within the Steiner curriculum that these pupils would spend more time drawing, enjoy drawing more and have more positive perceptions of their own

drawing ability compared to their National Curriculum counterparts. Furthermore, it was anticipated that due to the different school experiences of these pupils that they might also have different motivations for engaging in drawing and preferences for drawing particular subject matter. The questions relating directly to these predications in the surveys include; time spent drawing, enjoyment of drawing, perceived drawing ability, motivations for drawing and preferred subject matter.

2. It was anticipated that teachers and parents from Steiner schools would express higher regard for drawing, reporting more benefits and placing greater importance on the role of art education. In particular it was predicted that these parents, teachers, and also the pupils themselves would make more comments about the expressive and creative value of drawing. The questions relating directly to these predications in the surveys include; the perceived importance of art education, perceived benefits of drawing and questions on adults' art values.
3. In terms of the types of help that parents and teachers offered, and that pupils reported receiving, it was expected that in National Curriculum schools there would be a greater focus on the development of representational skills whereas in Steiner schools there might be more comments about expression and imagination – it was anticipated that these difference would be particularly salient among the younger children. Additionally, it was anticipated that those parents whose children attended Steiner, compared to National Curriculum schools, would report more frequently sitting and talking with their children while they were drawing. The questions most relevant to this prediction

were those relating to the help and support offered and received. Questions about adult's art values also provided some further insight into the emphasis on representation and expression.

4. It was anticipated that evidence supporting an age related decline in the amount of time that children chose to draw, their enjoyment of drawing and their drawing self-efficacy would be found across both school types. However, it was anticipated that in general these factors would be reported to decline later among Steiner pupils and that any decline would be seen more negatively. The questions relating directly to this prediction included; time spent drawing, enjoyment of drawing, perceived drawing ability, acceptance and perceived age of decline in the amount of time spent drawing and whether a decline was perceived to matter.

5.1.2 Method

Participants. Pupils, their teachers and parents were recruited through schools. Schools from across England were chosen according to geodemographic classification of their catchment areas using ACORN (2010). This is a freely available, internet geodemographic tool which divides United Kingdom postcodes into five main sociodemographic categories. Categorization is based on UK census data and extensive lifestyle surveys. Variables included in the categorization process are too numerous to list here but they include house type, size and ownership, family size, educational attainment, occupation, level of spending, financial investments held, internet use, preferred newspaper and television channels. Updating occurs annually, and also takes into account feedback from users and the general public. The schools chosen were all from areas dominated by 'urban prosperity' and 'comfortably off' classifications.

Participants were 180 children, 17 of their teachers and 80 of their parents. Participating children came from four age groups (6-7, 9-10, 13-14, and 15-16-year-olds) and two school types (National Curriculum and Steiner). Fourteen National Curriculum schools took part in the study; four of these were schools that also took part in the drawing study described in the previous Chapter. However, the children who participated were not the same individuals as the data was collected in different years and consequently the children were no longer in the year groups being focused on. The Steiner participants were recruited from three schools, these schools also took part in the drawing study but as with the National Curriculum schools the children who participated in the two studies were different. To reduce sampling bias participants were recruited for each age group and each school types from at least two schools.

For each of the younger three age groups 20 children from schools teaching the National Curriculum and 20 children from school following the Steiner Curriculum participated. For the oldest age group the sample consisted of 20 children from National Curriculum schools who were taking an art GCSE, 20 who were not taking an art GCSE and 20 from Steiner schools, where all students participated in art classes although no art GCSE was taken. The mean ages (with standard deviations), and gender of participants is shown for all groups of pupils in Table 5.1. For the three younger age groups there was no significant differences in the age of pupils from the two school types, $t(38) < 1.14, p < .05, d < 0.01$ ⁵. There was also no significant age difference between the National Curriculum 16-year-olds that were taking art and those not taking art, $t(38) = .30, p = .951, d < 0.01$. However, there was a significant age difference between the National Curriculum 16-year-olds studying art and the Steiner pupils, $t(38) = 4.08, p < .001, d = 0.64$ and the National Curriculum 16-year-

⁵ Age 7 $t(38) = -1.02, p = .313, d < 0.01$, Age 10 $t(38) = -.054, p = .540, d < 0.01$, Age 14 $t(38) = -1.14, p = .260, d < 0.01$.

olds not studying art and the Steiner pupils, $t(38) 3.78, p=.001, d = 0.60^6$. The Steiner pupils being slightly older in both instances. These age differences were due to difficulties gaining access to some of the Steiner schools which resulted in the researcher being unable to visit the school until the summer term. However, as this age difference is only in the oldest group of pupils its effect on the results is most likely negligible as proportionally the difference in age were minimal with a mean difference in ages of 6 months.

Table 5.1.

Means (year: month) and standard deviations of participants' ages by age group and school type.

	School								
	National Curriculum					Steiner			
	Taught Art				not taught art				
Age	7	10	14	16	16	7	10	14	16
Age Mean (<i>Year: Month</i>)	07:01	09:10	14:01	15:10	15.11	07:02	09:11	14:02	16:40
Std. Dev.	4.04	3.87	5.07	4.00	4.9	4.88	4.32	4.59	4.27
Gender	11f, 9m	11f, 9m	10f, 10m	10f, 10m	10f, 10m	11f, 9m	11f, 9m	10f, 10m	14f, 6m

The intention had been to include an equal number of males and female from each age group for each school type, however due to small class sizes and a dominance of females, especially among the 16-year-old Steiner pupils this was not possible, see Table 5.1 for full details. The pupils were largely of white ethnic-origin and were selected from their classes by teachers. Teachers were instructed to select children that they thought would be confident talking to the researcher, but they were

⁶ This age difference was initially identified by a one-way ANOVA investigating the total age in months of these 16 year old pupils attending National Curriculum and Steiner schools, $f(2, 56) = 10.52, p < .001, \eta^2 = .27$

also requested to select children representative of their class rather than those who were good at or enjoyed drawing. Consent letters were sent home to the parents or guardians of each pupil and each pupil was verbally asked if they were happy to participate. No parents denied consent and all pupils gave positive verbal consent.

The participating teachers were those who were principally responsible for supporting the pupils in their art and drawing activities. In National Curriculum and Steiner schools this was the year/class teacher for pupils up to the age of 11. From Steiner schools three teachers (one male, all with more than 5 years teaching experience) participated and from National Curriculum schools eight teachers participated (two male, all with more than 5 years teaching experience). Pupils older than 11 years were taught by art specialists in both school types. From Steiner schools two specialist teachers took part (both male, teaching experience more than 5 years). From National Curriculum schools four teachers took part (all female, all with more than 5 years teaching experience). More National Curriculum, than Steiner, teachers took part in this study as fewer Steiner schools were available to take part and consequently it was necessary to recruit more Steiner pupils per class than initially planned.

All parents/guardians of the children who participated were invited to take part. From the parents of 100 National Curriculum children 41 questionnaires were returned (41% response rate) and from the parents of 80 Steiner pupils 39 were returned (49% response rate). The number of parent questionnaires by school type and age group is shown in Table 5.2. It can be seen that by age group similar numbers of questionnaires were returned by parents from both school types and that fewer questionnaires were returned by the parents of older children. These observations are confirmed by Chi Squared Test of Association indicating that there was no significant difference in the number of questionnaires returned from parents of National

Curriculum compared to Steiner pupils, $X^2(1, N = 80) = 0.5, p = .823, r = .08$. When the numbers of returned questionnaires from the different age groups were compared, regardless of school type, it was confirmed that significantly fewer were received from the parents of older children, $X^2(1, N = 80) = 33.79, p < .001, r = .64$.

Table 5.2.

The number of questionnaires returned from parents of children of each age group from each school types.

	Age group				
	7	10	14	16	not taught art
National Curriculum	13	13	7	4	4
Steiner	14	14	7	4	

The surveys. Three surveys were used in the current study, one to elicit the attitudes and practices of the children, one for their teachers and one for their parents. All surveys consisted of open ended questions and those requiring a response on a five-point Likert type scale, and were based very closely on those used by Jolley and colleagues and from which data was reported in Rose et al. (2006) and Burkitt et al. (2010). A small number of questions that were included in original questionnaires were omitted as they were not seen to be relevant to a comparison of attitudes and practices between two different educational approaches. The omission of these questions also improved the efficiency of data collection. Other than the omission of these questions the questionnaires that were used were identical to those used in the studies by Jolley and his colleagues (see appendix 5). All interviews and questionnaires covered the following topics: time spent drawing, motivations for

drawing, preferred subject matter, enjoyment of drawing, drawing self-efficacy, art values, support children received for drawing and issues surrounding any possible decline in drawing.

The same survey was used when interviewing all children. However, when the youngest children (6- to -7-year-olds) were being interviewed the questions regarding the amount of time spent drawing in hours per week was omitted. It had been found in previous research (Rose et al., 2006) that this age group were not able to provide a meaningful response to this. All the teachers were interviewed using the teacher survey. However, when the specialist art teachers were interviewed (rather than the general class teacher who also was responsible for delivering the art and design curriculum) one question was omitted. This was the question about the total amount of time that the children spent in school on drawing activities, in a typical week. The specialist teachers could not be expected to have knowledge of the amount of time spent drawing across all lessons. Parents were provided with a parent questionnaire (one version used for all parents) and a freepost envelope in which to return it.

Procedure. Schools were contacted with details of the study and the requirements of participating to enquire whether they were interested in assisting with the project. All those schools who wanted to help were provided with consent forms and information sheets outlining the study and the requirements of participation. Once an informal conversation had taken place with the teachers who would be involved in the study, and it was ensured that they were willing to participate, information sheets and consent forms were provided for distribution to the parents of the pupils in their class. The teachers were asked to give these to pupils who would be happy to talk to the researcher and whose parents they thought would be reliable at returning information. These selection criteria were the same as those used by Burkitt et al. (2010) as it was considered important to ensure that a sufficient number of parent

questionnaires were returned.

Once parental consent had been given the schools were visited and in a separate room or quiet corner of the classroom the researcher carried out the interview with each child individually. Before the interview started it was explained to participating children what was involved in taking part and they were asked for their verbal consent. All children gave this. Interviews were recorded on a digital voice recorder and brief handwritten notes of the children's responses were made. This aided later transcription. Each interview lasted between 10 and 20 minutes, the interview schedule was adhered to but if children had difficulty understanding a question the researcher used her experience to rephrase the question. At the end of the interview children were given an envelope to take home to their parents/guardians containing the parent questionnaire, instructions on its completion and a freepost envelope for its return. Parents/guardians were instructed that either the parent or guardian that was most involved in the child's drawing should complete the questionnaire, or alternatively, they could complete it together. Teachers were individually interviewed by the researcher. Interviews lasted between 10 and 30 minutes. As with the children's interview the research schedule was adhered to, interviews were recorded using a digital voice recorder and notes were made to facilitate later transcription.

Analysis of interviews. Some questions on each of the surveys required participants to respond on a five-point Likert type scale. These responses were analysed using Chi squared test of association, with significant results followed up with z-tests to compare column proportions. Content analysis was used to analyse all open ended responses on all three surveys. This process had previously been carried out by the current researcher for all the data collected with Esther Burkitt and Richard Jolley. This had involved the listing of all idea units given in response to each question

on each survey. Two researchers⁷ then worked independently grouping all the idea units into themes for each question on each survey. These themes were then discussed by the two researchers and a final list of themes for each question was agreed. The number of themes for each question differed. Furthermore, the themes were established for each question independently and consequently themes for similar questions on different surveys sometimes differed. This ensured that the themes closely reflected the idea units given in response to each question on each survey.

To analyse the data in the current study a similar process was followed. The researcher listed all the idea units in the newly collected data from the Steiner pupils and older National Curriculum pupils. Once the idea units for each question on each survey had been identified these were then compared to the original list of agreed themes for each question on each survey from the previous work with Esther Burkitt and Richard Jolley. These lists included all the idea units, under each theme heading, which had originally been associated with that theme. Each idea unit from the new data was then placed, alongside the idea units from the original data set, under the headings of the theme to which each most closely corresponded. During this process it became apparent that for some questions a new theme was required to reflect the newly collected data. When this was required the idea units from the original data set were also carefully reviewed as there were instances when these were represented better by the added theme, for example some idea units were moved out of the theme of 'other' and placed under the new theme heading. The original and new themes, including the full list of idea units from the original and new data, were then reviewed by the same two researchers who had originally worked on the data reported in the Burkitt et al. paper. After discussion final lists of themes for each question on each survey, were agreed on. The final list of themes, with descriptors, can be found in

⁷ The current researcher and another PhD student.

Appendix 6.

All surveys were coded by the current researcher who scored which themes each participant mentioned in response to each open-ended question. To insure the reliability of these ratings the researcher who had assisted with finalising the list of themes also coded some of the surveys. Due to time constraints it was not practical for two independent raters to code the whole sample. While the impracticality of dual coding a large sample is recognised by authors such as Robson (2011) and Halgren (2012) no guidelines seem to exist for what proportion of the sample should be dual coded to assess interrater agreement. Consequently, the number of interviews to be rated by a second rater was determined by two factors; firstly recommendations for sample size and Kappa calculations based on power estimation and secondly proportions of samples that have been dual coded in previous research in this area. For power estimation to be carried out the desired level of interrater agreement and power level needed to be specified. Landis and Koch (1977) proposed guidelines for interpreting the level of interrater agreement as indicated by Kappa values, with values from 0.00–0.20 = slight, 0.21 - 0.40 = fair, 0.41–0.60 = moderate, 0.61–0.80 = substantial, 0.81– 1.00 = almost perfect agreement. Fliess (1981) and Cicchetti (1994) have proposed similar criteria. Consequently, based on these guidelines the desired value of Kappa for the current study is ≥ 0.6 . In terms of power the desired level is ≥ 0.8 , this is the level desired in most psychological research (e.g. Clark-Carter, 2010). With the desired power and interrater agreement level decided on the sample size guidelines proposed by Sim and Wright (2005) were consulted. These guidelines suggest that 22 interviews would be the minimum sample size required.

To further inform the decision of how many interviews should be dual coded previous literature in the area was consulted to ascertain the proportions of the total samples generally used. While some studies have reported just 10% (Cox, Koyasu,

Hiranuma & Perara, 2001) or 15% (Davis, 1997) of the total sample being double coded a more frequently used proportion seems to be 20% (Burkitt, et al. 2010; Krippendorff, 2004, Picard & Gauthier, 2012; Wang & Leichtman, 2000). Consequently for the 180 surveys from the children a 20% sample of 36 interviews were coded by a second researcher to insure that the coding scheme had been applied in a reliable and systematic manner. However, for the 80 parents surveys a 20% sample would have been just 16 questionnaires, this was not considered a sufficient sample size, consequently Sim & Wright's (2005) guidelines were referred to and a sample of 22 questionnaires were coded by a second rater. The number of interviews from the teachers was so low that a second researcher coded all 17 of these. To assess interrater reliability between the codings made by the two raters Cohen's Kappas were calculated for each theme on each question on each survey. This resulted in over 500 Kappa statistics being calculated, these are summarised in Table 5.3. The calculated Kappa statistics indicated that according to the guidelines by Landis and Koch (1977) agreement between the raters was at least 'substantial' ($0.61 > \kappa < 0.80$) and in many cases it was 'almost perfect' ($0.81 > \kappa < 1.00$). Consequently confidence can be had that the coding scheme has been applied in a consistent and reliable manner and the ratings of the current researcher have been used for all analysis.

Table 5.3.

Percentage of total number of Kappa statistics indicating ‘substantial’ and ‘almost perfect’ agreement⁸ for each survey.

	Substantial Agreement 0.61 > κ < 0.80	Almost Perfect Agreement 0.81 > κ < 1.00
Children’s Survey	34%	66%
Parents’ Survey	39%	61%
Teachers’ Survey	41%	59%

5.2 Children’s Drawing Attitudes and Practices

The results which are the focus of this Section are the attitudes and practices towards drawing, in particular: amount of time that children spend drawing, what motivates them to draw, the perceived benefits of drawing, what they enjoy about drawing, including favourite subject matter, what they dislike about drawing and their perceptions of their own drawing ability. Data collected from 6- to 16-year-old National Curriculum and Steiner pupils, using the surveys introduced in the previous Section, is presented and key between-school differences commented on. Furthermore, the findings presented are discussed and interpreted with reference to the curricula in the two school types and to previous research in this area.

5.2.1 Time Spent Drawing

Children, their parents and their teachers were asked to estimate the amount of time that the children spent drawing. It was anticipated that Steiner, compared to

⁸ Based on the guidelines of Landis and Koch (1977)

National Curriculum, pupils might spend more time drawing at school due to the increased emphasis on art throughout the Steiner curriculum. Furthermore, it was anticipated that the Steiner pupils might spend more time drawing at home due to additional encouragement from parents.

Pupils were asked to estimate how many hours (or parts thereof) they spent drawing in an average week at school and also at home. Only the older three groups of pupils were asked these questions, the 10-, 14- and 16-year-olds. This followed recommendations from Rose, Jolley and Burkitt (2006) who suggested that the youngest age group would be unable to give meaningful estimates in response to these questions. Figure 5.1, shows a graphical representation of the pupils mean estimates and the standard errors of these estimates. It appears from these graphs that Steiner pupils tended to estimate that they spend slightly longer than their National Curriculum counterparts drawing in an average week at school. Furthermore, the evidence suggests that at school the amount of time that pupils estimated increased with age as long as they continued to take part in art specific subject lessons (e.g. following a GCSE in the arts or regular art lessons in Steiner schools). However, it seems that as soon as pupils stopped taking regular art lessons, as indicated by the National Curriculum pupils at age 16 who have not opted to take art, the amount of time that they estimate spending drawing is notably lower. This decline is also evident in the amount of time that these pupils report spending drawing at home. Other between-school differences in the amount of time spent drawing at home seem to be less consistent, with potentially more interactions between age groups and school types.

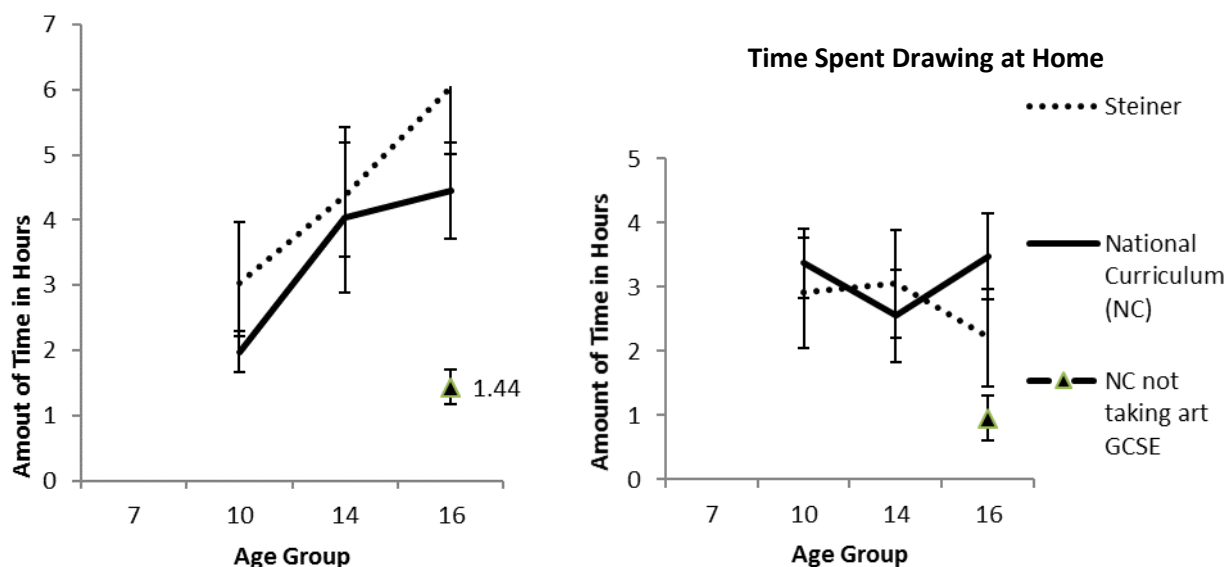


Figure 5.1. Means and Standard errors for the amount of time that children estimate they spend drawing at school (left hand graph) and home (right-hand graph).

Further examination of the time estimates provided by pupils revealed that the data did not meet parametric assumptions. For most age groups, and both school types, the distribution of estimates was positively skewed and variances were not sufficiently homogeneous. When outlying scores of six pupils (2 National Curriculum & 4 Steiner pupils) who gave very high estimates were removed there was still evidence of positive skew and the issues with homogeneity were still present. Furthermore, these remained after appropriate transformations (square-root and Log 10) had been applied to the data. Consequently it was decided that non-parametric tests would be more appropriate and powerful than their parametric equivalents. Additionally, this made it possible to analyse the complete data set, including the high estimates made by six of the pupils. Consequently Mann-Whitney U tests, using a Bonferroni correction, were used on the raw data to assess between-school differences. The differences in mean ranks and the Mann-Whitney U test results are presenting in Table 5.4. It is the

between-school differences which will be the focus of this section as significance of age related differences in the amount of time spent drawing at home will discussed in Section 5.5.

Table 5.4

Comparisons between school types (National Curriculum (NC) and Steiner) for the amount of time that pupils reported spending drawing at school in an average week.

		Difference in mean ranks	<i>U</i>	<i>z</i>	<i>N</i>	<i>p</i> adjusted $\alpha = .013$	<i>r</i>
Age 10	NC vs Steiner	-2.43	157	-0.675	38	.231	-.12
Age 14	NC vs Steiner	-3.80	162	-1.04	40	.314	-.16
Age 16	NC art vs Steiner	-1.55	184	-0.42	40	.680	-.07
Age 16	NC art vs NC non art	15.65	43.5	-4.26	40	<.001	-.70
Age 16	NC non art vs Steiner	14.35	56.5	-3.90	40	<.001	-.62

Overall the results presented in Table 5.4 indicate that there was no significant difference in the estimates of the amount of time spent drawing at school between pupils attending National Curriculum and Steiner schools except at age 16. In this age group those National Curriculum pupils who had opted not to take GCSE art estimated that they spent significantly less time drawing than both the Steiner and the National Curriculum pupils who are receiving regular art lessons.

To gain further insight into the amount of time spent drawing at the two school types teachers' estimates were considered. National Curriculum teachers estimated that their pupils spend on average 2.5 hours (range 1-5 hours) a week drawing. In comparison to Steiner teachers estimated that their pupils spent, on average, twice as

long on drawing activities (mean = 5 hours, range 4-7.5 hours)⁹. These provide some validation of the estimates provided by the children as the slight, but not significantly, higher estimates given by Steiner compared (4.27 hours) to National Curriculum (3.71 hours) pupils were reflected in the data collected from teachers.

Children's estimates for the amount of time that they spent drawing in an average week at home had the same issues with outliers, homogeneity of variance and distribution as the school estimates, consequently non-parametric Mann Whitney U tests were also used to analyse this data. The results of these are summarised in Table 5.5.

Table 5.5

Comparisons between school types (National Curriculum (NC) and Steiner) for the amount of time that pupils reported spending drawing at home in an average week.

		Difference in mean ranks	U	z	N	p adjusted $\alpha = .013$	r
Age 10	NC vs Steiner	4.46	155.5	-1.21	40	.231	-.20
Age 14	NC vs Steiner	-0.10	199	-0.03	40	.984	-.01
Age 16	NC art vs Steiner	8.42	108	-2.32	40	.021	.43
Age 16	NC art vs NC non art	14.2	58	-3.86	40	<.001	-.61
Age 16	NC non art vs Steiner	6.0	131.5	-1.65	40	.101	-.26

There were no significant differences in the amounts of time spent drawing at home among the younger pupils. When the results of the oldest pupils, the 16-year-olds, were considered there was some evidence of between-school differences.

Although the difference between the Steiner and the National Curriculum pupils who

⁹ A statistical comparison of teachers' estimates from the two school types has not been made due to low sample size.

were studying art was not significant at the adjusted alpha level, it did fall into the discussable region (Clark-Carter, 2010) and the effect size was medium (18%), suggesting that National Curriculum pupils taking an art GCSE are likely to estimate that they spend more time drawing at home than their Steiner school peers. Furthermore, National Curriculum pupils who have opted not to take an art GCSE report spending significantly less time drawing at home than their peers who are taking an art GCSE. However, there was no difference in the estimates that they make compared to those of the Steiner school pupils who were still receiving art lessons at school.

When parents' estimates of the amount of time that their children spend drawing at home are considered these, broadly speaking, support the estimates given by their children. A Mann-Whitney U test indicated that parents of 7-, 10- and 14-year-old National Curriculum pupils estimated that their children spend more time at home drawing compared to the estimates of comparable Steiner parents $U = 401.5, z = -2.36, N = 70, p = .018, r = -.28$. Although this difference is significant the effect size is only small ($r^2 = .08$) suggesting that there is very little difference. For the older age group, the 16-year-olds, there were insufficient numbers ($n=4$) of questionnaires returned by each group of parents. Consequently it has not been possible to analyse the differences at age 16 in parents' estimates.

Overall it seems that there are not as many differences in the amount of time that National Curriculum and Steiner pupils spend drawing at school and at home as was initially anticipated. Although there is much emphasis within the Steiner Curriculum on children engaging in drawing significant evidence for this has not been found in children's reports of the time they spend drawing at school. Instead the current research suggests that there are no differences between school types until age 16, when those National Curriculum pupils who have opted not to study art report

spending significantly less time drawing. When teachers' estimates are considered there is some tentative evidence for Steiner pupils spending more time drawing. However, this evidence is only tentative due to small sample size. Consequently it seems that the extent of any differences in the amount of time that pupils spend drawing at school between the two school types may be less than expected.

It has also been anecdotally commented on in the literature (Cox & Rowland, 2000; Rose, Jolley & Charmin, 2012) that Steiner parents may value art more highly than their National Curriculum counterparts and consequently may encourage their children to spend more time drawing at home. However, tentative evidence to the contrary has been found with results suggesting that National Curriculum pupils, and their parents may actually estimate that they spend more time than their Steiner school counterparts drawing at home. Nonetheless, the effect size for this difference is relatively small with approximately 8% of the variation in parents' estimates being accounted for by school type. Consequently, it seems that overall there are fewer between-school differences in the amount of time spent drawing at school and home than expected.

The evidence suggesting that there are few between-school differences does need to be treated with caution as this is based on estimates. These are inherently somewhat unreliable and this could particularly be the case as drawing is often a fragmented activity which is ingrained in numerous subjects and can take many forms (e.g. sketching a plan, drawing a diagram or geometric shape, 'doodling', drawing an expressive or realistic drawing, etc...). Additionally, it is a very time consuming and often solitary activity which means that estimates from teachers and parents may be less than accurate. One solution to gaining a more accurate insight into the amount of time that children spend drawing is for a record to be kept when it is happening, for example though keeping a drawing diary.

Studies which investigate the amount of time that children spend on different activities have had considerable success using a diary methodology (e.g. Robinson & Bianchi, 1997). These diaries have generally involved children and their parents being asked to record all the activities over the hours and minutes of a day in which the child engages. However, these studies have tended to categorize children's activities into quite broad categories, e.g. 'play', 'talking' and 'television' (Larson, 2001) and so not much insight can be gained into the amount of time that children spend on drawing, or even art activities in general.

As part of this PhD such a diary study for recording the amount of time that children spend drawing was piloted. Participants were recruited through letters to schools asking for volunteers. The diary focused on the child, however parents and teachers were asked to take responsibility for it and to assist the children with completing it. Participating children were between 6 and 16 years of age, consequently while the younger children will have required quite a high level of assistance from both teachers and parents, older children will have been able to do this with very little assistance. Participating families were sent three diaries (mid-autumn, spring and summer terms) and each time were asked to fill in the diary every day for a week. They were requested to record the amount of time that the child spent drawing at home, the amount of time that a parent sat with a child while they drew and the amount of time spent on homework involving drawing. A separate part of the diary, designed so it could be taken to school, also asked for the amount of time that the children spent drawing at school to be recorded each day. Although nearly 1000 letters were sent to participating National Curriculum and Steiner schools to be distributed on parents, only 50 families volunteered to participate, and only 29 families (17 National Curriculum and 12 Steiner) then returned at least one completed diary. As so few diaries were returned it was difficult to draw any useful, generalisable conclusions

about the amount of time that children spend drawing from this data. Furthermore, the low response rates suggest that in its current form this diary method for collecting data about the amount of time that children spend drawing was not an efficient or effective method.

An alternative methodology, which has been successfully used to investigate how children use their time, is the experience sampling method (ESM, for a review see Larson & Verma, 1999). This method involves older children, or the parent/caregiver of younger children, carrying an electronic pager that prompts them to record their current activity. Alternatively a researcher telephones them and asks what their current activities and experiences are. Both these methods provide reports of experiences at random times, typically over the period of one week. As the time samples are obtained at random they permit estimation of how participants spend their waking time (Csikszentmihalyi & Larson, 1987; Larson, 1989). Comparisons of data between ESM, time diaries and observation show strong convergence, and the method is considered to be valid and reliable at providing estimates into how young people spend their time (Larson & Verma, 1999). As well as being used to gain insight into how children distribute their time among different activities this method has also been used to investigate experiences of specific activities such as listening to music (Lamont, 2008). In the context of children's drawings ESM could provide a valuable opportunity to gain insight into more than just the time that children spend drawing. Individuals who were engaged in drawing at the sampling point, or very recently prior to the sampling point could be asked about what their motivation to begin the activity was, their likes and dislikes of their current drawing experience, the extent to which help and support were being provided and their satisfaction with the drawing they were producing/had produced. However, such a project would require significant

funding to support recruitment of participants and provision of pagers/mobile devices to facilitate data collection.

5.2.2 What Motivates Children to Draw?

The frequency and the amount of time that children spend drawing are likely to be influenced by the extent to which others around them suggest drawing. To investigate this all children were asked whether anyone suggested drawing to them, and why they thought that drawing might be being suggested. From Table 5.6 it can be seen that the individuals who most frequently suggested drawing were parents and that the number of children reporting this was similar for both National Curriculum and Steiner pupils. This data reflects the findings of Kauffmann and Hoffman (1992) who, without presenting data to support their conclusion, summarised that “many parents reported that their [4-year-old] children relied on others’ suggestions to ‘do art activities as much as initiating activities on their own’”. Consequently it seems that while some young children report that their motivation to draw comes from adults, and consequently adult involvement is required for their engagement in drawing, others choose the activity without prompting from anyone else. Furthermore, among older children it seems that parents suggested drawing as an activity much less frequently. When data from the older children was considered it seems that generally only those parents of National Curriculum pupils taking an art GCSE tended to suggest drawing. From Table 5.7 it can be seen that this may reflect the parent’s desire for them to improve their drawing skill and consequently may be linked to a wish for them to do well in their GCSE exam.

Table 5.6

Children's reports of whether anyone at home suggested drawing as an activity for the child to do.

	Age 7 to 14		Age 16		
	National Curriculum n= 60	Steiner n= 60	National Curriculum Art n =20	National Curriculum non-art n =20	Steiner n =20
No one	47%	57%	65%	100%	82%
Mum	38%	35%	30%	0	12%
Dad	13%	8%	5%	0	12%
Sibling/cousin	8%	7%	0	0	0
Grandparent	5%	2%	0	0	0

Table 5.7

Children's responses to the question 'why do you think that [person who the child had indicated in the previous response] suggests drawing as an activity for you to do?'

	Age 7 to 14		Age 16		
	National Curriculum n= 31	Steiner n= 25	National Curriculum Art n =7	National Curriculum non art * n =7	Steiner †
Occupied	23%	28%	0%	-	-
Social motivation	29%	24%	14%	-	-
Drawing has benefits	6%	28%	0%	-	-
Improvement	19%	8%	29%	-	-
Don't know	19%	4%	14%	-	-

* No data reported for National Curriculum non art as no pupils reported anyone suggesting drawing as an activity

† No data reported for Steiner pupils as only 3 pupils reported that anyone suggested drawing to them.

Those children who reported that drawing was an activity suggested to them by others were asked why they thought the person suggesting it wanted them to engage in drawing. Children's responses to this are represented in Table 5.7. Overall the most commonly reported reasons, regardless of school type, were to keep them 'occupied' and 'social motivation' (this theme included comments about drawing with others as well as drawing pictures for others, e.g. as a gift). Steiner school pupils seemed to be more aware of the values that others' placed on drawing and in particular the 'benefits associated with drawing'; reporting that those who encouraged them to draw did so with these benefits in mind. This reflects the high regard for the arts which is fundamental to the Steiner curriculum (Nobel, 1991). Furthermore, as parents of Steiner school pupils are encouraged to have an appreciation of the underlying pedagogical principles (Clouder & Rawson, 2003) they too may be educating their children about the value and potential benefits of drawing. It is also notable from Table 5.7 that more National Curriculum than Steiner school pupils were unsure why drawing might be being suggested to them, as reflected by the greater percentage of comments which were coded in to the 'don't know' category. This could be further evidence of not only the awareness among Steiner parents, but also their children's awareness and confidence in talking about the wider benefits of drawing.

National Curriculum pupils reported more frequently than Steiner pupils that drawing was suggested to them so that they could improve their drawing skills. This was particularly apparent among the older National Curriculum pupils who had chosen to take an art GCSE . It could be argued that this difference reflects the way that drawing is taught in the two school types. Whereas in National Curriculum schools art is a separately timetabled lesson for all pupils and for a GCSE pupil can be a distinct subject that they either opt to take or not take, in Steiner schools there are no separate art lessons for pupils up to the age of about 12-years-old, instead the aim is to include

the arts in the teaching of all subjects. Consequently the approach to drawing is embedded and a more holistic approach is taken rather than art being separated out as a distinct subject, with a particular skill set requiring development.

In addition to being motivated to draw by the suggestions of others, children also choose to spend time drawing based on their own internal motivations. These were investigated in the survey study as all children were asked what made them decide to draw. Table 5.8 summarises the children's responses to this question. Focusing on the responses from the younger pupils, the 7- to 14- year-olds, it is evident that children often draw to pass the time, for instance when they are bored or unsure what else to. This motivator was reported more frequently by Steiner compared to National Curriculum pupils. A further motivator reported more frequently by the Steiner pupils was social motivation, including drawing with friends and family members and being asked to draw by adults or other children. National Curriculum pupils seemed to be more motivated by visual stimuli with 'seeing things' that they want to draw being the second most frequently reported motivator for this group. Furthermore, National Curriculum pupils frequently reported that motivation came from seeing electronic images, such as those on the television, computer or games consol. Motivation from electronic images was a clear area of between-school differences as only one Steiner pupil (in the age 16 group) reported this as a motivator.

Table 5.8

Children's responses to the question 'what makes you decide to draw?'

	Age 7 to 14		Age 16		
	National Curriculum n= 60	Steiner n= 60	National Curriculum Art n =20	National Curriculum non-art n =20	Steiner n =20
Pass the time	27%	37%	30%	25%	25%
Social motivation	5%	17%	35%	25%	10%
Seeing things	22%	15%	10%	10%	30%
Electronic images	17%	0%	10%	0%	5%
Imagination	15%	18%	15%	10%	35%
Expression of ideas & emotions	2%	0%	0%	0%	15%
Enjoyment	8%	12%	0%	5%	0%
Good at drawing	5%	2%	5%	5%	10%
Don't know	13%	10%	15%	15%	0%
Other	7%	12%	5%	10%	10%

A further common motivation for drawing reported by children from both school types and all age groups was 'imagination'. This theme was particularly common among the older Steiner school pupils and also much more common than the theme of 'expression of ideas & emotions' which only the oldest groups of Steiner school pupils reported. These higher frequencies of comments relating to imagination and expression from the older Steiner pupils probably reflects the considerable emphasis on these in Steiner schools

Children's motivation to draw things that they have seen, including characters and scenes from electronic media, was also reflected in the semi-structured interviews reported in Chapter 4. For instance, it was evident from the interviews that sources of inspiration for what children decided to draw included objects in the environment

around them at the time of drawing and objects that they had recently seen. This seems to relate to children frequently reporting the motivation of ‘seeing things’ that they want to draw. Furthermore, there was also indication that seeing electronic images can motivate children to draw with extracts from the interviews referring to inspiration for drawing coming from the media, for example Star Wars and Harry Potter. The between-school differences which were evident from the survey data were not as clearly represented within the interview data. This could be explained by the different context and slightly different purposes of the questions. In the survey children were being asked about their spontaneous drawing activities, i.e. those that they chose to engage in their own time, whereas in the interviews children were being asked about a specific free drawing, i.e. a drawing that they were making in response to the experimenters. Furthermore, between school differences may not have been as evident in the interview due to the considerably smaller sample size.

In conclusion, it appears that although some children draw as a result of being encouraged to by others, usually adults, many children self-select drawing as an activity. Furthermore, children’s own motivations for engaging in drawing are quite varied and range from engaging in drawing simply to pass the time to being inspired to depict scenes or objects from their surroundings and their imagination as well as drawing for pure enjoyment or self-satisfaction in the activity. Although fewer Steiner, compared to National Curriculum, school pupils reported having drawing suggested to them, those that did were more likely to report that it was suggested due to an awareness of the wider benefits of drawing. This appears to reflect the emphasis placed on these wider benefits within the Steiner curriculum. This emphasis on drawing may also be reflected in the children’s own motivations to draw as Steiner pupils more frequently reported that they drew as a result of social motivation. This might be due to those around them valuing drawing and encouraging drawing more

frequently than experienced by the National Curriculum schoolchildren. On the other hand, National Curriculum school pupils were more likely to report that drawing was suggested so that they could develop and improve their drawing skills. It might be that these children see drawing as a more separate and distinct skill, possibly reflecting the way that it is taught as a separate subject lesson. A difference in the home environments of the pupils attending the two school types also appeared to be apparent in their reported motivations for drawing as National Curriculum pupils were much more likely than Steiner school pupils to comment on inspiration coming from electronic media, such as television programmes, games and films.

5.2.3 Benefits of Drawing

Some of the children's motivations for drawing reflected commonly held perceptions of the benefits of drawing such as expression and enjoyment. Furthermore, when asked why others suggested drawing as an activity nearly a third of Steiner pupils thought this was due to the perceived benefits of drawing. In order to gain further insight into these perceived benefits of drawing all respondents to the survey were asked what they thought the benefits of drawing were. It was anticipated that those associated with the Steiner schools would perceive there to be more benefits, placing particular emphasis on the creative and expressive value of drawing. Additionally, it was predicted that the Steiner teachers and parents would perceive drawing to be of greater importance than their National Curriculum school counterparts.

The children's responses to the question 'what do you think are the benefits of drawing' are summarised in Table 5.9. Most children believed that there were benefits to drawing, as very few reported that there were no benefits. The range of benefits reported was wide; this is evident from the number of themes which were identified from the responses to this question. Additionally there were many individual

responses which represented disparate benefits; these idiosyncratic responses are represented by the theme 'other'. Nearly a quarter of Steiner school pupils made responses which were coded in this theme, suggesting that their perceptions of the benefits of drawing were particularly diverse. From the responses of the younger pupils it was also apparent that approximately a quarter of Steiner (27%) and a fifth of National Curriculum (18%) pupils struggled to respond to this question and were unsure what the benefits of drawing might be, resulting in their response being coded as 'don't know'. These relatively high levels of uncertainty may reflect the younger children's difficulty in understanding this question. This interpretation is supported when the results of the older children are considered as only one older child responded that they were unsure.

Table 5.9

Children's responses to the question 'what are the benefits of drawing (or for the younger children, 'what good things come from making a drawing or 'what might drawing help you with')?'

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non-art	Steiner
	n= 60	n= 60	n= 20	n= 20	n= 20
Expression & release of emotion	22%	15%	25%	20%	55%
Imagination & creativity	7%	20%	20%	5%	25%
Calming & relaxing	17%	10%	25%	30%	45%
Enjoyable activity	8%	7%	5%	5%	5%
Aids learning and understanding	8%	10%	15%	20%	30%
Improved drawing skill	10%	3%	10%	0%	10%
Draw for others	5%	7%	10%	20%	15%
Communication Aid	0%	3%	5%	0%	10%
Career	5%	12%	25%	5%	0%
Prevents boredom	5%	10%	0%	5%	0%
It is exercise	5%	2%	0%	0%	0%
Handwriting & pencil skills	7%	3%	0%	0%	0%
Don't Know	18%	27%	0%	5%	0%
Other	10%	22%	5%	20%	10%
No Benefits	2%	0%	5%	10%	0%

The most frequently perceived benefit reported by the National Curriculum pupils was 'expression and release of emotion', whereas for the Steiner school pupils it was 'imagination and creativity'. Consequently, it appears that both groups tend to value drawing for its freedom and opportunity to depict something personal to them, whether it was representing their thoughts and emotions or their imagination and creativity. Among the younger children it does not seem that the prediction that the Steiner pupils would place more emphasis on expression and creativity is supported –

instead it seems that both groups of pupils recognise these as benefits of drawing.

However, when the responses of the older pupils' are considered the frequency with which the Steiner pupils make comments relating to expression and release of emotion is striking as over half of the pupils made comments reflected by this theme. It might be that these older pupils are more aware of the values of the pedagogy that they are part of compared to the younger pupils.

The parents' responses to the same question 'what are the benefits of drawing?' are summarised in Table 5.10. Like the reports of the children the most frequently reported perceived benefits are 'expression and creativity' and 'imagination'. Both of these themes were reported more frequently by parents of Steiner pupils compared to parents of National Curriculum pupils. This trend of the frequencies of responses being higher among the parents of Steiner compared to National Curriculum school pupils is reflected across all themes. This is the result of Steiner parents listing more benefits in comparison to the National Curriculum parents. This supports the prediction that Steiner parents would report more perceived benefits of drawing. This, and the frequency of comments about drawing benefiting expression, creativity and imagination, supports the anecdotal comments made by Cox and Rowlands (2000) and Rose, Jolley and Charmin (2012) that Steiner parents may value the arts more highly.

Table 5.10

Parents' responses to the question 'what are the benefits of drawing?'

	National Curriculum	Steiner Curriculum
	n = 41	n = 39
Expression	40%	65%
Creativity & imagination	19%	38%
Relaxation & enjoyment	31%	43%
Pride & confidence	48%	58%
Art is therapeutic	5%	5%
Social activity	7%	8%
Cognitive skills	0%	18%
Drawing skills	2%	25%
End product	2%	15%
Don't know	7%	0%
Other	12%	25%

The range of benefits associated with drawing reported by the teachers reflect those reported by the children and their parents. Teachers from both school types recognised the value of drawing for expression (National Curriculum 62%, Steiner 80%). However fewer commented on the creative and imaginative value of drawing (National Curriculum 8%, Steiner 20%). One theme that teachers emphasised more than children and parents was the value of drawing for the wider development of cognitive skills including understanding of other subject matter (National Curriculum 23%, Steiner 60%). It is likely that this greater emphasis on the role that drawing can play in developing cognitive skill and understanding reflects the teachers' role in developing these skills. Furthermore, their experiences in the classroom of using drawing activates to facilitate such development may underpin these comments. Additionally, the emphasis within the Steiner curriculum on the value of drawing in increasing children's learning and understanding of all subject matter appears to be reflected in the higher frequency with which teachers in these schools made such

comments. Due to the small number of teachers taking part in the survey their responses must be treated with some caution as they may not be representative. Nonetheless it appears that the predictions made were supported as Steiner teachers tended to report a greater number of benefits (as reflected by the higher percentages) and particularly emphasised the expressive value of drawing compared to the teachers in National Curriculum schools

It seems that overall parents and teachers perceive there to be many benefits of drawing. However, this does not provide us with insight into how important they perceive drawing to be in the context of other subjects taught at school. To gain insight into this all parents and teachers were asked ‘How important do you see your child’s (children’s) art education within the whole of your child’s (their) education?’. The teachers and parents responded to this question on a 10-point scale, where 1 was ‘no importance’ and 10 was ‘extremely important’. Responses indicated that the parents of Steiner school pupils (mean = 8.92, std = 1.17) thought that the drawing was significantly more important than the parents of National Curriculum school pupils (mean = 6.93, std = 1.72), $t(68) = 5.69, p < .001, d = 1.66$. A similar pattern of responses was found when the teachers ratings were considered as Steiner teachers (mean = 9.67, std = 0.25) rated drawing as more important than their National Curriculum counterparts (mean = 8.08, std = 2.14). However, as the sample of teachers was small statistical analysis could not be carried out to confirm this finding. Nonetheless it does seem that overall the prediction that parents and teachers of Steiner pupils value drawing more highly than their National Curriculum counterparts is supported. This reflects the increased emphasis on drawing present throughout the Steiner Curriculum. Furthermore, perceptions of the benefits also seem to reflect this greater emphasis on the value of drawing as Steiner parents and teachers report more perceived benefits than their National Curriculum school counterparts.

Although parents and teachers appear to value the arts and the benefits reported by all three parties are in line with those widely reported benefits based on case studies and anecdotal evidence (e.g. Barnes, 2002; Cox, 2005; Goodnow, 1992, Jolley, 2010; Mathews, 2003), further scientific research is required to evaluate the evidence for these perceived benefits of drawing. So far this evidence has been somewhat mixed and has tended to focus on the perceived cognitive, and in particular academic benefits. For example, no evidence has been found for drawing enhancing academic achievement (e.g. Vaughn & Winner, 2000) or creative thinking (Moga, Burger, Hetland & Winner, 2000). However, more recent research does suggest that drawing can play an important role in education (e.g. Ainsworth, Prain, & Tytler, 2011; Hubber, Tytler, & Haslam, 2010). These mixed findings can most likely be explained by the different methods used to evaluate the perceived benefits of drawing. For example, Vaughn & Winner used mean Standard Attainment Tests scores to assess whether drawing benefited academic achievement whereas Hubber, et al. reported observational data concluding that students engaged more in class, discussed at a higher level and performed better in their work- books. There is undoubtedly a need for further empirical research in this area to evaluate the wider perceived benefits of drawing, in particular the social and emotional aspects.

5.2.4 Enjoyment of Drawing

When asked about what motivates them to draw some children directly talk about their enjoyment of drawing, see Table 5.8 above. Additionally, this was mentioned by children and teachers as a benefit of drawing, see Tables 6.9 and 6.10. Furthermore, the amount of time that children spend drawing, and the extent to which the activity is self-initiated (see Table 5.6) suggest that the majority of children do, as the literature suggests, enjoy drawing. This is confirmed in the children's own reports as when asked to what extent they enjoyed drawing children in the 7, 10 and 14 year

old age groups, across both school types, generally gave very positive responses indicating that they liked drawing a lot. This can be seen in Figure 5.2 below. The similarity in the responses between school types is confirmed by a Chi squared test of association, $X^2 (1, N = 111) = 0.001, p = .981, r < .01$ ¹⁰. When the data from the 16-year old pupils was considered it was evident that while the Steiner pupils and National Curriculum pupils taking art were still very positive about their enjoyment of drawing those pupils attending National Curriculum schools and not taking art were much less positive. The lower enjoyment levels of these National Curriculum pupils not taking art was also confirmed by a Chi squared test of association, $X^2 (4, N= 55) = 20.50, p <.001, r=.60$ ¹¹, with follow up z-tests indicating that pupils not studying the arts were significantly more likely to respond that they neither liked nor disliked drawing ($z = 3.0, p = .002$) and less likely to respond that they liked drawing a lot ($z = -2.3, p = .021$). Consequently, this data suggests that pupils who are still receiving regular art lessons at school are generally positive about their enjoyment of drawing, but that once they opt not to study art their reported enjoyment of drawing decreases.

¹⁰ For this analysis the 5-point scale was reduced as no pupils reporting that they liked drawing 'not at all', only three (1 NC & 2 Steiner) that they liked drawing 'not very much' and six (2 NC & 4 Steiner) that 'they neither liked nor disliked drawing'. This data was not included in the X^2 test of association as this would have resulted in the expected frequency assumption being violated. Consequently the Chi^2 was a 2 (like a little, like a lot) x 2 (National Curriculum, Steiner) test of association.

¹¹ Again it was necessary to reduce the 5-point scale in order to carry out statistical analysis and meet the assumption of expected frequencies. Only one pupil (Steiner) reported that they liked drawing 'not at all' and four that they liked drawing 'not very much' (1 NC and 3 NC non art). Consequently the Chi^2 was a 2 (like a little, like a lot) x 2 (National Curriculum, Steiner) test of association.

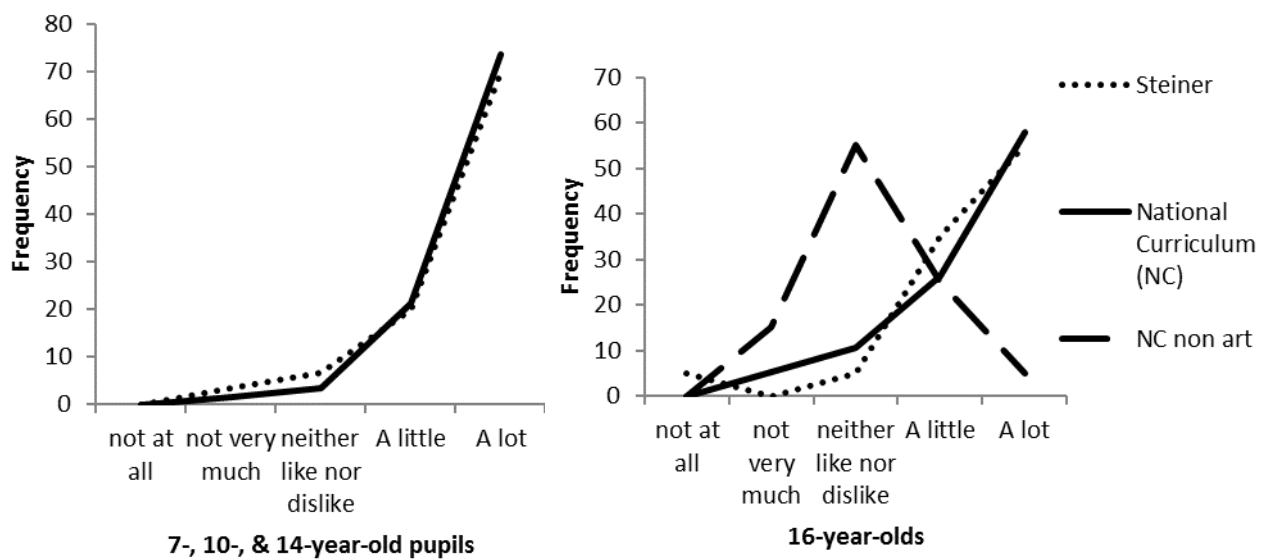


Figure 5.2. Extent to which Steiner and National Curriculum pupils enjoy drawing: as reported by the children on a 5-point likert type scale.

The generally positive reports from the children reflect the positive reports found by Goodlad (1984) and were also supported by the reports made by their teachers. Of the National Curriculum teachers interviewed in the current study 64% reported that ‘almost all’ their pupils enjoyed drawing while the remaining 36% reported that ‘more than half’ enjoyed drawing. The Steiner teachers interviewed were even more positive with all reporting that ‘almost all’ their pupils seemed to enjoy drawing. These reports were only from the teachers of the pupils who were still receiving regular art lessons.

To gain further insight into reported enjoyment of drawing children were asked what it was about drawing that they liked. Children’s responses to this question can be seen in Table 5.11. Many children, particularly among the 7- to 14-year-olds, made quite general comments about their like of drawing, for instance saying things like ‘it’s fun’, ‘it’s interesting’ and ‘I just like it’. These comments were all coded in the ‘general I like drawing’ theme and this was the most frequently reported reason for enjoying drawing among both National Curriculum and Steiner pupils. The high

frequency with which children commented on generally liking drawing closely reflects previous research in this area by Watts (2005). It also suggests that some children may struggle to articulate what it is that they like about drawing.

Table 5.11

Children's responses to the question 'why do you like drawing?'

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non-art	Steiner
	n= 60	n= 60	n =20	n =20	n =20
General I like drawing	23%	23%	10%	10%	5%
Freedom	15%	17%	15%	10%	30%
Imagination & creativity	12%	13%	15%	5%	10%
Expression	5%	15%	20%	15%	15%
Appreciation from self/other	12%	12%	10%	15%	20%
Creates sense of well being	10%	12%	15%	15%	35%
Technical skills	13%	12%	0%	10%	5%
Improvement and progress	10%	8%	0%	5%	5%
Passing the time	8%	10%	10%	15%	10%
Don't know	8%	12%	5%	10%	0%

When children gave more detailed answers about why they like drawing the most frequent response, across school types, was the 'freedom' involved in drawing. Comments in this theme reflected children's experiences and enjoyment of independence in terms of the choices about what to draw, how to draw and there being 'no right or wrong' in drawing. This sense of freedom was further echoed in children's other comments about why they like drawing. For instance, the third and fourth most popular categories of responses, 'imagination and creativity' and 'express

their own ideas and feelings', reflected their sense of freedom in choosing what to depict. It is notable that expression is commented on three times as often by the 7- to 14-year-old pupils attending Steiner compared to National Curriculum schools. This could be explained by the greater emphasis that is placed on expression throughout the Steiner Curriculum, particularly in the arts. However, when the older pupils are considered there is little difference in the frequency with which 16-year-olds comment on expression. It could be that when the National Curriculum pupils are taught by art specialists and spend more time doing independent project work for their GCSE coursework that the differences in the opportunities for, and extent to which, expression is encouraged differs little between the two school types. The data would support this explanation as it appears that the frequency with which Steiner pupils comment on expression remains consistent and that it is the frequency of comments from the National Curriculum pupils that increase among the 16-year-olds.

There were some between-school differences among the older pupils. In particular a higher number of Steiner compared to National Curriculum pupils comment on the sense of 'freedom' that drawing provides them with and also the 'sense of well-being' that engaging in drawing created for them. Potentially this could be accounted for by the emphasis within National Curriculum schools of meeting the assessment criteria of a particular examination board. In contrast Steiner pupils may be experiencing more freedom as there is no focus on upcoming examinations due to the 16-year old pupils not taking any exams involving art¹².

Although the anticipated between-school differences in expression were evident among the younger pupils it is surprising that there were not more notable between-school differences in imagination and creativity as considerable value and

¹² The Steiner school pupils participating in this study were enrolled in a limited range of GCSEs not including the arts – this is common practice among Steiner schools nationally as recognised by the Steiner Waldorf School Fellowship (2012). The Upper school. Retrieved 24th October 2012 from <http://www.steinerwaldorf.org/upperschool.html>

emphasis is placed on these in Steiner schools. However, it could be that due to this emphasis running throughout the curriculum that the pupils experience considerable opportunity to be imaginative and creative and therefore they do not particularly associate this as something they enjoy about drawing. In contrast, for the National Curriculum the opposite could be true and the art lessons and time spent drawing may be time in which they experience greater opportunity to be imaginative and creative compared to their other lessons.

When parents were asked why they thought that their children enjoyed drawing their views reflected those of the children with popular responses being ‘imagination’ and ‘expression’. Interestingly more Steiner parents made comments reflecting ‘imagination’ being the source of enjoyment whereas more National Curriculum parents made comments reflecting ‘expression’. The data from the parents is summarised in Table 5.12. From this it can also be seen that many parents also made comments reflecting the extent to which their children generally enjoyed drawing. Comments in this theme were more frequent among parents of Steiner compared to National Curriculum pupils and related to children finding it enjoyable and relaxing. Consequently, this theme quite closely reflects the comments made by the children pertaining to drawing ‘creating a sense of well-being’. Some parents talked about specific subject matter that their children enjoyed drawing and this type of response was more common among the parents of National Curriculum compared to Steiner pupils. Similarly more parents of Steiner pupils made comments which reflected the theme of drawing self-efficacy, for instance talking about their child taking pride in their drawings and enjoying it because they perceive that they are good at drawing.

Table 5.12

Parents' comments for why they perceive that their children like drawing.

	National	
	Curriculum	Steiner
	n = 41	n = 39
Imagination	17%	23%
Expression	19%	13%
Enjoyment & self-development	31%	36%
Specific subject matter	26%	18%
Social motivation	17%	18%
Drawing self-efficacy	7%	18%
Technical skills	7%	8%
Doesn't like drawing	5%	5%
No response & don't know	2%	3%
Other	14%	13%

Teachers were also asked what their pupils like about drawing. The most frequent responses from the National Curriculum teachers were 'freedom' (38%), 'break from academic subjects' (38%) and 'not having to write' (38%). So although many of these teachers recognised children's enjoyment of the freedom that drawing gave them it seems that this may be linked with the extent to which they perceive that pupils enjoy drawing because it is not something else (i.e. academic or writing) rather than actually enjoying drawing for drawing's sake. When teachers did comment on aspect of the drawing process that children enjoyed the most frequent response was imagination and expression (15%). Among Steiner teachers imagination and expression was the most commonly reported theme and in comparison to the National Curriculum school teachers this was reported more frequently (60% of Steiner compared to 15% of National Curriculum teachers). Individual Steiner teachers also

commented on the freedom and sense of well-being that children enjoyed when participating in drawing.

When the responses from all three parties, children, their parents and their teachers, are considered three key themes are dominant; 1) children's general liking of drawing, e.g. finding it fun and enjoyable, 2) children's enjoyment of imagination and expression in drawing and 3) the sense of freedom created by drawing. There has been little previous research investigating the reasons that children enjoy drawing to compare the present data with. Watts (2005) did however, ask children a similar question, 'why do children make art?'. Responses to this question bear striking similarity to the current findings, with the most frequently reported response being 'because it is fun'. When the responses of the older children in Watts' sample, the 11-year-olds, were looked at there was evidence that children were becoming more aware of the expressive quality of art, with 16% of pupils saying that they make art to communicate or express themselves. Considering the wider age range of the current sample it seems that these results are supportive of one another with a general liking of drawing and the opportunity it offers for freedom, imagination and expression being a popular theme in the current data set.

As well as asking children, parents and teachers about what children liked about drawing these three parties were also asked about what children did not like, or found difficult, about drawing. From Table 5.13 it can be seen that although nearly a quarter of all children reported that there was nothing that they didn't like or had difficulty with, many more, particularly in the older age group responded with comments reflective by the theme 'mistakes'. This included comments such as the drawing not turning out as they wished it to look, not looking 'right' and 'going wrong'.

Table 5.13

Children's responses to the question 'is there anything that you don't like or find difficult about drawing'

	Age 7 to 14		Age 16		
	National Curriculum n= 60	Steiner n= 60	National Curriculum Art n =20	National Curriculum non-art n =20	Steiner n =20
No difficulties	20%	23%	25%	5%	5%
Mistakes	23%	28%	50%	40%	60%
Lack of drawing self-efficacy	2%	12%	5%	30%	10%
Techniques	17%	7%	5%	5%	5%
Specific things	23%	15%	0%	10%	10%
Materials	3%	7%	10%	15%	20%
Lack of freedom	7%	3%	5%	0%	10%
It taking too long	12%	8%	5%	5%	5%

Slightly more Steiner pupils made comments reflecting the theme 'mistakes' compared to National Curriculum pupils. This lack of satisfaction with the drawings that they produced was further reflected in the theme 'lack of drawing self-efficacy' into which many more comments from Steiner compared to National Curriculum pupils were coded. Comments in this theme, 'lack of drawing self-efficacy' included those that expressed dissatisfaction with overall drawing ability, e.g. 'I am just not very good at it' and also comments identifying a mismatch between own ability and the skills required for drawing, e.g. drawing is hard. Although more Steiner pupils made comments about a perceived lack of drawing self-efficacy it was the National Curriculum pupils who made more comments about finding particular techniques difficult, mentioning techniques such as perspective, adding detail and shading. More National Curriculum than Steiner pupils also talked about finding particular subject

matter difficult to draw. It seems therefore from these themes that many pupils, from both school types, experienced drawing as being something that was difficult and required skill. While Steiner pupils were more likely to cite more general problems, (e.g. 'making mistakes' and 'lack of drawing self-efficacy') National Curriculum pupils were more specific about the difficulties they experienced with particular subject matter and techniques. This difference between the two school types could be a reflection of the drawing tasks prescribed in the two schools. In National Curriculum schools it could be that children were given greater direction about what to include in their drawing whereas in Steiner schools the choice of subject matter is left more to individual children, at least until approximately the age of 12 when representational drawing skills begin to be taught (Jünemann & Weitmann, 1977). Consequently, if it is that the Steiner pupils have more freedom in their drawing they may experience a more general dissatisfaction whereas the National Curriculum pupils may be aware of specific problems relating to specific drawing tasks or activities which they are instructed to do.

The children's parents were also asked for their perceptions of what their children found difficult or did not like about drawing, these responses are summarised in Table 5.14. Consideration of these suggest that parents of National Curriculum pupils are more likely to report that there was nothing that their children disliked or found difficult about drawing compared to parents of Steiner pupils. Furthermore, almost half of the parents of Steiner pupils reported that their children found drawing difficult and became frustrated with it as they lacked drawing self-efficacy or believed that they were not meeting their own expectations. This seems to reflect the reports of some Steiner pupils who comment about lower perceived drawing ability and feeling that they made 'mistakes' while drawing (see Table 5.13 above). Similarly reflecting the children's responses are National Curriculum parents' reports that their children

had difficulties with specific techniques or subject matter, reflecting the greater number of National Curriculum compared to Steiner pupils who reported these difficulties. Overall it does seem that parents' perceptions generally mirror the reports given by their children.

Table 5.14

Parent's reported perceptions of what their children dislike or find difficult about drawing.

	National	
	Curriculum n = 41	Steiner n = 39
Nothing	26%	13%
No response & Don't know	14%	8%
Not meeting own expectations	19%	48%
Specific subject matter	19%	10%
Techniques	19%	13%
When there is lack of freedom	2%	18%
Other	7%	8%

A further notable difference between the reports of National Curriculum compared to Steiner parents is the higher number of Steiner parents who reported that their children did not like drawing when there was a lack of freedom, for instance when the content, style, or time spent on drawing was decided by others with little to no input from the child. Further support for this finding is also evident among the reports from teachers. None of the National Curriculum teachers commented on children disliking a lack of freedom in their drawings, however, 60% of Steiner teachers commented on this. This finding is intriguing as it could be seen to suggest that Steiner pupils experience less freedom in their drawing experiences compared to

National Curriculum pupils. However, when the curricula are considered it would seem that Steiner children experience considerably more freedom in drawing and similarly that their parents are discouraged from intervening or directing the child's drawing experiences. Consequently, alternative interpretations of the finding maybe that more Steiner pupils dislike drawing when there is a lack of freedom, whereas potentially the National Curriculum children are more accustomed to a lack of freedom and it does not impede their enjoyment of drawing. A further explanation could also be that it is actually the art values of Steiner teachers and parents, and in particular their belief that children should be allowed considerable freedom in their drawing experiences, which might be biasing their perceptions of their child's likes and dislikes of drawing. In order to investigate this finding and possible explanations for the parents' reports further research would be required. This research would benefit from being qualitative in nature as this would allow parents to explain their perceptions and the reasons for them more fully.

For other factors perceived by teachers to explain children's dislike or difficulties with drawing there were few between-school differences. These factors included 'specific subject matter' 'not meeting own expectations', 'not meeting the expectations of others' and the 'concentration/patience required'. It does seem that all these reasons relate to a perception of drawing being hard, something which requires concentration and patience and where it is not always easy to achieve the desired outcome.

Overall the comments from the children, and also many of the teachers and parents seem to suggest an appreciation of drawing being a difficult task which requires skill. Furthermore, although children, their teachers and parents, comment on enjoyment of the freedom of drawing and the opportunity it provides them with for expression and imagination they do seem to experience a feeling of failure and

believing that they have ‘made mistakes’. For children these experiences appear to be the most common aspect that is disliked or found difficult about drawing. This finding is replicated among children from both school types and is also echoed in the perceptions of teachers and parents from National Curriculum schools. However, among the parents and teachers of the Steiner school pupils there is considerable emphasis on children disliking or finding drawing difficult when they experience a lack of freedom in their drawing activities. The motivations for these comments are not clear and further research would be needed to identify whether it is in fact a difference in the children’s experiences and responses to drawing activities or actually the parents and teachers own beliefs about how children should experience drawing. Further research into children’s experiences of enjoyment, displeasure and frustrations when drawing would also be beneficial as there is little previous research in the area to compare the findings presented within this section to.

5.2.5 Drawing Self-Efficacy

From the reports of children, their teachers and their parents it is evident that some children have low drawing self-efficacy and that this can be a reason for them to dislike drawing. Further insight into pupils’ perceptions of their own drawing ability can be gained from their responses to the question ‘How good do you think you are at drawing?’ Their responses are presented in Figure 5.3.

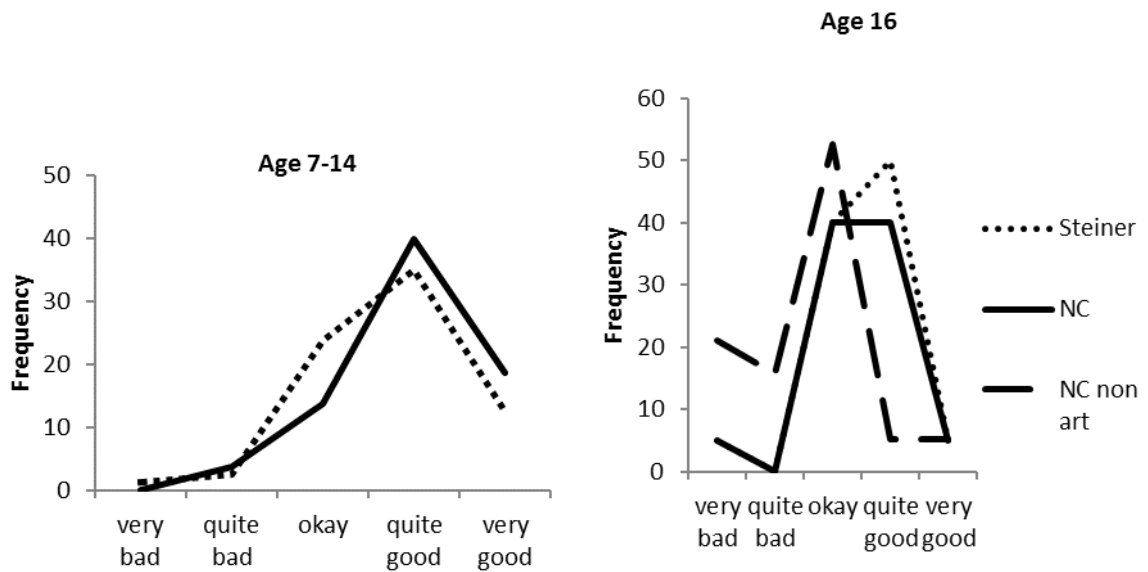


Figure 5.3. Children's responses to the question 'how good do you think that you are at drawing?'

It can be seen from Figure 5.3 that the majority of pupils up to the age of 14 think that they are quite good at drawing. However, when the responses of the younger pupils are compared to those of the 16-year-olds it does appear that older pupils are more cautious about their drawing ability and are increasingly likely to say that they are 'okay' at drawing. This apparent decline in perceived drawing ability will be discussed more fully in the Section 5.4 which focuses on the decline of drawing behaviour.

Few between-school differences are evident among the 7- to – 14- year-old pupils' responses and this is confirmed by a Chi squared test of association , $X^2 (2, N = 116) = 3.05, p = .218, r = .28^{13}$. However, when the responses of the older children are considered a Chi squared test of association, $X^2 (4, N = 56) = 14.30, p = .006, r =$

¹³ For this analysis the 5-point scale was reduced as only 1 (Steiner) pupil reported that they were 'very bad' at drawing and three pupils (1 NC & 2 Steiner) reported that they were 'quite bad' at drawing. This data was not included in the X^2 test of association as this would have resulted in the expected frequency assumption being violated. Consequently the Chi^2 was a 3 ('okay', 'quite good', 'very good') x 2 (National Curriculum, Steiner) test of association.

1.91¹⁴ confirms that those National Curriculum pupils who have opted not to take art are significantly less likely to say that they are quite good at drawing ($z = -2.2, p = .027$). In summary it seems that there are few between school differences in children's reports of their drawing self-efficacy, with children generally remaining positive about their drawing ability up to the point when they opt to no longer study the arts. This general positivity about their own perceived drawing ability is a reflection of findings from previous research (Bonoti & Metallidou, 2010; Burkitt, Jolley & Rose, 2010).

5.2.6 Preferred Subject Mater

Another factor that was specifically commented on by children and their parents when describing what they liked and did not like about drawing was specific subject matter that the children either liked or disliked drawing. Further insight was gained into the preferred subject matter of children by asking them what things they most liked to draw. Children's responses to this question are summarised in Table 5.15. The most frequently reported subject matter was 'landscapes or vegetation'. This category included popular content such as trees and flowers as well as landscape scenes. Following the theme of children choosing to draw subject matter from the natural world, 'animals' were the second most popular. 'People' was the third most, this included drawings of people that the child knew (e.g. family members and friends) and generic people whose specific identity was not specified (e.g. 'people'). Some children also reported drawing 'imagined or fictional characters', such as 'princesses' and 'people from fairy stories'. These responses were categorized into their own

¹⁴ For this analysis the 5-point scale was also reduced as just one pupil from each school type reported that they were 'very good' at drawing. This data was not included in the X^2 test of association as this would have resulted in the expected frequency assumption being violated. Furthermore only six pupils reported that they were 'very bad' (1 NC, 1 Steiner & 4 NC non art) and four that they were 'quite bad' (1 NC & 3 NC non art). To make sure that the expected frequency rule was not violated, but also that this data was included, the responses for 'very bad' and 'quite bad' were collated. Consequently the Chi^2 was a 3 ('bad' 'okay', 'quite good') x 3 (National Curriculum, National Curriculum non art, Steiner) test of association.

theme as not all these fictional or imagined characters took on a human form (e.g. monsters and elves were also part of this category).

Table 5.15

Children's reports of subject matter they most frequently chose to represent.

	Age 7-14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 60	n = 60	n = 20	n = 20	n = 20
Landscapes or vegetation	40%	32%	30%	25%	40%
Animals	32%	30%	10%	10%	20%
People	23%	25%	10%	10%	40%
Buildings	17%	17%	0	0	0
Vehicles	15%	17%	5%	5%	0
Scenes from popular culture	17%	13%	10%	15%	5%
Imagined or fictional characters	8%	8%	0	5%	15%
Clothes or fashion items	7%	5%	3%	25%	5%
Certain part of drawing process	2%	4%	55 %	35%	20%
Household items or toys	8%	2%	0	0	0
Shapes/symbols/patterns	5%	4%	15%	0	30%
Leisure	5%	2%	0	0	0
Copied things	3%	3%	0	0	10%
Anything	8%	15 %	0	15%	10%
don't know	0	0	5 %	5%	0
Other	7%	10%	15%	5%	15%

The frequency with which children reported different types of subject matter seems to have changed little since the earliest collections of children's drawings were made and analysis of their content revealed that the most frequent subject matter of children's spontaneous drawings were humans, animals and plants (Maitland, 1895).

Furthermore, drawings collected 100 years ago from 20,000 London children between the ages of 4 to 15 years also indicate that the most frequently drawn subject matter was 'Humans' and 'Plant Life' (Ballard, 1912; cited in Lark-Horovitz, Lewis & Luca, 1967). As well as this subject matter that has consistently remained popular, there is also evidence for new influences such as 'scenes from popular culture'. This is also an area in which there is some evidence of a potential between-school difference as it seems that Steiner pupils may draw images from popular culture less than their National Curriculum school counterparts. This difference could be anticipated as within Steiner schools parents are discouraged from allowing their children to engage with electronic images such as television, films and video games (Nicols & Taplin, 2012). There also appears to be a further between-school difference in the frequency with which children report that they like to draw 'anything'. This suggests that Steiner pupils may have a wider repertoire of subject matter that they enjoy depicting and consequently when asked to name specific subject matter that they liked to include in their drawings they struggled to be specific. Although these two between-school differences from within the data have been focused on it is important to emphasise that overall the subject matter that children reported including in their drawings is very similar between the two school types. This is not surprising as the content of children's drawings has remained remarkably consistent over time and both the National Curriculum and Steiner pupils are exposed to largely similar cultural influences on their drawings.

5.2.7 Conclusions about Children's Drawing Attitudes and Practices

Data presented in this Chapter suggests that children usually enjoy drawing and have positive perceptions of their own drawing ability up to the point that they chose to stop taking regular art lessons at school. When they chose to stop regular art lessons their positivity about drawing, their drawing ability and also the amount of

time that the report spending drawing decline. Although it was predicted that Steiner pupils would report spending more time drawing and enjoying drawing more no evidence to support this was found. However, when children's motivations for drawing and reasons for enjoying the activity were considered some between-school differences were apparent. Steiner pupils seemed to be more aware of the wider benefits of drawing, whereas National Curriculum pupils were more focused on drawing to improve their drawing skill. While differences like this seemed to be a reflection of the different experiences of the two groups of pupils other differences were harder to explain. For example, both groups of pupils appeared to perceive that drawing was difficult, but whereas National Curriculum pupils were more likely to report difficulties with specific subject matter and techniques Steiner school pupils were more likely to report more general difficulties, such as frustration at making mistakes and not meeting their own expectations. To further understand children's experiences we need to consider what help and support they receive with drawing, this will be the focus of the next Section.

5.3 The Support and Help that Children Experience while Drawing

This Section continues to report the data collected from 180 6- to- 16-year-old children, their teachers and their parents. The focus of is Section is on the help and support for drawing that children report receiving and their teachers, parents report offering. In addition, children's requests for further help and their perceptions of art values are reported. Data from the National Curriculum and Steiner pupils, their parents and teachers, is presented and notable between-school differences commented on. Furthermore, the findings presented are discussed and interpreted with reference to curricula taught in the two school types and relevant previous research.

5.3.1 Help from Teachers

Children's perceptions of the help that they received from teachers were investigated as part of the survey along with teachers own reports of the help that they provide. Due to differences in the curricula it was anticipated that National Curriculum teachers would focus more support on developing children's representational drawing skills compared to Steiner teachers who would give less directive help and more emphasis to the development of the children's own imagination and expression.

All the children were asked what help they received with their drawing endeavours from their teachers, their responses are summarised in Table 5.16. The most frequent type of help reported was 'demonstrations'. This theme included comments about teachers showing children how to draw something, either graphically (e.g. by depicting it on the board or another sheet of paper) or spatially (e.g. by tracing the shape of the outline either on the child's picture or on another surface). It is notable that over twice as many National Curriculum pupils compared to Steiner pupils report that their teachers gave demonstrations. This is surprising as Steiner school teachers are encouraged to create their own drawings on the classroom chalkboard to inspire their pupils (Jünemann & Weitmann, 1977). Furthermore, Nicholson (2000) comments on these drawings, often done before the children arrive, as a distinctive feature of the Steiner classroom. In contrast the National Curriculum provides no guidance on whether teachers should provide examples and demonstrations, instead leaving this up to the individual teacher. From the data presented here it seems that these teachers do often provide demonstrations. This could reflect the emphasis on helping children to develop their representational drawing skills.

Further research into the nature of the demonstrations given could help explain the between-school differences further. It might be that the National Curriculum pupils experience their teachers demonstrating particular skills and specific subject matter,

with the aim of increasing their representational drawing ability. On the other hand, Steiner school pupils experience their teachers' chalkboard drawings which they may, or may not, chose to use as inspiration for their own imaginative and expressive drawings. Consequently, these experiences may influence the perceptions of the children from the two school types about whether they are provided with demonstrations to help them to develop their own drawing skills.

Table 5.16

Children's responses to the question 'I want you to think about the help your teachers have given you in your drawings. What sort of help have they given you?'

	Age 7 to 14		Age 16		
	National Curriculum Art		National Curriculum Art		Steiner
				non art	
	n = 60	n = 60	n = 20	n = 20	n = 20
Demonstrations	40%	20%	30%	15%	8%
Tips for improvement	23%	15%	20%	20%	5%
Skill development	15%	16%	30%	30%	8%
Being told exactly what to do	12%	8%	10%	5%	1%
Complete part of drawing	7%	4%	5%	25%	0%
Ideas of what to draw	8%	9%	10%	0%	1%
Encouragement	7%	4%	15%	5%	6%
Encouraging concentration	3%	1%	0%	0%	0%
Don't know	5%	10%	0%	0%	0%
Other	6%	10%	10%	15%	10%
No Help	13%	6%	5%	0%	15%
Freedom	0%	3%	5%	0%	5%
Good teacher	0%	8%	0%	0%	0%

A notable difference among the older pupils, and in particular the 16-year-old National Curriculum pupils who have chosen to take art compared to those who have not is the frequency with which they report that their teachers ‘complete part of their drawing’ for them. This is five times more likely to have been reported by those not taking art. It could be that those not taking art request more help, or that teachers were more likely to offer help to these pupils. Similarly it is unclear what the motivations behind either of these actions might be. For example, it might be that the non-GCSE art pupils are not as competent so they request more help than those taking GCSE art. Equally, teachers may have been sensitive to those students less able in art and felt such pupils needed this type of help. To gain further insight more questioning would be required to provide thorough exploration of these children’s experiences and why it might be that teachers more frequently complete part of their drawings for them. Such questioning was not carried out as part of the current survey, as this survey aimed to cover a wide range of issues related to children’s drawing and a structured interview schedule was being followed. Future, more focused, qualitative research using semi –structured interviews analysed using Interpretative Phenomenological Analysis would provide insight into with how the participants make sense of their experiences.

What is also evident from children’s reports of the help received is that generally fewer Steiner, compared to National Curriculum, pupils report receiving the various types of help and support listed. This is reflected in the lower frequencies reporting ‘demonstrations’, ‘tips for improvement’, ‘encouragement’ and also the more directive types of help such as teachers ‘completing part of the drawing’ and ‘being told exactly what to do’. Conversely, Steiner pupils are less likely to report that they receive ‘no help’

with drawing. Indeed it is actually National Curriculum pupils who were twice as likely to report receiving no help. Consequently, it does not seem that the lower frequencies can be explained by Steiner pupils not perceiving that they receive help from their teachers. Instead it seems that response from those National Curriculum pupils who reported that they received help were more likely to include lists of more different types of help and support provided by teachers. This could be tentative evidence for National Curriculum pupils perceiving that their teachers are more involved and provide more guidance and feedback to their drawing tasks. This could be a reflection of differences advocated within the curricula as the Steiner approach suggests that children should not be taught drawing per se until the age of 12 and instead should be given the opportunity and freedom to explore their own imagination and artistic expression (Jünemann & Weitmann, 1977). In contrast the National Curriculum places greater responsibility on the teacher to actually teach their pupils to ‘represent observations, ideas and feelings’ (Department for Education and Employment, 1999, p.16) throughout their schooling. However, this is just one interpretation of the data and further research would be required to investigate the validity of this explanation.

Teachers were also asked about the help that they provided for children. There is some indication from those teaching the National Curriculum that they provide pupils with more detailed guidance about how, and what, they expect them to draw as 54% commented on communication of expectations to their pupils. In comparison just one Steiner teacher made a comment coded in this theme. Nonetheless it does seem that Steiner teachers also provided structured guidance as 80% of the Steiner teachers report using their own drawings to demonstrate to their pupils the skills, techniques or ideas that could be developed

in the children's own drawings. This use of demonstrations was also evident among National Curriculum school teachers, although to a somewhat lesser extent (54%). Consequently, it seems that National Curriculum school teachers may provide more detailed explanations of their expectations. However, when the responses of the Steiner pupils are also considered it seems that their teachers' may provide some guidance on what they expect but that this may be communicated more subtly, for instance through the use of demonstrations.

Although there appear to be few between-school differences in the help that teachers report providing this finding does need to be interpreted with some caution. In particular it is difficult to ascertain from the teachers reports the frequency with which the different types of help are actually provided within their classrooms. Furthermore, what people do may differ from what they say they do (Robson, 2011). Consequently, a more in-depth and valid understanding of the support teachers offer their pupils could be gained from direct observation in classrooms. To enable comparisons across classrooms and between school types a coding scheme such as that by Mascolo (2005) could be adapted and used to record each 'event' of support offered by teachers. Carrying out a study of this nature would not be without challenges, in particular it would be necessary to record the classroom sessions to facilitate later coding, and being observed and recorded may alter the content and delivery of the 'drawing' lesson.

Additionally, within Steiner schools there are no dedicated drawing lessons until pupils are 12 years old, instead drawing occurs within subject lessons.

Consequently, selecting a session to observe could lead to bias (i.e. support offered to children within a maths or biology lesson may differ to support offered within a history or English lesson). Nonetheless, developing such lines of

research are important if true insight into children's classroom experiences are to be gained.

The help that pupils experience from their teachers is an under researched area and consequently there is little previous research to which the findings reported above can be compared. Qualitative work in this area (Hallam, Das Gupta & Lee, 2008; Hallam, Lee & Das Gupta, 2011) suggested that some teachers adopted the position of facilitators, taking a child-centred approach to art education by allowing children freedom and giving them tasks that they think that the child will enjoy. The alternative approach to delivering the Art and Design Curriculum identified by Hallam, et al. was that of the teacher positioning themselves as the expert. Evidence of both of these approaches can be seen within the reports of the pupils and their teachers above. There seems to be some tentative evidence that pupils do perceive their teachers to be 'experts' as the most frequently reported types of help involve teachers providing demonstrations, tips on how to improve, drawing skills and exact instructions.

5.3.2 Help from Parents

As well as being asked specifically about the help for drawing received from teachers, children and their parents were asked about help at home. The children's responses to the question, 'I want you to think about the help your parents have given you in your drawings. What sort of help have they given you?' are summarised in Table 5.17. Some children, particularly Steiner pupils, reported receiving no help from their parents with drawing. Some of the comments in this category suggested that the children believed that they did not need any help from their parents while others were less specific in their responses and simply said that no help was received. When help was received the most frequent type of help that children reported was demonstrations, closely followed by tips for improvement. Some National Curriculum

and a few Steiner pupils also reported that their parents helped them by completing part of their drawing for them. These responses do seem strikingly similar to those reported by the children when asked about the help that they receive from their teachers (see Table 5.16 above).

Table 5.17

Children's responses to the question 'I want you to think about the help your parents have given you in your drawings. What sort of help have they given you?'

	Age 7 to 14		Age 16		
	National Curriculum n = 60	Steiner n = 60	National Curriculum Art n = 20	National Curriculum non art n = 20	Steiner n = 20
No help	17%	30%	9%	65%	11%
Demonstrations	25%	10%	15%	28%	3%
Tips for improvement	23%	9%	1%	10%	5%
Complete part of drawing	13%	6%	0%	0%	0%
Encouragement	15%	13%	3%	10%	11%
Materials	7%	1%	3%	5%	4%
Ideas of what to draw	3%	3%	3%	0%	0%
Skill development	3%	3%	1%	0%	0%
Don't know	5%	6%	0%	0%	0%
Other	5%	9%	0%	0%	3%

Similar to the children's reports about the help that they receive from their teachers it appears that Steiner pupils may receive less help from their parents than their National Curriculum counterparts. Nearly twice as many Steiner compared to National Curriculum pupils report receiving no help from their parents. Furthermore,

when the percentages of children reporting the different types of help received from parents are considered it can be seen that these are generally lower for the Steiner compared to National Curriculum pupils.

Table 5.18

Parents' responses to 'In what specific ways do you help your child with his or her drawing?'

	National Curriculum	Steiner
	n = 41	n = 39
Shouldn't help	7%	30%
Can't help	12%	0%
Encouragement	36%	65%
Shares in experience with child	21%	30%
Materials	2%	30%
Ideas of what to draw	12%	3%
Parents draw more	5%	13%
Make time for the child to draw	2%	13%
Tips for improvement	29%	25%
Techniques and skills	24%	5%
Demonstrations	14%	13%
Alters Drawing	10%	3%
Don't know/ No response	7%	0%
Other	0%	5%

Additional evidence of Steiner pupils receiving less intervention from adults while drawing can be seen when the reports of the parents themselves are considered; these are summarised in Table 5.18. Some parents, including nearly a third of parents of Steiner pupils expressed the view that parents should not help or interfere with their children's drawing experiences. This view, that adult intervention in children's

drawing will have a negative influence on children's drawing development, is evident in some of the literature on children's drawings (e.g. Arnheim,1989; Lowenfeld,1957; Mathews, 2003). Furthermore, Braswell (2006) suggests that this belief is prevalent among many western parents and teachers who consequently choose to support children's drawing development through the provision of materials, the opportunity to engage with them and the providing of inspiration rather than any direction or instruction concerning skill development. This is in contrast to the approach taken in eastern cultures such as China. Here drawing techniques are explicitly taught with teachers providing graphic models and giving very directive instructions (Gardner, 1989; Jolley & Zhang, 2012; Winner, 1989).

From consideration of the parents reports of the help they offer it seems that the parents of Steiner pupils are more likely to provide encouragement, draw more themselves, share in their child's drawing experiences and provide materials for their child to draw with compared to the parents of National Curriculum pupils. In contrast, National Curriculum parents are more likely to provide ideas of what to draw, give advice on the techniques and skills involved in drawing and to alter their child's drawing. Consequently, it seems that parents of National Curriculum pupils may be more actively involved in giving direction and feedback during their children's drawing experiences compared to the parents of Steiner pupils who encourage drawing but appear to give less direction and specific guidance. These reports are supported by the reports of the children themselves and also appear to reflect the children's experience at school.

The consistency with which the responses seem to indicate that Steiner pupils may experience less directive help with drawing than their National Curriculum school counterparts increases confidence in the reliability of this finding. Furthermore, the lower levels of involvement reported by participants associated with Steiner reflect

differences within the curriculum. Whereas the National Curriculum outlines knowledge, skills and understanding which children should be taught from Key Stage 1 (age 5), Steiner teachers are not expected to teach drawing skills until the child is approximately 12 years old. Instead, drawing is nurtured through providing opportunities, materials and encouragement to express thoughts, understanding and feelings through art (Jünemann & Weitmann, 1977). This difference in the curriculum between the two school types also seems, from the reports of the children and their parents, to prevail in the home environments too. This could potentially be explained through the encouragement that Steiner parents experience to appreciate and follow the underlying principles of the Steiner curriculum at home (Clouder & Rawson, 2003). Furthermore, as the children's art work is so clearly valued as part of their school work the Steiner parents may well not feel the need to support their children further in drawing. It is part of their daily lives at school and therefore may not be something that parents feel that they need to highlight at home. It is also possible that as children's artistic skills increase, especially under the guidance of a talented class teacher, parents may quite soon feel that their children's drawings are of a different style (e.g. not aiming to be representational) and involve skills with which they are not familiar.

What is also evident when the reports from the children are compared to those of their parents is that the frequencies with which different types of help are reported vary considerably between the two groups. In particular parents reported giving encouragement much more frequently than the children reported receiving it and conversely children reported their parent's providing them with demonstrations more frequently than the parents reported providing them. There could be a number of reasons for this. Firstly, only 44% of the children's parents completed and returned the questionnaire and it is possible that those who did complete it may offer different

types and levels of support and guidance compared to those who did not complete it. Consequently, the parent's reports may not be fully representative of the experiences of the children. For instance, results could be biased as those parents who value drawing could be the parents who returned the questionnaire and these individuals may also be more encouraging of their children's drawing experiences compared to those who did not return the questionnaire. Alternatively it could be that the children's perceptions of what is helpful are different to the parents'. Consequently, when the children were asked about their experiences of help they might have been more likely to recall experiences involving their parents giving them constructive help, such as demonstrations, whereas parent's might think more about the encouragement and praise that they give their children as they may perceive this vital in allowing children to develop their own drawing ability without regular adult interference.

A further bias within the parents' questionnaires is that what people say that they do does not always reflect how they actually behave. This has already been discussed in relation to the teachers' reports above. However, it could be suggested that this may be even more salient for parents as there is no expectation placed on them to 'teach' their child to draw and it has previously been found that there is a generally held belief in many Western countries that adult intervention will have a negative influence on drawing development (Bae, 2004; Braswell, 2006; Gunn, 2000; Potter & Eden, 2001). Consequently, parents might be reflecting these views and focusing on the encouragement that they give their children in their drawing experiences rather than more directive forms of help. It would be beneficial to our understanding if observation studies could be conducted to gain further insight into the actual help that parents provide their children within their drawing endeavours. However, even if such observations were carried out parents may alter their behaviour while they are being observed (Robson, 2011). Furthermore, artificially setting up drawing sessions within

the home environment may lead to behaviour from both the child and the parent which may differ from that which happens during naturally occurring drawing episodes. Nonetheless, repeat observations over a period of time might lead to more reliable data. Additionally, if a video camera could be left set up in the location in which drawing activities most frequently occurred (e.g. the kitchen table) and the parent instructed to turn the camera on whenever the child, or parent, spontaneously initiated a drawing activity more valid data might also be gained.

Insight into the regularity with which parents report talking to, or sitting with, their children while their children draw was also gained from the survey. Parents responded to this question on a five-point Likert type scale ranging from ‘most days’ to ‘hardly ever’. It was predicted that the parents of Steiner pupils would more frequently spend time sitting and talking to their child while they drew, compared to the parents of the National Curriculum pupils. However, evidence to the contrary was found, see Figure 5.4, as it seems that the parents of National Curriculum pupils more frequently sat with their children while they drew. This is confirmed by a Chi Squared test of association $X^2(4, N = 68) = 16.35, p < .001, r = .49^{15}$ which indicated that parents of National Curriculum pupils were significantly more likely to report ‘more than twice a week’ ($z = 2.8, p = .005$) whereas parents of Steiner pupils were significantly more likely to report ‘once a week’ ($z = 2.3, p = .021$) or ‘hardly ever’ ($z = 2.0, p = .041$). Consequently, this evidence supports the reports of children and parents about the types of help experienced, suggesting that Steiner parents are less involved in their children’s drawing experiences.

¹⁵ This analysis is based on the reports of the parents of pupil below the age of 16 as only 13 parents of 16-year-olds responded to this question across the two school types resulting in a sample too small to be reliable.

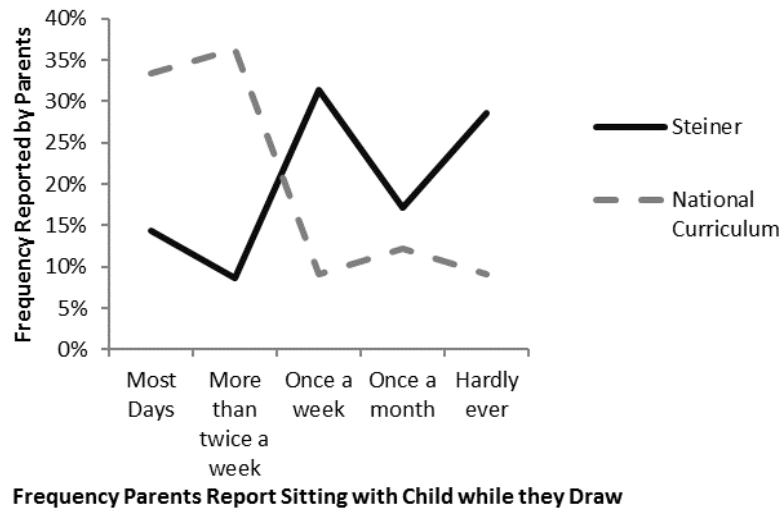


Figure 5.4: Responses of parents of pupils age 7-14 to the question ‘How often do you sit and /or talk with your child as he or she draws?’

5.3.3 Help from Other children

As well as asking all the children about the help that they received from teachers and parents each child was also asked about the help that they received with drawing from other children, such as friends and classmates. Children’s responses to this question are presented in Table 5.19. Almost half of all children reported that they received no help from other children. However, when children did report receiving help the nature of this help was similar to the types of help that they reported receiving from their teachers and parents; demonstrations and tips for improvement. These types of help that children report receiving from one another seem to reflect the anecdotal evidence from Thompson (1999) who observed that peers often engaged in drawing instruction and copying from one another

Table 5.19

Children's responses to the question 'I want you to think about the help that other children have given you in your drawings. What sort of help have they given you?'

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 60	n = 60	n = 20	n = 20	n = 20
No help	40%	58%	35%	40%	50%
Demonstrations	17%	17%	10%	5%	20%
Tips for improvement	15%	8%	30%	25%	15%
Encouragement	7%	12%	0%	0%	5%
Complete part of drawing	12%	0%	0%	10%	0%
Ideas of what to draw	7%	3%	15%	5%	0%
Shares in experience	3%	3%	0%	5%	5%
Don't know	3%	0%	5%	0%	0%
Other	0%	7%	10%	20%	15%

There are some noticeable between-school differences in the frequencies with which different types of help were reported by the children. Steiner pupils were more likely to report that they did not receive any help from other children, while National Curriculum pupils were more likely to report receiving tips for improvement from other children and having other children completing part of their drawing for them. This finding along with similar differences noted in the children's reports of the help received from teachers and parents seems to suggest that Steiner pupils may overall receive less directive help with their drawing.

5.3.5 Help from Others

To gain as full a picture as possible of the support and guidance that children experience while drawing all children were asked, after responding to the questions about the help that they receive from their teachers, parents and other children, whether there was anyone else that helped them with drawing, and if so what was the nature of the help that they received. Table 5.20 shows the frequencies with which children reported receiving help from other people. It can be seen from this that many children reported that no one else helped them with drawing. However when help was received the most likely providers of this help were grandparents and sibling/cousins. A small number of children also reported receiving help from another adult familiar to them (e.g. uncle, aunt, family friend and adults at school) or from an artist. This was generally an adult who they were not familiar with but who was a professional artist whom they had met outside the home, for example during a visit to a museum or art gallery. The most notable between-school difference was that Steiner pupils more frequently reported that no one else helped them compared to their National Curriculum counterparts.

Table 5.20

Children's responses to the question 'Has anyone else helped you with your drawing?'

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 60	n = 60	n = 20	n = 20	n = 20
No one	25%	48%	70%	85%	85%
Sibling/cousin	22%	20%	10%	10%	5%
Grandparents	13%	22%	10%	0%	0%
Uncle/aunts/family friend	7%	5%	5%	0%	0%
Adults at school	3%	0%	5%	0%	0%
Artist	2%	5%	0%	5%	0%
Other	8%	5%	0%	0%	10%

All the children who responded that they received help from someone else were asked to describe this help. Their responses are summarised in Table 5.21. Similar to children's reports of the help that they received from their teachers, parents and other children the most frequently reported type of help was demonstrations. Other frequently reported help from others included ideas of what to draw and tips for improvement. Both of these types of help reflected comments that are made in the form of suggestions, with children still having the choice and control about what to actually include in their drawing. Types of help that gave the children less freedom are also reported to be received, including being told exactly what to do and having part of their drawing completed for them. It is evident that for these types of more prescriptive help, telling the child exactly what to do and completing part of their drawing for them were more frequently reported by National Curriculum compared to Steiner school pupils. This adds further support to the findings above that Steiner

pupils experience less directive guidance when drawing compared to National Curriculum pupils.

Table 5.21

Children's responses to the question 'What help have they given you?'

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 30	n = 29	n = 5 ¹⁶	n = 3 ¹⁵	n = 3 ¹⁵
Demonstrations	24%	18%	-	-	-
Ideas of what to draw	20%	21%	-	-	-
Tips for improvement	13%	17%	-	-	-
Being told exactly what to do	17%	10%	-	-	-
Complete part of drawing	17%	7%	-	-	-
Materials	10%	7%	-	-	-
Encouragement	7%	3%	-	-	-
Pictures to copy	3%	3%	-	-	-
Other	17%	25%	-	-	-

5.3.6 Help that Children Would Like

In addition to asking children about the help that they receive with drawing they were also asked whether there was any additional or extra help that they would like, or would have liked when they were younger. Children's responses to this are displayed in Table 5.22. Many children reported that they did not or had not needed or wanted any additional help. However, when children did desire help they tended to want help with developing their drawing skills and techniques or to be provided with examples

¹⁶ Too few responses to make content analysis meaningful.

that they could copy. The copying of pictures is a rather contentious issue within art education. One opinion is that copying negates both the problem solving and expressive purposes of art (e.g. Arnheim 1989). However, others are more in favour of copying, for example Wilson (2000) argues that showing graphic models does not produce stereotyped drawing but enhances children's drawing skills and this viewpoint was supported by earlier research evidence (Pariser, 1979).

Table 5.22

Children's responses to the question 'what extra help would you like with your drawings (now or in the past)?'

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 60	n = 60	n = 20	n = 20	n = 20
None	33%	45%	45%	35%	50%
Skills/Technical	7%	10%	25%	20%	35%
Examples to copy	10%	7%	0%	0%	0%
Specific subject matter	8%	7%	5%	0%	0%
Ideas of what to draw	8%	7%	0%	0%	0%
Better drawing environment	7%	2%	5%	0%	0%
Complete part of drawing	7%	0%	0%	0%	0%
Specialists	0%	0%	5%	0%	10%
Don't know	13%	12%	0%	10%	0%
Other	15%	17%	15%	35%	10%

There was little evidence of between-school differences among the comments to these most frequently desired types of help. However, there were some between school differences evident among the less frequently reported types of help desired. National Curriculum pupils were more likely than their Steiner school counterparts to

make comments about wanting a better environment in which to draw, for example provision of materials for drawing and making time for drawing were frequently commented aspects of the environment in which children wanted more support. Additionally National Curriculum pupils were also more likely than their Steiner school counterparts to comment that they would like more help in the form of someone completing parts of their drawings for them. No Steiner pupils made comments suggesting that they desired this type of help.

Overall, it does seem that Steiner pupils might be more satisfied with the help that they receive as more reported that no extra help was desired. This, taken together with the findings above which suggest that they experience less directive help compared to the National Curriculum pupils, begins to provide some evidence of children's experiences of adult intervention in their drawing. This could be tentative evidence to suggest that children who receive directive help may become reliant on receiving directions to overcome challenges in their drawing endeavours, whereas children who experience less directive guidance may be more able to solve these problems themselves.

5.3.7 Art Values

To gain further insight into the types of support that children experience while drawing the art values of their parents and teachers were investigated. It was anticipated that those associated with the National Curriculum schools would report values emphasising representation within drawings whereas those associated with the Steiner schools would emphasis expression and imagination. To investigate this prediction all parents and teachers were asked what they thought made a child's drawing 'good', and what they thought made a child's drawing 'bad'. Additionally, the children's perceptions of the art values of adults were also investigated with the questions, 'what do you imagine that most adults think makes a drawing good/bad.

The children's perceptions of adults' art values will be considered first. These are summarised in Tables 6.23 and 6.24. Children from both school types made comments about adults valuing the care and effort that they put into a drawing. For the younger National Curriculum pupils this was the most frequently reported art value they perceived to influence adults opinions of their drawings. It is interesting that these children perceive that it is their behaviour while drawing that is most valued by adults; I am fairly certain that the same would not be said about their performance in English or Maths. Although many Steiner pupils also made comments about care and effort being valued they more frequently comment on adults valuing specific subject matter. Comments about the skills demonstrated in the drawing are not so common, however children do comment on how representational the drawing is, as well as use of colour, detail and good technical skills. What is also notable about these comments is that they seem to be made with greater frequency by the National Curriculum compared to the Steiner pupils. This could reflect the more direct involvement and feedback experienced by National Curriculum pupils which could result in them being more aware of the expectations that adults have about particular drawing skills. Conversely, the lower frequency with which these comments were made by Steiner pupils could reflect the view expressed by some parents' that children's drawings shouldn't be interfered with and the attitude that a child's drawing is something personal and unique to them, which the adult should not attempt to alter (Nicol & Taplin, 2012).

Table 5.23

Children's responses to the question 'what do you imagine that most adults think makes a drawing good'.

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 60	n = 60	n = 20	n = 20	n = 19
Specific subject matter	23%	23%	20%	20%	0%
Care & effort	30%	10%	0%	15%	25%
Representational	17%	7%	15%	15%	8%
Colour & shading	12%	8%	5%	10%	17%
Imagination & Creativity	12%	2%	10%	15%	8%
Detailed	7%	7%	10%	25%	0%
Good technical skills	10%	3%	0%	0%	0%
Neatness	8%	2%	5%	5%	0%
Materials	3%	2%	0%	0%	0%
Appreciation by self or others	3%	2%	0%	0%	0%
Personal preference	0%	4%	25%	25%	25%
All good	0%	8%	0%	0%	0%
Don't know	13%	40%	15%	5%	33%
Other	12%	20%	20%	10%	17%

Table 5.24

Children's responses to the question 'what do you imagine that most adults think makes a drawing bad'.

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 60	n = 60	n = 20	n = 20	n = 20
Scribbling	10%	23%	10%	0%	0%
Care & effort	23%	7%	0%	5%	18%
Subject matter	17%	12%	15%	15%	36%
Colour	8%	5%	0%	5%	0%
Lack of realism	8%	2%	15%	10%	0%
Neatness	3%	5%	10%	10%	9%
Lack of technical skill	5%	2%	5%	0%	0%
Detail	3%	2%	10%	5%	9%
Personal preference	0%	8%	15%	5%	18%
All good	15%	12%	0%	5%	0%
Don't know	12%	42%	5%	20%	18%
Other	13%	5%	0%	40%	9%

The parents were also asked about what they valued in their children's drawing, their responses are summarised in Tables 6.25 and 6.26. Overall the art values of the two groups of parents' seem to be remarkably similar. Parents from both school types reported that expression, imagination and the child's enjoyment of drawing were very important to them. It was anticipated that Steiner parents' would place more emphasis on expression and imagination; instead it seems that this is important for parents from both school types. It could be that expression and imagination might be emphasised more within the National Curriculum than first anticipated. Alternatively it could be the wider social context rather than the values within the school that are influencing parent's values. Consequently, the value placed by both groups on expression and

imagination could reflect more modernist artist principles valuing expression and imagination over representation. One between-school difference in parents' reports of why a child's drawing might be 'bad' is that Steiner parents' are considerably more likely to report that all drawings are good. This could reflect their belief that judgments should not be passed on children's drawings as they are an expression of their inner world and therefore it is not appropriate to judge or influence them (Nicol & Taplin 2012).

Table 5.25

Parent's responses to the question 'What makes a child's drawing good?'

	National	
	Curriculum n = 42	Steiner n = 40
Expression and imagination	31%	38%
Child's enjoyment	26%	38%
Detail	21%	18%
Colour	12%	18%
Care & effort	19%	15%
Owning the drawing	12%	18%
Techniques	5%	10%
Representation	5%	10%
Subject matter	5%	5%
Supportive drawing environment	7%	3%
All good	0%	20%
Don't know	12%	3%
Other	17%	13%

Table 5.26

Parent's responses to the question 'What makes a child's drawing bad?'

	National	
	Curriculum n = 42	Steiner n = 40
They are all good	19%	48%
Care & effort	19%	30%
Child's attitudes	21%	5%
Lack of expression & imagination	7%	10%
Detail and colour	7%	8%
Lack of help	7%	0%
Don't know	21%	3%
Other	17%	30%

The teachers' responses to the two questions about art values reflect elements of the responses of the parents and the children. In particular the National Curriculum teachers emphasised the importance of the care and effort that a child put into the drawing, with this being the most frequent response for both what makes a drawing 'good' (77%) and 'bad' (62%). In comparison no Steiner teachers mentioned care and effort, instead they emphasised the children's use of colour in their drawing ('good' 80%, 'bad' 20%). This emphasis on colour reflects the importance placed on this within the Steiner Curriculum. Similarly, the emphasis within the curriculum on expression and imagination were also reflected in the comments of 60% of Steiner teachers. However, National Curriculum school teachers also placed some emphasis on expression and imagination (31%) and although their curriculum also emphasises the development of representational drawing this was only mentioned by one teacher. The high frequency of comments relating to care and effort made by the National Curriculum school teachers might reflect these teachers own lack of confidence and

training in the arts which might be resulting in them lacking in confidence or knowledge to comment on other properties of the drawings.

5.3.8 Conclusions about the Support and Help that Children Experience While Drawing

The most frequently reported types of help received by children, according to their reports, were, demonstrations and tips to improve their drawing. These types of help were also reflected in the parents' and teachers' reports of the help that they offered, although many, and particularly the parents of the Steiner pupils, also emphasised the encouragement that they gave the children. Reports from the children, their parents and teachers consistently suggest that Steiner pupils may receive less directive help compared to their National Curriculum counterparts. However, when children are asked what additional help they would like with drawing there is no evidence that Steiner pupils feel that they are missing out on help. When art values are investigated children emphasise the importance of care, effort and the subject matter within the drawing. Although the importance of care and effort is also commented on by National Curriculum school teachers, Steiner teachers and parents associated with both school types more frequently comment on the importance of imagination and expression.

5.4 An Age Related Decline of the amount of Time Spent Drawing:

Perceptions and Attitudes

This Section continues to report the survey data collected from 180 6- to 16-year-old children, their teachers and their parents. The focus is on the responses regarding a potential age-related decline in the amount of time that some children choose to spend drawing. In particular, the perceptions of the extent to which there is a decline in time spent drawing and potential

explanations for any decline and attitudes towards any such decline are focused on. Data from the National Curriculum and Steiner pupils, their parents and teachers is presented and notable between-school differences commented on. Furthermore, the findings are discussed with reference to differences in the curricula taught in the two school types and to the small body of research relating to an age-related decline in drawing activity.

5.4.1 Is a Decline Perceived to Exist?

All the participating children were asked whether they thought that they would draw more, the same or less when they were adults. Children's responses to this question can be seen in Figure 5.5. There is little evidence of any difference in the frequencies with which children from the two school types thought that they would draw more, about the same or less in adulthood. This was confirmed for the children aged 14 years and under through a Chi squared test of association, $X^2(4) = 5.599$, $p = .238$, $r = .22$. However, data from the older pupils suggested that there were between-school differences, $X^2(4) = 10.87$, $p = .028$, $r = .44$ ¹⁷. Further investigation revealed that although there were no differences among those still taking regular art lessons (Steiner pupils and National Curriculum pupils taking an art GCSE). However, those National Curriculum pupils who had opted not to take an art GCSE were significantly more likely to report that they would draw 'a lot less' ($z = 3.2$, $p = .001$). Consequently, opting not to study an art GCSE seems to be strongly associated with pupils believing that they will draw less as adults. It is worth noting that as all Steiner pupils continue to study the arts throughout their schooling overall pupils from this

¹⁷ For the older children it was not possible to carry out a Chi Squared analysis on the full range of responses as the smaller sample size resulted in the expected frequencies rule being violated for some cells. Consequently for this analysis it was necessary to combine responses 'a lot more' (1 Steiner pupil), 'a little more' (3 NC, 1 Steiner, 1 NC non art) and 'about the same' (4 NC, 4 Steiner, 2 NC non art) so that the expected frequencies rule was not violated.

school type did generally perceive that they would continue drawing more as adults compared to some of their National Curriculum school counterparts.

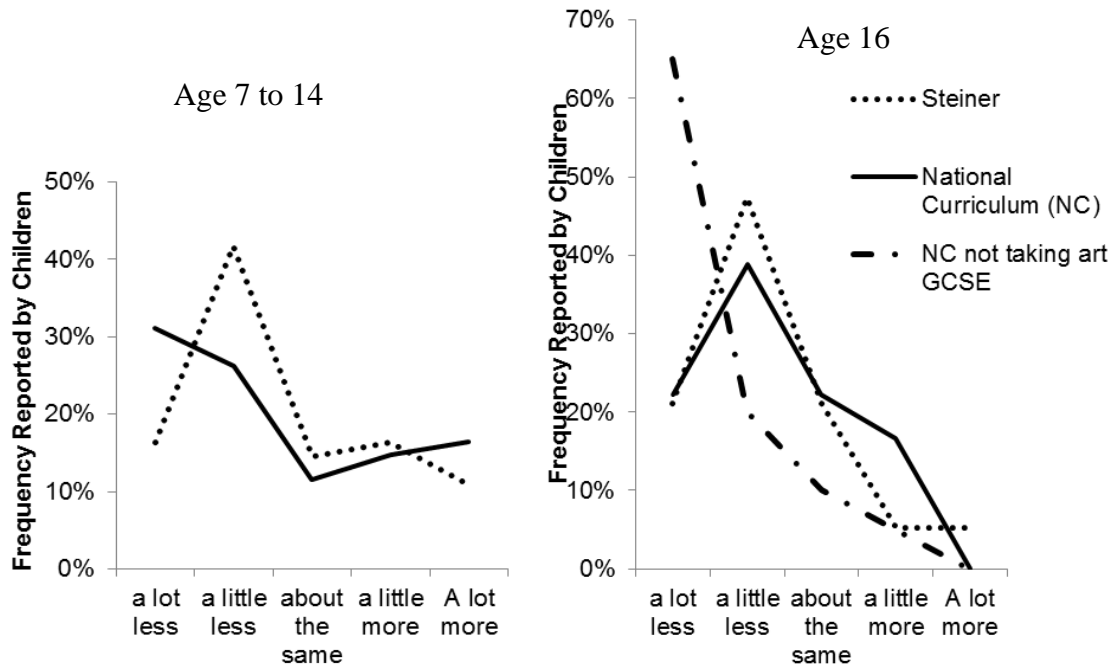


Figure 5.5. Children’s responses to the question, ‘as an adult do you think that you will spend more, about the same, or less time drawing than you do now?’

Further insight into children’s expectations about whether they will draw more, less or about the same as adults was gained by considering their explanations for their responses. These explanations are represented in Tables 6.27, 6.28 and 6.29. The most common explanatory factor was children’s awareness of increasing demands upon their time. Additionally, pupils, particularly the older ones, cited their career choice as a reason for why they might spend more or less time drawing in adulthood. This could also be seen to relate to the issue of time available, as those who follow a career which involves drawing will have time available during their working hours to engage in drawing, whereas those who do not follow a career involving drawing will not have

this drawing opportunity. It is also of interest to note that few children say that they will draw less because they dislike the activity.

Table 5.27

Children's explanations for why they believe that they will spend less time drawing in adulthood.

Reasons for spending LESS time drawing when an adult	Age 7 to 14		Age 16		
	National Curriculum n= 33	Steiner n= 31	National Curriculum Art n = 9	National Curriculum non art n = 19	Steiner n = 13
Too busy - generic	48%	65%	33%	32%	46%
Too busy - work	21%	13%	33%	26%	8%
Too busy - home	3%	3%	11%	5%	0%
Developing other interests	15%	3%	11%	5%	0%
Dislike drawing	3%	3%	11%	11%	15%
Normal development	12%	3%	0%	5%	0%
Depends on job	0%	6%	22%	16%	31%
Other	6%	6%	0%	16%	8%

Table 5.28

Children's explanations for why they believe that they will spend the same amount of time drawing in adulthood.

Reasons for spending SAME amount of time drawing when an adult	Age 7 to 14		Age 16		
	National Curriculum n= 7	Steiner n= 6	National Curriculum Art n = 5	National Curriculum non art n = 1	Steiner n = 3
Too few participants in each cell to present reliable and valid results					

Table 5.29

Children's explanations for why they believe that they will spend more time drawing in adulthood.

Reasons for spending MORE time drawing as an adult	Age 7 to 14		Age 16 ¹⁸		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n =19	n =18	n = 6	n = 0	n = 2
More time available	37%	11%			
Career requirement	32%	22%			
Enjoyment of drawing	21%	28%			
Improvement of skills	5%	22%			
Draw with children	5%	6%			
Don't know	12%	11%			
Other	21%	22%			

When the frequencies of the different responses are compared across school types the overall impression is one of many similarities. This is not surprising as although the children might be experiencing different art cultures within their schooling once they leave school the time pressures that they experience will inevitably be very similar. Nonetheless, there are a small number of between-school differences evident. Steiner school pupils are less likely to explain any reduction in the amount of time that they will spend drawing as being part of 'normal development' or due to 'developing other interests'. A potential explanation for this could be that as it is integrated into most subject lessons and they are not given a choice to stop studying the arts they are more likely to perceive drawing as a core activity, and therefore part of 'normal development'. Additionally, Steiner pupils may have more role models, such as parents and teachers, who may value the arts more highly and practice art more frequently. Some possible further support for this is evident in the

¹⁸ Too few responses within each of these groups for results to be meaningful

responses for why children believe that they may spend more time drawing in adulthood. Steiner pupils more frequently attribute this to enjoyment of drawing and the opportunity to further develop their drawing skills. This could be a reflection of their experiences of adults continuing to enjoy drawing and striving to develop their own skills. This interpretation is further supported by anecdotal comments made by Cox and Rowlands (2000) about the Steiner parents being more artistic. A further notable difference is that Steiner school pupils appear to be less likely to attribute spending more time drawing as adults to having 'more time available'. This could be tentative evidence that more Steiner pupils believe that they will make time for drawing, potentially due to their perception of it being a core activity and their enjoyment of drawing.

All the parents were asked to indicate the extent to which they agreed with the following statement: "The amount of time that children generally choose to draw, outside what they are required to by their schools, declines as they get older". The parents' responses are presented in Figure 5.6. Overall, it appears that many parents agree that there is a decline. However, this agreement is not unanimous and particularly the parents of Steiner pupils seem to be less accepting of a decline. However, when the responses were subjected to statistical analysis, using a Chi Squared test of association, it was found that there were no significant between-school differences, $X^2(3) = 3.96$, $p = .277$, $r = .23$ ¹⁹. Nonetheless, agreement about the presence of an age related decline was not as unanimous as might have been anticipated, as 33% of Steiner and 15% of National Curriculum parents disagreed that there was any age related decline. It may be that some parents based their response on

¹⁹ For this analysis the 5-point scale was reduced as only 1 (Steiner) parent reported that they 'strongly disagreed' with an age related decline in drawing. This data was not included in the X^2 test of association as this would have resulted in the expected frequency assumption being violated. Consequently the Chi^2 was a 4 ('disagree', 'middle', 'agree', 'strongly agree') x 2 (National Curriculum, Steiner) test of association.

their observations of their own child’s behaviour and as some of the participants in this survey were quite young their parents may have not perceived any age related decline in the amount of time that they chose to spend drawing. In a future survey, it may be useful to ask whether parents think that in general adults spend less time drawing than children as this would address the potential confound of age of their child in the parents responses.

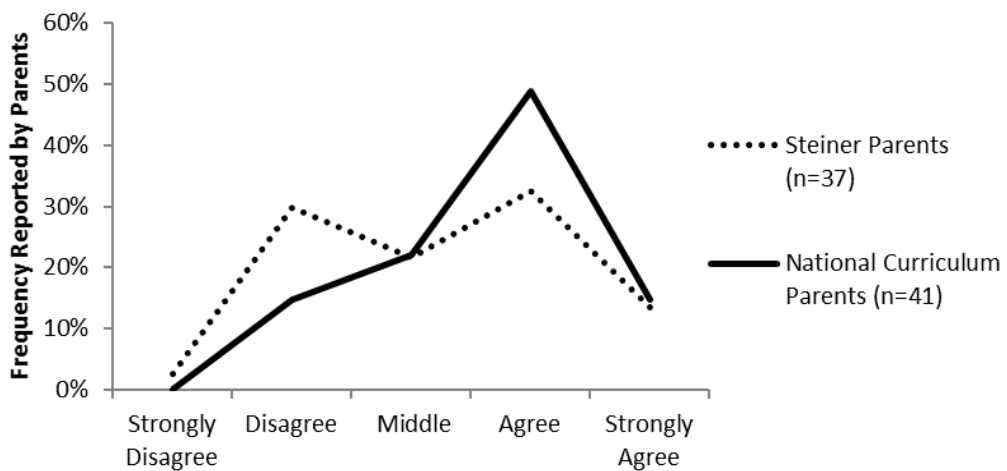


Figure 5.6: Parents responses to: “how much do you agree with the statement, the amount of time that children generally choose to draw, outside what they are required to by their schools, declines as they get older”.

Teachers were asked the same question as the parents and overall acceptance of the decline was found to be high. All participating Steiner teachers said that they strongly agreed (40%) or agreed (60%) that there was a decline. Furthermore, the majority of National Curriculum teachers also agreed (50%), or strongly agreed (38%). However, there were also two primary school teachers within this group who reported that they disagreed (12%) with the statement. Due to the small sample size it was not possible to do further statistical analysis to compare the responses from the two school types. Nonetheless, it does seem overall that teachers in Steiner and

National Curriculum schools accept that there is an age related decline in the amount of time that children chose to spend drawing.

All those parents and teachers who agreed that there was an age related decline were also asked at what age they thought that this decline occurred. There was no significant difference in the estimates from National Curriculum parents (mean = 10.89 years, SD = 3.24, n= 27) compared to those of from parents of pupils attending Steiner schools (mean = 10.72 years, SD = 3.04, n= 18), $t(43) = 0.173$, $p = .863$, $d = 0.09$. The estimate of close to 11 years of age given by both groups of parents is consistent with the age of the onset of decline in drawing commented upon in the broader literature on children's drawings (e.g. Cox 1989; Gardner 1980; Golomb 2002; Jolley 2010; Luquet 2001; Matthews 2003; Thomas & Silk 1990). Furthermore, the teachers' estimates also located the decline in the pre-adolescent period. The responses from the Steiner teachers ranged from 9.5 to 16 years old (mean =12.4 years) which were very similar to those from the National Curriculum teachers (range 8- to 15- years-old, mean = 11.4 years). Consequently, among those that agree that there is an age-related decline, this is perceived to occur during the pre-adolescent period. This is the age at which National Curriculum school pupils move from primary to secondary school and may experience more competing demands on their time as they develop new interests, widen their social networks and experience increasing academic pressures. Although Steiner pupils do not generally move school at this age, they too are gaining more independence and may spend more time outside the family home as their social network develops. Indeed, such an age-related increase in independence and interest in activities and relationships outside the home was commented on by many developmental psychologists (e.g. Bios, 1967; Buhrmester & Furman, 1990; Furman & Buhrmester 1992; Gottman & Mettetal, 1986; Sullivan, 1953).

Further insight into when a decline in the amount of time spent drawing might occur could potentially be gained from considering children's own estimates of the amount of time that they spend drawing at home. This data was originally presented in Section 5.2.1 and the data is summarised in Figure 5.7 below. There is little evidence of an age-related reduction in drawing time among the children's estimates. This is confirmed statistically as a Kruskal Wallis test²⁰ indicated that there were no significant differences between age groups for the estimates of the amount of time spent drawing at home for either the National Curriculum, $X^2(2, N=60) = 2.99, p = .228, r = .22$, or the Steiner pupils, $X^2(2, N=59) = 1.87, p = .393, r = .18$ ²¹. Consequently, it does not seem that the amount of time that children estimate that they spend drawing at home declines with age. However, this only takes into consideration the estimates from pupils who are still receiving regular drawing lessons as part of the curriculum that they are following at school. When the estimates of the National Curriculum pupils no longer taking part in drawing lessons are considered it is evident that the amount of time that they estimate spending drawing at home (median = 0.44, SD = 1.56) significantly decreases, $U = 58.00, z = -3.86, N = 40, p < .001, r = -.61$, compared to those pupils still taking art lessons (median = 3.00, SD = 3.01). Consequently, although, there is no evidence of an age-related decline among the estimates from children, it does seem that once they choose to no longer study the arts at school the amount of time that they spend drawing at home also decreases.

²⁰ Kruskal Wallis test was carried out as the children's estimates were not normally distributed and transformations did not adequately correct for this problem – this is fully described in Section 5.2.1.

²¹ There were also no between school differences in the amount of time spent drawing at home, see Section 5.2.1 for full details.

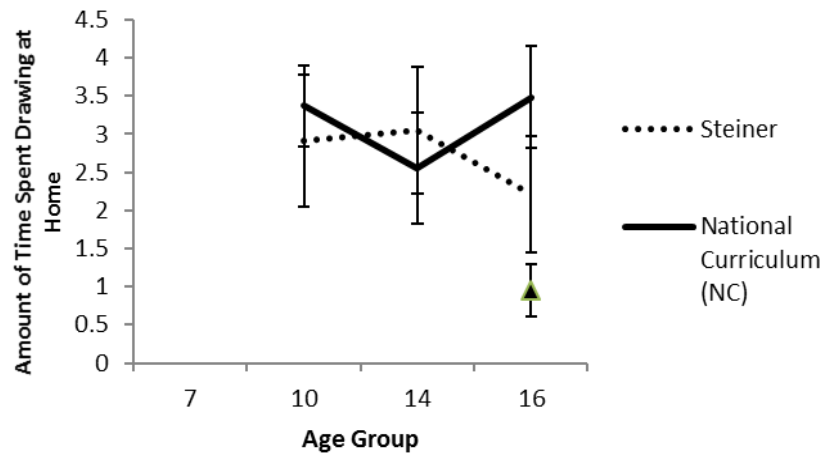


Figure 5.7: Mean and Standard error for the amount of time that pupils estimate they spend drawing at home.

Evidence from the children’s estimates does not support the views of their teachers and parents who believed that there was an age related decline, and estimated that this occurs around the age of 11 to 12 years. Furthermore, the estimates from the children are also in contrast to the speculative claims made in the literature. There are a number of possible explanations for the inconsistency. In particular, the estimates from the younger children may be under-representing the amount of time that they spend drawing due to the cognitive load of mentally adding up all the time they spend drawing. As they get older, and their working memory and mental arithmetic skills develop, the estimates might become more accurate. Accordingly, further research, using an alternative methodology such as a diary or experience sampling methodology would have the potential to provide more reliable data. These suggestions for further research into children’s reports of the amount of time that they spend drawing were fully discussed in Section 5.2.1.

In addition to asking the children to estimate time spent drawing at home an additional question about how this might have altered over time was asked; “just thinking about the amount of time that you spend at home drawing, do you draw more,

less or about the same as you used to?'. While there was no significant difference between the responses from National Curriculum and Steiner pupils to this question, $X^2(2, N= 159) = 1.23, p = .540, r = .08$, there were significant age related differences $X^2(6, N= 159) = 24.43, p <.001, r = .39^{22}$. Further analysis suggests that the younger children (the 7- and 10-year-olds) were more likely to report that they spend more time drawing than previously (7-year-olds: $z = 2.7, p=.003$; 10-year-olds $z = 2.9, p =.002$). Furthermore, older pupils were more likely to report that they spent less time drawing (14-year-olds: $z = 2.9, p=.002$; 16-year-olds $z = 2.2, p=.020$). This evidence supports the perceptions of the teachers and the parents that there is an age related decline and that this occurs during pre-adolescence.

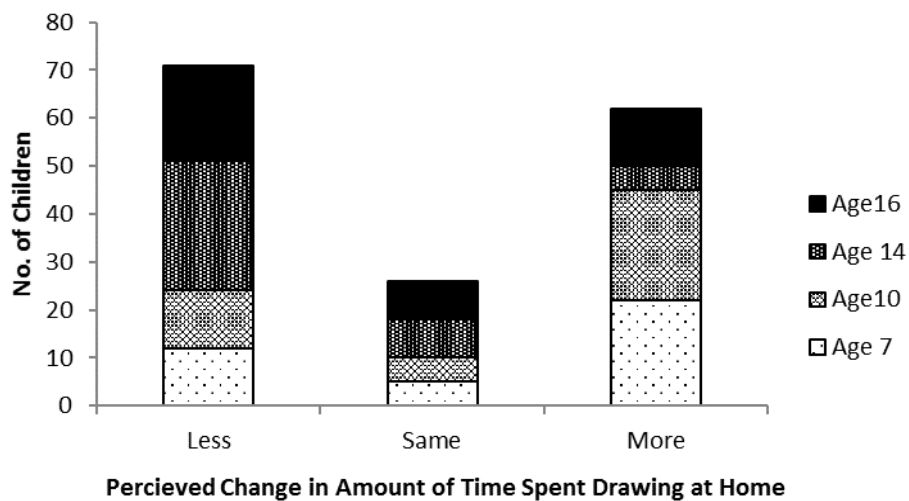


Figure 5.7: Children’s responses to “just thinking about the amount of time that you spend at home drawing, do you draw more, less or about the same as you used to?”

²² Children originally responded to this question on a five point scale (1 = a lot less, 5 = a lot more). However, in order to analyse this data using the Chi squared test of association responses were categorised into a three-point scale (1=less, 2 = the same & 3 = more) to avoid violating the expected frequencies rule. Due to the number of age groups being compared this reduced scale was also used for Figure 4 to increase clarity of findings and provide consistency with the statistical analysis.

Parents were asked a very similar question; ‘Does your child draw more, less or about the same as he or she used to?’ Responses to this are summarised in Figure 5.8. Similar to the children’s reports there was no evidence of any between-school differences in parents perceptions, $X^2(2, N= 77) = 1.17, p = .558, r = .12^{23}$. Due to the small number of responses in some categories, it was not possible to perform statistical analysis on these (as the expected frequencies rule would be violated). However, it appears that the parents of 7- and 10-year-old children are more likely to report that their children spend more time drawing. This supports the reports of the children above. However, age differences at age 14 and 16 are less clear-cut.

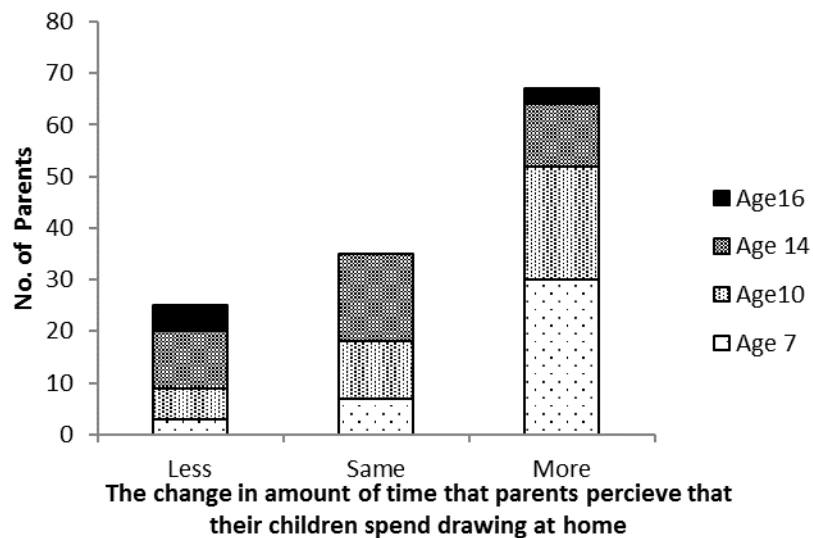


Figure 5.8: Parents’ responses to “just thinking about the amount of time your child spends at home drawing, do they draw more, less or about the same as they used to?”

The perceptions of the children and their parents reported above only include the data from those children who are still receiving regular art lessons at school, they

²³ Parents originally responded to this question on a five point scale (1 = a lot less, 5 = a lot more). However, in order to analyse this data using the Chi squared test of association responses were categorised into a three-point scale (1=less, 2 = the same & 3 = more) to avoid violating the expected frequencies rule. This reduced scale was also used for Figure 5 to increase clarity of findings and provide consistency with the statistical analysis.

do not include the responses from those National Curriculum 16-year-olds who had opted not to take an art GCSE. When the responses of these individuals were considered, there was some tentative evidence that once children opt out of studying the arts at school, their perceptions of the amount of time they spend drawing at home appears to decline. This can be seen in Figure 5.9. Conversely, for the other groups it seems that at age 16 over 50% of pupils perceive that they draw the same amount, or more than, they used to. Consequently, this data tentatively supports children's estimates of the amount of time-spent drawing at home. Therefore, although evidence does not support the presence of an age related decline for drawing it does suggest that once children chose to no longer study art at school the amount of time that they spend drawing also declines at home. However, it must be noted that this conclusion is somewhat speculative as the data collected is cross sectional rather than longitudinal and there are undoubtedly other factors that may contribute to a decline in the amount of time spent drawing. For example, it could be that those children who no longer enjoy drawing are those who opt not to take an art GCSE and spent little time drawing at home even when they were still studying art at school. Further consideration to this will be given below when the children's, parents and teachers own opinions on what contributes to a possible age related decline in the amount of time spent drawing are discussed.

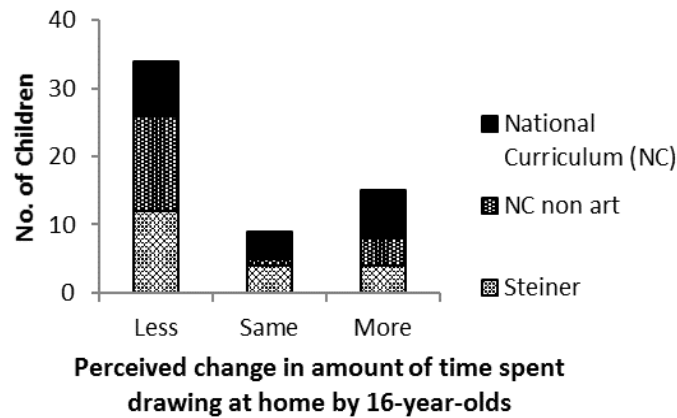


Figure 5.9: Responses from the oldest age group (16-year-olds) to the question “just thinking about the amount of time that you spend at home drawing, do you draw more, less or about the same as you used to?”

5.5.2 Reasons for Decline

Children, their parents and their teachers generally perceive that an age related decline occurs in the amount of time spent drawing. Furthermore, such a decline is often commented on in literature about children’s drawings (e.g. Cox, 2005; Jolley, 2010). Consequently, an aim of the current survey study was to investigate the perceived reasons for an age related decline. Accordingly all the participating children, their parents and teachers were asked why they thought that some children spent less time, or even stopped drawing altogether, as they got older. The responses from the children can be seen in Table 5.30, those from the parents in Table 5.31 and those from the teachers are discussed in the text below.

Table 5.30

Children's responses to the question 'Many children draw less or even stop drawing altogether when they get older. Why do you think this is?'

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 60	n = 60	n = 20	n = 20	n = 20
Too busy	50%	37%	40%	45%	55%
Developing other interests	28%	27%	20%	50%	20%
Don't like drawing	12%	13%	10%	10%	15%
Boredom & tiredness	17%	7%	5%	0%	5%
Part of normal development	17%	7%	5%	5%	15%
Low perceived ability	10%	7%	10%	10%	20%
Peer pressure	3%	7%	10%	0%	5%
Drawing not important	5%	2%	10%	10%	10%
Don't know	8%	15%	0%	0%	10%
Other	2%	10%	10%	0%	25%

Table 5.31

Parents' responses to the question 'Please list reasons why you think that drawing activity may decline as children get older?'

	National	
	Curriculum n = 35	Steiner n = 22
Developing other interests	74%	77%
Decline in perceived drawing competence	34%	27%
Academic pressures	17%	27%
Too busy - generic	9%	14%
Drawing isn't encouraged	3%	18%
Peer pressure	6%	9%
Normal development	6%	5%
There is no decline	3%	5%
Other	11%	9%

Children's and parents' opinions about why the amount of time that children spend drawing may decrease with age suggest that the time children used to spend drawing becomes filled with other things. For some children this time is filled with things that they have to do. For example, homework, household chores and employment were all activities mentioned by children that were coded as 'too busy'. Others report an increased interest, and participation in, other free-time activities. For example, spending time with friends, sporting activities and new hobbies were mentioned by both children and their parents and coded into the category 'developing other interests'. These responses very much echo those given by the children when they were asked to explain why they thought they would spend less time drawing as an adult. These tended to focus around a perception that there would be less time available for drawing (see Table 5.27). Consequently, it seems that decreasing free

time and diversifying interests are perceived to be major factors that contribute to an age related decline in the amount of time that children choose to spend drawing.

When the responses of the children were examined for between-school differences, the most apparent dissimilarity was that the frequencies for the various factors reported by the children attending Steiner, compared to National Curriculum schools, tended to be lower. However, the one notable exception to this overall pattern was the higher frequency of Steiner pupils children reporting that they ‘didn’t know’ why the decline occurred. Taken together this could suggest that Steiner pupils found the decline harder to explain than their National Curriculum counterparts. Reasons for this might be that Steiner pupils are less aware of an age related decline, possibly as they are surrounded by more adults still engaging in the arts and they themselves do not have the opportunity to opt out of studying the arts at school.

Overall the parents’ responses to the question about what they believe the potential causes of any age related decline to be reflect those of their children. Frequent responses were ‘developing other interests’, ‘academic pressures’ and ‘too busy’ An additional explanation highlighted in the parents’ responses was a decline in perceived drawing competence. This has also been commented on in the literature (e.g. Cox, 1992; Gardner, 1980). However, the children’s own explanations for why the amount of time spent drawing may decline do not reflect this, and nor is there evidence of any age related decrease in their perceptions of their drawing self-efficacy (see Section 5.2.5).

The finding that drawing self-efficacy does not decline with age adds to some rather mixed empirical findings in this area (Bonoti & Metallidou, 2010; Burkitt, Jolley & Rose, 2012; Flannery & Watson, 1991; Potter & Eden, 2001; Richards, 2003; Rosensteil & Gardner, 1977). However, when the age range of participants sampled are considered it seems that this may explain the conflicting results. Those studies

which found evidence for an age related decline were also those studies which included age groups of children as young as 4- to 5-year-olds and no children older than age 10 years in their sample (Bonoti & Metallidou, 2010; Potter & Eden, 2001; Richards, 2003; Rosensteil & Gardner, 1977) or a narrow age group of 8- to 10- year-olds (Flannery & Watson, 1991). Considering the evidence from these studies, and also from the current survey study it seems that the age related decline in drawing self-efficacy found in some of the earlier research might be a reflection of young children's 'wishful thinking' or tendency to overestimate their ability rather than a tendency for older children to underestimate their ability. Indeed, there is some empirical evidence to support this explanation as it has been found that younger children have a general tendency to overestimate their ability across many domains of expertise, and that a cognitive immaturity and an engagement in 'wishful thinking' has been suggested to account for these overestimations (Stipek 1984; Stipek & MacIver 1989). On the other hand, older children have an increasing competence in perceiving their own abilities correctly (Harter 1982; Newman 1984; Spinath & Spinath, 2005) and learn to present themselves in less boastful ways (Banerjee & Watling, 2005). Support for this overestimation among young children can also be found when children's ability to select drawings that they see as being 'like their own' are considered. For instance, Jolley (2010) reports that when young children are asked to indicate which figure looks most like how they draw a person they tend to choose human figure drawings depicting higher levels of representational realism over more age-appropriate drawings.

When the responses of the parents' are examined for between-school differences, the overall picture is actually one of many similarities. Nonetheless it does seem that the parents of Steiner pupils were more likely than those of National Curriculum pupils to report 'academic pressures', being busy and lack of

encouragement as factors that may lead to the decline. Initially this may seem surprising, as the curricula and anecdotal evidence about the parents' own values (e.g. Cox & Rowlands, 2000; Rose, Jolley & Charmin, 2012) suggests the contrary as Steiner schools emphasise the importance of drawing throughout the curriculum and parents are encouraged to make time for and to promote drawing activities. However, it may be that the Steiner parents' comments reflect the rather generic nature of this question and related to children in general, rather than their own children and experiences of children attending Steiner schools. Consequently, the responses may have reflected a perception among Steiner parents that these are important factors in explaining why the amount of time that children in general spend drawing may decline. Furthermore, this perception may reflect their own awareness of the values of the Steiner curriculum that parents are encouraged to follow, and a belief that if these factors were addressed then children in general would continue to draw.

The view that an age related decline in the amount of time that children chose to spend drawing is associated with decreasing free time and diversifying interests is reflected in the explanations for the decline given by National Curriculum schoolteachers. Forty-six percent of these teachers attribute the decline to the children developing a more diverse range of interests. Additionally, 38% attribute the decline to the children becoming 'too busy' and 38% refer to the increasing curriculum pressures, such as exams and homework, as a contributory factor. Individual National Curriculum schoolteachers mentioned other factors, such as 'lack of interest', 'low perceived drawing competence' and 'peer pressure'. Consequently, it seems that these are not perceived to be commonly contributing factors. Explanations for the decline were similar among the Steiner schoolteachers too. All these teachers mentioned diversifying interests as a contributory factor and individual teacher's referred to increasing curriculum pressures and young people becoming 'too busy'.

Consequently, it seems that the perceived reasons for the decline are similar among both Steiner and National Curriculum teachers and that these tend to reflect the perceptions of the children themselves and of their parents also.

Overall, it seems that the most frequently perceived explanations for any age related decline in the amount of time that children spend drawing focus on a reduction in time available. This reduction in time available is generally attributed to two factors, firstly children having less free time due to increasing academic pressures and an expectation for them to undertake more household chores and secondly children choosing to spend what free time they have available engaged in other activities. Other potential explanatory factors commented on in the literature such as decreasing self-efficacy are commented on by some parents, children and teachers, however when children's own reports of their drawing self-efficacy are considered there is little evidence of this decreasing among the older children who are still studying the arts at school.

5.5.3 Does the Decline Matter?

All children, parents and teachers were asked whether they thought that any potential decline in the amount of time that children spent drawing mattered. The children's responses to this question can be seen in Figure 5.10. The evidence clearly suggests that the majority of children responded that the decline did matter or that it depended on the reasons for the decline whether it mattered or not. There was no evidence of between-school differences, this was confirmed by a Chi Squared test of association, $X^2(2, N=120) = 0.76, p = .684, r = .08$ (age 7 to 14 years), $X^2(2, N=60) = 4.38, p = .112, r = .27^{24}$ (age 16 years).

²⁴ This analysis could not include the two children (Steiner pupils) who claimed that a decline did not matter, as their inclusion would have resulted in the expected frequencies rule being violated.

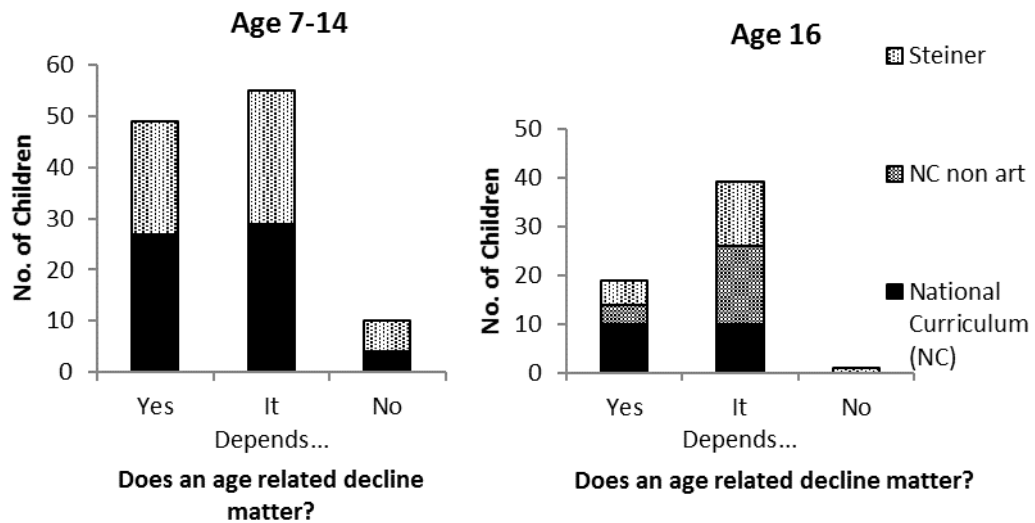


Figure 5.10: Children’s responses to the question: ‘Do you think that it matters that children draw less as they get older?’

To gain further insight into why children think that a decline mattered, or did not matter, they were asked to explain their response to this question. These explanations are summarised in Tables 6.32 and 6.33. The explanations from the older pupils are not reported in these Tables as the number of pupils responding was 10 or less and consequently it is unlikely that the responses are representative of the wider population. Furthermore, there is no table presenting the explanations for why children thought it did not matter if the amount of time spent drawing declined, as there were too few responses for content analysis to be carried out.

Table 5.32

Children's explanations for why an age related decline in drawing does matter

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 25	n = 18	n = 10	n = 2	n = 8
Loss of drawing skill	32%	6%			
Enjoyment	12%	17%			
Creativity/imagination	0%	17%			
Expression/communication	6%	4%			
Relaxation	12%	6%			
Career	8%	6%			
Aids learning	4%	11%			
Exercises	4%	6%			
Don't know	12%	6%			
Other	20%	22%			

Children expressed a variety of explanations for their responses and there were a number of between-school differences. Children from National Curriculum schools thought that a loss of drawing skills was the most negative consequence of any decline in the amount of time that children spent drawing. In comparison, children from Steiner schools were more likely to comment on the loss of enjoyment, opportunity to develop creativity and imagination and the role that drawing can play in aiding learning across other subjects. These responses suggest that Steiner pupils might be more aware of the potential wider benefits of drawing whereas National Curriculum pupils may be more likely to focus on drawing for drawing's sake.

Table 5.33

Children’s reasons for why they responded that it depended when asked ‘Do you think that it matters that children draw less as they get older?’

	Age 7 to 14		Age 16		
	National Curriculum	Steiner	National Curriculum Art	National Curriculum non art	Steiner
	n = 27	n = 33	n = 7	n = 13	n = 12
Individual choice	26%	42%		46%	58%
Normal development	26%	9%		15%	8%
Talent	11%	3%		15%	8%
Career	4%	9%		0%	8%
Benefits vs. other activities	0%	9%		23%	17%
Don't know	15%	27%		0%	8%
Other	19%	6%		15%	8%

Children’s explanations of why it depended on other factors whether it was a good or bad thing that children chose to spend less time drawing as they got older are presented in Table 5.33. The explanations from these children reflected their opinion that it was up to the individual child, what they enjoyed and what they wanted to do with their time. These comments that it was the child’s ‘individual choice’ were particularly frequent among the Steiner school pupils. Whereas National Curriculum school pupils also frequently commented that it was ‘normal development’, making comments such as ‘it is part of growing up’ and ‘it is just what happens’. These comments are very similar to those made by National Curriculum pupils who explained an age-related decline as being ‘part of normal development’. This suggests that among these pupils there is a perception that drawing is something that some children will grow out of and that this is to be expected.

Parents were also asked whether they thought a decline mattered and to explain their response. Not all parents answered this question, however the responses from

those that did are summarised in Figure 5.11, Tables 6.34 and 6.35. From Figure 5.11 it can be seen that an approximately equal number of parents of National Curriculum pupils believed that a decline did matter as believed that it did not matter. In contrast, the majority (80%) of the parents of Steiner pupils believed that the decline mattered. This increased concern among Steiner parents is unsurprising as it reflects the increased emphasis and value placed on the arts in Steiner schools.

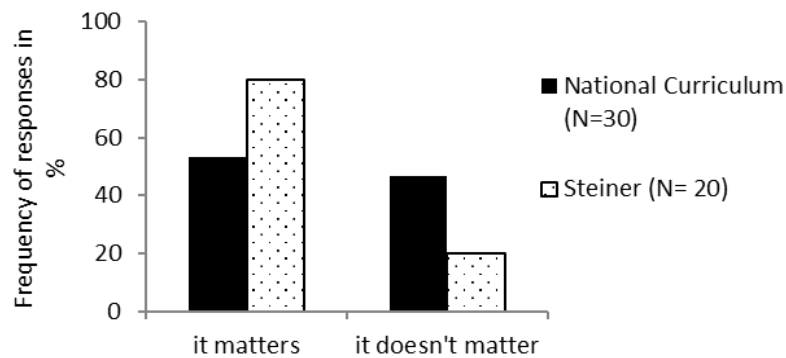


Figure 5.11: Parents' responses to the question 'Do you think that any decline in children's drawing matters?'

Parents' explanations for why they thought a decline did matter are presented in Table 5.34. It is evident that the majority of parents from both school types thought the main reason was a loss of opportunity for 'developing expression and creativity' and that this was particularly emphasised by parents of Steiner school pupils. This is also likely to reflect the increased emphasis placed on expression and creativity within the Steiner Curriculum. Furthermore, this emphasis is echoed in the responses of the teachers of the Steiner pupils. Of the five teachers interviewed all but one believed that a decline did matter and all explained that a reduction in the amount of time spent drawing would mean a loss of opportunity for expression and creativity. In contrast the parents, and teachers, of National Curriculum school pupils were more likely to comment on a loss of drawing skill or reduction in 'career prospects' than their Steiner

school counterparts. This increased focus on drawing for drawing sake – rather than the perceived wider benefits – was also reflected in the comments of the National Curriculum pupils themselves. This increased focus on drawing as a separate skill among those associated with the National Curriculum could reflect how drawing is taught within these schools as a separate subject lesson. Whereas in the Steiner schools drawing is integrated into all subject lessons there is a belief that all new subject matter should be introduced through the arts (Carlgren, 2008).

Table 5.34

Parents' explanations for why it does matter if children spend less time drawing as they get older.

	National Curriculum n = 16	Steiner n = 16
Developing expression and creativity	63%	88%
Drawing is relaxing	19%	19%
Drawing aids personal development	13%	13%
Children loose a skill	19%	6%
Career Prospects	13%	6%
Other	6%	0%

Parents' responses for why an age-related decline of the amount of time spent drawing might not matter are presented in Table 5.35 below. Only the responses from the National Curriculum parents are presented as just four Steiner parents thought that a decline did not matter and so any analysis of their responses would have been unlikely to be representative of the wider population. The responses of the National Curriculum parents tended to focus on it being the child's own choice whether they

continued to draw as much with suggestions that ‘diversifying interests’ and ‘career’ aspirations might influence this choice.

Table 5.35

Parents’ explanations for why it does not matter if children spend less time drawing as they get older.

	National Curriculum n = 14	Steiner n = 4
Individual Choice	43%	
Diversifying Interests	21%	
Career	21%	
Don't know	14%	
Other	14%	

Teachers from both school types were also asked whether they thought the decline mattered. Eighty per cent of Steiner teachers responded that it did and explained this through the loss of opportunity for expression and creativity. Similarly, 77% of National Curriculum school teachers also responded that the decline mattered with 62% explaining this through the loss of opportunity for expression and creativity.

Overall, it seems that most children think that a decline does matter or that it depends on other factors, such as whether the individual wants to continue to draw, enjoys drawing or has a talent for drawing. The National Curriculum pupils tend to explain their responses by focusing on potential loss of drawing skill and it being part of ‘normal development’ that children may choose to draw less as they get older. In comparison Steiner pupils tended to make more comments about the potential loss of opportunity for creativity and expression. This concern is also reflected in the comments of their parents and teachers, who perceive that any decline in drawing does matter due to a lost opportunity for creativity and expression. Conversely, the parents and teachers of the National Curriculum pupils are equally likely to say that a decline

does not matter as they are to say that it does matter. Their explanations for why the decline matters are similar, with many commenting on the loss of opportunity for creativity and expression, however some parents also comment on the loss of drawing skill, echoing the concern voiced by their children. The National Curriculum parents' explanations for why the decline does not matter also tended to be similar to those of their children: focusing on individual choice, diversifying interests and differing career plans.

5.5.4 What to do About the Decline?

Children, their parents and teachers, were asked what could potentially be done to prevent the decline. The children's responses are considered first, these are presented in Table 5.36. The most frequent responses were more 'time and opportunity' and 'encouragement'. These responses are similar to those that the children gave when asked why they thought that some children might spend less time drawing as they got older. More 'time and opportunity' and also 'encouragement' would support children who may need help to find the time to draw as other demands on their time increases. Furthermore, the children's suggestions for more freedom and diversity in 'drawing activities' may increase children's enjoyment of drawing, was another proposed reason for the decline. In particular, children suggested a wider choice of art materials and more freedom to choose topics of interest to them as well as more novel activities such as 'designing magazine covers', 'abstract art', 'letter art', and 'community projects'.

Table 5.36

Children's responses to the question 'How do you think children could be encouraged to draw more as they get older?'

	Age 7 to 14		Age 16		
	National Curriculum n = 60	Steiner n = 60	National Curriculum Art n = 20	National Curriculum non art n = 20	Steiner n = 20
Time & Opportunity	28%	22%	42%	20%	29%
Encouragement	15%	17%	21%	15%	35%
Drawing Activities	12%	19%	21%	20%	18%
More help	17%	10%	16%	45%	12%
Ideas	7%	10%	5%	0%	12%
Media	8%	0%	5%	5%	0%
Adults	3%	2%	0%	0%	6%
Nothing	7%	5%	0%	5%	0%
Don't know	10%	31%	5%	5%	24%
Other	7%	8%	0%	10%	12%

Although there are some small between-school differences in the frequency of responses from the younger pupils the most notable between-school differences are evident in the responses of the older pupils. In particular it seems that the National Curriculum pupils enrolled in GCSE art were particularly likely to cite more 'time and opportunity' for drawing as a solution. This might reflect their own struggles to balance their studies. National Curriculum pupils no longer studying art were the most likely to suggest providing children with 'more help' with drawing. This might also reflect the personal experiences of these pupils, who may have felt that their drawing skills were not 'good enough' for them to take an Art GCSE.

The parents' suggestions for arresting and age related decline are summarised in Table 5.37, these are strikingly similar to the responses made by the children. The most frequent suggestion was more 'time and opportunity' for drawing. Some also made more specific suggestions about how the profile of art could be raised in schools

through ‘including more creative activities in homework’, ‘more funding for art in schools’ and ‘integrating drawing into more subjects at school’. Other parents, and particularly those of children attending Steiner schools, suggested that more support at home was needed, for example, ‘increasing parent’s awareness of the benefits of drawing’, ‘restricting use of computer/television to create more time for drawing,’ and ‘for parents themselves to sit down and draw’. These views concerning the importance of parental support for drawing may reflect the values which Steiner parents are encouraged to adopt, including reducing time their children spend engaged with technology in favour of activities advocated to develop their imagination (Nicol & Taplin, 2012).

Table 5.37

Parent’s responses to the question: What do you think could be done to help stop this decline?

	National Curriculum n = 35	Steiner n = 20
Time and opportunity	29%	25%
Raise profile of art in school	26%	25%
Support for drawing at home	17%	35%
Encourage and build confidence	20%	20%
Make art more fun	11%	10%
Help to develop skills	6%	15%
Promote art in the media	3%	5%
Promote art as a career	0%	5%
Nothing	3%	15%
Don’t know	17%	15%
Other	0%	10%

Consideration of teachers' views for halting an age related decline were also considered. All the Steiner teachers emphasise the important of making drawing fun and interesting. Individual teachers talked about their own experiences with new drawing materials (e.g. charcoal and oil pastels) and styles (e.g. Egyptian proportions of the body) and allowing children freedom to explore different styles such as Manga. Many of the National Curriculum schoolteachers also suggested that making drawing activities more inspiring would help to arrest the decline. However, their suggestions of how to make drawing more inspiring were more generic compared to those of the Steiner teachers. For example, their suggestions included, 'having more displays of art work in schools', 'having artists visit the school', 'giving the children freedom to draw topics that they are interested in' and providing 'access to different media'. This emphasis on making drawing fun and inspirational may reflect a view that in order for children to continue to spend time drawing as they get older, drawing has to compete with the numerous activities that children have a choice of engaging in. Consequently, making drawing more fun and interesting is vital, as if simply more time is made available (the suggestion made most frequently by parents and children) children may decide to spend it doing other, more attractive, leisure activities.

5.5.5 Conclusions about an Age Related Decline of the Amount of Time Spent Drawing

Although children, their parents and their teachers acknowledged that an age related decline in the amount of time spent drawing occurred there was little agreement about when this occurred and no evidence for it in the children's reports of the time that they spent drawing. Instead, the only group of pupils who were found to spend less time drawing were those National Curriculum pupils who had opted not to take an art GCSE. When the children, their parents and teachers are asked why the amount of time spent drawing might decline the most frequent responses reflect the

increasing demands on children's time and an increased choice of activities that they can choose from in their free time. Consequently, to encourage children to keep drawing as they get older drawing activities must be fun and inspirational, as they must compete with the abundance of other pastimes that children may choose.

Overall, there were many similarities between the responses from individuals at the two school types. In particular, estimates of the amount of time that children spent drawing, perceptions of drawing ability and when an age related decline might occur were very similar. However, some between-school differences were evident among the qualitative responses to questions asking the participants to provide explanations. Overall, these differences tended to reflect the emphasis within Steiner schools of the wider benefits of drawing, in particular creativity and expression. Furthermore, the pupils in Steiner schools seemed not only to be aware of these wider benefits of drawing but also to value drawing for drawing's sake, talking about enjoyment of drawing and wishing to continue developing their drawing skills. In comparison the National Curriculum school pupils and their parents tended to perceive a decline in the amount of time spent drawing as reflecting 'normal development' more frequently and that drawing was something to be engaged with when more time was available or if drawing skill was necessary as part of a career choice. This may reflect the age related change in emphasis within the National Curriculum with drawing becoming an optional subject at age 14 and more emphasis being placed on subjects perceived to be 'more academic' from an even younger age. This 'squeezing out of the arts' within National Curriculum schools is commented on, and lamented by researchers such as Downing (2003) and commented on in reviews such as Cambridge Primary Review (2009) and 'Making a mark: art, craft and design education' (Ofsted, 2012).

5.5 General Discussion of the Survey Data

In this Section the findings from the survey study, reported and discussed in the previous three Sections, are summarised. First the findings are considered in the context of the predictions made at the end of Section 5.1.1. Secondly, an overall evaluation of the evidence from the surveys is developed. To conclude, implications and directions for future research are considered.

5.5.1 Comparison of Findings with Predictions Made

At the end of Section 5.1.1 a number of predictions were made. These will be considered prior to discussing other areas of the survey which were more exploratory in nature due to limited previous research and less stark differences between the two curricula.

Prediction 1. It was anticipated that Steiner pupils would spend more time drawing, enjoy drawing more and have more positive perceptions of their own drawing ability compared to their National Curriculum counterparts. Furthermore, it was anticipated motivations for engaging in drawing and preferences for drawing particular subject matter might also differ between these two groups of pupils. Overall these predictions were not supported as the anticipated between school differences were not found in the data.

The children's reports of the amount of time spent drawing at school, enjoyment of drawing and drawing self-efficacy indicated that there were no significant between school differences among the 7-, 10- and 14- year olds children. Among the 16-year-old pupils time spent drawing at school, enjoyment levels and drawing self-efficacy remained high among those National Curriculum pupils who had chosen to take an art GCSE and among the Steiner pupils. However, among the National Curriculum School pupils not studying an art GCSE time spent drawing at

school, enjoyment levels and self-efficacy were significantly lower. Consequently, the data presented suggests there is no difference in time spent drawing at, enjoyment levels or self-efficacy between children attending National Curriculum and Steiner schools until age 14 when those National Curriculum pupils who opt not to study an art GCSE report less time spent drawing and lower drawing self-efficacy and enjoyment of drawing.

The data suggests that there are no difference in the amount of time that Steiner and National Curriculum pupils spend drawing at school. This finding is surprising considering the very strong emphasis within the Steiner Curriculum on drawing, advocating that it is included in all subject lessons (Carlgren, 2008). Furthermore, the validity and reliability of the children's estimates of time spent drawing collected in the survey study could be questioned. Potentially, Steiner pupils might be more likely to underestimate the time spent drawing at school as they do not have a dedicated art lesson up to the age of 12. This could result in children not considering all the time that they spend drawing as it was integrated into a lesson where the emphasis was on the subject being taught (rather than the drawing activity). Additionally, due to the frequency of the drawing activities the Steiner pupils may find it harder to mentally add up the time within various subject lessons which is spent drawing, whereas National Curriculum pupils needed to simply recall the length of the whole of the art lesson for their estimates. Support for this interpretation can be found among the estimates of the teachers as Steiner teachers estimated that their pupils spent on average twice the amount of time drawing in an average week at school compared to the estimates of teachers of the National Curriculum pupils. Future research, such as time diaries or experiencing sampling method, could be used to try and gain more reliable quantification of the amount of time that children spend drawing.

Children's estimates of time spent drawing at home also showed no significant

between-school differences. Furthermore, the time estimates made by parents suggested that it may, contrary to the prediction made, be the National Curriculum pupils who spend more time drawing at home. It is possible that Steiner pupils may spend less time drawing at home than initially anticipated as due to the emphasis within the curriculum they might feel that they have had ample opportunity and freedom to draw their own pictures at school. Alternatively, as the parents of Steiner pupils reported less frequently spending time sitting and talking to their children about their drawings they might be less aware of the time spent, and consequently underestimate it. As with the estimates for the amount of time spent drawing at school future research using an alternative methodology such as time diaries or experiencing sampling method would enable more reliable quantification and insight into any between-school differences if they exist.

Overall the subject matter that children reported including in their drawings was very similar between the two school types. Perhaps this should not be surprising as comparison of the data collected in the survey and reports from Maitland (1895) and Ballard (1912, cited in Lark-Horowitz, Lewis & Luca, 1967) suggest that the content of children's drawings has remained remarkably consistent over time. Similarly, it appears that there were many commonalities among the motivations of National Curriculum and Steiner pupils for engaging in drawing. Both groups of pupils reported a desire to keep occupied and social motivation as their most common motivation. Although there was an overall picture of commonalities among the motivations of the two groups Steiner pupils seemed to be more aware of the wider benefits of drawing, whereas National Curriculum pupils were more focused on drawing to improve their drawing skill. It could be argued that this difference is a reflection of the way that drawing is taught in the two school types. Whereas in National Curriculum schools art is a separately timetabled lesson for all pupils and for a GCSE pupil can be a distinct

subject that they either opt to take or not take, in Steiner schools there are no separate art lessons for pupils up to the age of about 12-years-old, instead the aim is to include the arts in the teaching of all subjects. Consequently the approach to drawing is embedded and a more holistic approach is taken rather than art being separated out as a distinct subject, with a particular skill set requiring development.

Prediction 2. It was anticipated that teachers and parents from Steiner schools would express higher regard for drawing, reporting more benefits and placing greater importance on the role of art education. In particular, it was predicted that these parents, teachers, and also the pupils themselves would make more comments about the expressive and creative value of drawing. These prediction was supported by the data as it was found that Steiner teachers and parents reported a greater number of benefits of drawing and rated its importance within the educational context more highly than their National Curriculum counterparts. Furthermore, teachers, parents and children from Steiner schools also emphasised the expressive and creative benefits associated with engaging in drawing. Consequently, it seems that all those associated with the Steiner schools are more aware of the benefits of drawing and believe drawing to be more important compared to those associated with National Curriculum schools. This supports the predictions made and reflects the increased emphasis on drawing present throughout the Steiner Curriculum. Furthermore, these findings support the anecdotal comments made by Cox and Rowlands (2000) and Rose, Jolley and Charman (2012) that Steiner parents may value the arts more highly.

Prediction 3. In terms of the types of help that parents and teachers offered and that pupils reported receiving it was expected that in National Curriculum schools there would be a greater focus on the development of representational skills whereas in Steiner schools there might be more comments about expression and imagination. Furthermore, it was anticipated that these difference would be particularly salient

among the younger children. However, as many participants gave generic answers (demonstrations, tips for improvement, skill development) it is unclear whether there is an emphasis on realism or expression and imagination by either group. However, some insight into this can be gained when art values are considered. This data suggests that there are actually few differences in the extent to which those associated with National Curriculum schools and those associated with Steiner schools value imagination, expression and representation in children's drawing. Instead it seems that imagination and expression is valued more highly than representation by both groups. Consequently, it is possible that although there are differences in the curricula the art values of teachers and parents are more a reflection of the general art culture, rather than the specific school culture, and within this culture the arts are valued for their expressive and imaginative attributes.

It was anticipated that parents whose children attended Steiner, compared to National Curriculum schools, would report more frequently sitting and talking with their children while they were drawing. Overall little support was found for this prediction. Indeed, the reverse pattern was found, as it was the National Curriculum parents who significantly more frequently sat and talked with their children. Although it was anticipated that Steiner parents would be more involved in their children's drawing experiences it might be that actually these parents, whilst very supportive of their children's drawing endeavours, take a view that their children should not be interfered with while drawing. Indeed, in Steiner kindergartens the approach is taken that a child's drawing is a sensitive artistic creation, in that it makes something visible out of the child's inner world. In the same way that we would not presume to ask van Gogh to make his sunflowers a bit brighter or include a few poppies, Kindergarten teachers would not intrude on the artistic activity of the young child but just make the materials available and leave the child to create their own drawing (Nicol & Taplin,

2012). This approach, which parents of young Steiner school pupils are encouraged to adopt, may remain as the child moves out of Kindergarten and into the school years. Furthermore, as the children's art work is so clearly valued as part of their school work parents may not feel the need to support their children further in drawing. It is also possible that as children's artistic skills increase, especially under the guidance of an artistically talented class teacher, parents may quite soon feel that their children's skills exceed their own.

Prediction 4. In terms of any decline in the amount of time that children spent drawing it was anticipated that in general this would be reported to occur later among Steiner pupils and that any decline would be seen more negatively. Little evidence was found in the estimates of time spent drawing for an age related decline among pupils at either school type. However, there was some evidence of a decline in those National Curriculum pupils who had chosen not to study the arts. These pupils estimated that they spent significantly less time drawing at home and school compared to those National Curriculum pupils still studying art and the Steiner pupils. Consequently, although little support was found for an age related decline, tentative support was found for this prediction among the 16-year-old. The emphasis on the arts within Steiner schools and the broad curriculum requiring pupils to study all subjects while they remain at school seems to result in Steiner pupils continuing to spend time drawing both at home and at school. In contrast the forced choice which National Curriculum school pupils have to make about which subjects they will continue to study at age 14 seems to result in pupils who chose not to continue to study art spending less time drawing at home as well as at school.

The second part of this prediction, that the attitudes of those associated with Steiner schools would be more negative about a decline compared to those associated with National Curriculum schools was partially supported by the evidence. Parents and

teachers of Steiner school pupils were more likely to report that it did matter compared to those of National Curriculum school pupils. In contrast, among the children there was no difference in the frequencies with which Steiner and National Curriculum pupils reported that the decline did or did not matter. However, when their explanations for whether the decline mattered or not were considered some interesting between-school differences were evident. These seem to suggest that a decline mattered for National Curriculum pupils as it would result in a loss of drawing skills whereas the Steiner pupils believed that it would matter due to a loss of the wider benefits which they seemed to associate with drawing. This suggests that Steiner pupils might be more aware of the wider benefits of drawing and this may potentially reflect the greater value placed on drawing and emphasis on its wider benefits by their parents and teachers.

5.5.2 Overall Discussion of Findings

The findings from the survey study add to our understanding of children's experiences of drawing both at home and at school. Although there have been a plethora of research studies in the area of children's drawing spanning over 150 years these have tended to focus on the drawings that children produce, rather than their attitudes towards drawing and how their drawing experiences have been shaped by others. There has been some preliminary research considering attitudes and practices relevant to children's drawing experiences (for a review see Rose, Jolley & Burkitt, 2006 and the more recent studies of Burkitt, Jolley & Rose, 2012; Hallam, Lee & das Gupta, 2011; Malin, 2013). However, these studies have focused on just one type of educational setting and often just the perspective of one key player, such as the children or the teachers. Consequently the findings from the current survey study significantly extend our understanding of children's attitudes and experiences as data from all three key players, the children, their parents and teachers was gathered from

both schools teaching the National Curriculum and schools following the teaching principles of Rudolf Steiner.

Overall a positive picture of children's attitudes towards drawings was identified as the majority of children reported that they enjoyed drawing and were relatively confident about their own drawing ability. These positive perceptions support the previous research in this area (Burkitt, Jolley & Rose, 2010; Watts, 2005). Furthermore, they extend these findings as the current data indicates that these positive attitudes continued into adolescence. In accordance with these positive attitudes little evidence was found for an age-related decline in the amount of time that children chose to spend drawing, something much speculated about in the literature (e.g. Cox, 2005; Jolley, 2010). Instead it was found that drawing remained frequently practiced and much enjoyed by children for as long as they were engaging in regular art lessons at school. This suggests that drawing at school may encourage and inspire children to continue to draw at home. Consequently, if we want to take action to encourage drawing among older children, and the adult population, we must consider how individuals can be encouraged and inspired once they no longer receive regular drawing practice within the school environment.

When the responses from those participants associated with National Curriculum schools were compared to those associated with Steiner schools few between-school differences were found. This was somewhat unexpected as based on the differences documented in the two drawing curricula it had been anticipated that the Steiner pupils would have more positive attitudes. Potentially the similarities in attitudes may reflect the wider social context rather than the particular school environment. This social context, for example the media, art materials and attitudes in the general population, in which children experience art and drawing might be more influential to children's attitudes to drawings than their school based experiences. If

this is the case it could be particularly relevant to the interpretations made within cross-cultural literature (e.g. Cox, Perara & Xu 1998, 1999; La Voy, Pedersen, Reitz, Brauch, Luxenberg & Nofsinger, 2001; Burkitt, Tala & Lowe, 2007; Haanstra, Danien, & Hoorn, 2011) on children's drawings as it may suggest that children's drawing experiences might be more influenced by cultural rather than school based differences.

An alternative explanation of the similarities in drawing attitudes is that the children's experiences within the two school types may not be as different as the curricula might suggest. There is some tentative evidence for this from the responses gathered as it appears that teachers and parents associated with both school types value expression and creativity in children's drawing more than realism and that all provide graphical demonstrations, encouragement and tips for improvement. On the other hand, there is also evidence of some differences. Steiner parents reported spending less time sitting and talking with their children and appeared to provide fewer guidelines or direct support for the development of drawing skills. Similarly there was evidence to suggest Steiner pupils experience more freedom, less direct involvement and fewer detailed expectations in their school based drawing experiences. In contrast, National Curriculum pupils seemed to experience more direct involvement with teachers setting more detailed expectations and both teachers and parents intervening in the drawing process more frequently. This finding may in part reflect that drawing is not taught as a separate subject lesson in Steiner schools until the children are approximately 12 years old and that parents may consider that although children's drawing should be encouraged they should not be influenced or interfered with while drawing.

Throughout the history of drawing education there has been considerable debate about the extent to which drawing should be explicitly taught with some believing that adult intervention may have a negative influence on children's drawing

development (e.g. Arnheim, 1974; Lowenfeld, 1939). This non-interventionist approach has been criticised for being based on an assumption that children will develop best on their own and reducing the role of the teacher to one of ‘a dispenser of art materials and fountain of emotional support’ (Eisner 1976, p7). However, this approach has been suggested to be dominant within Western art education. For instance, Braswell (2006) argued that many western parents and teachers support children’s drawing development through the provision of materials, the opportunity to engage with them and the providing of inspiration rather than any direction or instruction concerning skill development. In contrast, the findings of the survey study seem to suggest that children, and particularly those in National Curriculum schools, may be experiencing more direct involvement from adults in their drawing experiences than this approach would suggest. This highlights the value of having the reports from all three key players involved in children’s drawing experiences. Whilst some of the reports from parents and teachers reflected this non-interventionist approach, similar to data referred to by Braswell, the children’s responses suggest that actually they perceive that they are receiving some direct intervention from adults.

It appears that both Steiner and National Curriculum school teachers are providing more support for their pupils in their drawing than simply providing materials and emotional support. Even the Steiner teachers, who are reported by the children to intervene less than their National Curriculum counterparts, are providing demonstrations and tips for improvement. Nonetheless, the approach being taken by these teachers is not as directive as that taken in eastern cultures such as China. Here drawing techniques are explicitly taught with teachers providing graphic models and giving directive instructions (Gardner, 1989; Jolley & Zhang, 2012; Winner, 1989). These different approaches to nurturing the development of children’s drawing skills reflect much larger debates within developmental psychology about how children

acquire new skills – the role of the child’s interaction with the environment around them (e.g. Piaget, 1962) and scaffolding by more able others (e.g. Vygotsky, 1978 and Bruner, 1996) and explicit instruction (Rosenshine, 1986). It appears from the survey data collected that both National Curriculum and Steiner pupils experience scaffolding from teachers, parents and also more able peers.

5.5.3 Future Research and Implications

Ascertaining the amount of time that children spend drawing is a fundamental question which has received very little attention during 150 years of research in children’s drawings. Although the data presented in the current survey study provides some evidence to address this, data is based on estimates which may not always be reliable. Consequently, future research could benefit from using the experiencing sampling method to investigate the amount of time that children spend drawing at home and school and how these may differ dependant on type of school and also the age of the child (this suggestion was discussed in more detail in Section 5.2.1). This would provide insight into between-school differences and also the occurrence of any age related decline in the amount of time that children spend drawing. As well as addressing a fundamental developmental question such understanding would also be of value within school art education and to campaigns to promote drawing. By identifying when an age related decline begins to occur action could be taken inspire this age group to draw, both at school and in the wider community.

Through the surveys some insight has been gained into the types of help that children receive when engaged in drawing, however, the content and intentions behind this help and the frequency with which it is offered require further investigations. Some insight into the intentions which motivate the help that is offered could be gained using interviews and observational research in the children’s classroom and homes could provide more detailed understanding of the content and frequency of the

help provided. The practicalities and challenges of carrying out such research were discussed in Sections 5.3.1 & 5.3.2. Such investigations would provide greater insight of how help provided may influence children's own drawing skills, attitudes and art values. This understanding could in turn be used to inform the content of art education policies and training for art teachers. Within England this could help to address the uncertainty that teachers express in how to deliver the National Curriculum for Art and Design (Anning, 2002; Ofsted, 2009) and the varying quality of art lessons as identified by the latest Ofsted report (Ofsted, 2012). Furthermore, such understanding could be of value internationally. Insight gained into the types and frequency with which help is offered and the outcomes for children's drawing skills and attitudes would add to, and inform, the debate of the extent to which children should develop their drawing skills without adult interference in contrast to drawing techniques being explicitly taught.

The benefits of drawing reported in the survey study are in line with those widely reported benefits based on case studies and anecdotal evidence (e.g. Barnes, 2002; Cox, 2005; Golomb, 2004; Jolley, 2010; Mathews, 2003). Furthermore, as benefits reported included cognitive, emotional and social benefits associated with drawing the evidence lends weight to current campaigns (e.g. Campaign for Drawing, 2013) that aim to raise the profile of drawing and to increase its status and frequency in educational settings. However, there is little experimental research to support claims of the perceived benefits. In particular there is a need for research to evaluate the perceived social and emotional aspects. Clearly operationalizing variable such as these may be problematic, and indeed has been so when attempting to evaluate the perceived cognitive benefits of drawing (e.g. Moga, Burger, Hetland & Winner, 2000). Nonetheless, if found to be supportive of at least some of the perceived benefits such

research would be extremely valuable to campaigns promoting drawing within schools and the wider community.

As mentioned above there are campaigns to promote drawing through providing opportunities and activities to engage people of all ages in creative activities (e.g. 'The Big Draw', 2013a; 2013b). However, the effectiveness of such campaigns has not been evaluated and it is possible that the events may be primarily accessed by those already valuing the arts. The findings from the survey study suggest that when children stop studying the arts at school many will spend less time drawing and report more negative attitudes towards drawing. To increase the effectiveness of such campaigns events and projects aimed at increasing engagement and enjoyment of drawing among individuals who had opted at age 14 not to study an art GCSE could be developed. Furthermore, an action research (Stringer, 2007) approach could be used to evaluate and develop effective strategies to increase engagement and enjoyment among those who have developed more negative attitudes towards drawing.

5.6 Overall Conclusion

Although not all the predictions were supported and overall fewer between-school differences were identified than anticipated the evidence from the survey study provides new and valuable insight relevant to our understanding of children's experiences of drawing both at home and at school.

CHAPTER 6: CONCLUSION

Initially the findings are briefly summarised with reference to the aims outlined in Section 1.6. This summary is brief as the findings have already been discussed in previous Chapters. The next section of this Chapter considers the extent to which the findings in this thesis make a contribution to our understanding of children's drawing development. Particular attention is given to potential applications for the findings and suggestions are made for future research. An evaluation of the evidence presented and further suggestions for future research are then considered before a final summary is made.

6.1 Have the Aims and Objectives been met?

Empirical evidence addressing the first aim, investigating drawing ability and styles among National Curriculum and Steiner Pupils, was presented in Chapters 3 and 4. These suggested that overall there were fewer between-school differences in drawing ability than initially anticipated. In particular there were no consistent between-school differences identified in the four measures of expressive drawing ability (the use of line, colour and composition and overall quality). Furthermore, no consistent between school differences in ability in free drawings were identified. However, when representational drawing ability was considered Steiner school pupils were found to outperform their National Curriculum school counterparts. Additionally, when drawing styles were considered there was some evidence of Steiner pupils producing more colourful, scene based drawings which filled more of the page. Furthermore, investigation of the creative intentions behind drawings suggested that Steiner pupils were more likely to produce drawings based on imagination and a desire to express themselves. In contrast National Curriculum pupils were more likely to depict objects from memory and from their immediate surroundings. These between-

school stylistic differences reflect the art values emphasised within the Steiner approach. However, the lack of differences found in expressive drawing ability appear not to reflect the greater emphasis on imaginative and expressive drawing in Steiner pedagogy. Furthermore, the superiority of Steiner pupils' representation drawing ability appears to contravene this emphasis. Consequently, the art values inherent within the education system appear to influence the style and source of the content, but their impact on drawing ability is less clear.

In Chapter 5 the second aim was addressed, investigating children's, teachers' and parents' attitudes and practices relevant to National Curriculum and Steiner pupils' drawing experiences. Survey data concerning these attitudes and practices suggested that although there were between-school differences in the help experienced when drawing and the attitudes of parents and teachers there were actually more similarities among the attitudes and practices of children than had been anticipated. Consequently, it seems that although the attitudes of teachers and parents may differ this has minimal influence on children's own drawing practices and attitudes. Although the child participants in the survey and drawing studies were not the same individuals and therefore links between the two sets of findings can only be speculated on. It does seem that possibly the non-interventionist approach taken by many Steiner teachers and parents, and reported by their children, may enhance ability to create representational, life-like, drawings. This is somewhat surprising as drawing life-like representations is recognised as being a difficult task (Cohen & Bennet, 1997; Freeman, 1970). Accordingly it could be assumed that increased scaffolding from more knowledgeable others would improve representational drawing ability. However, evidence presented in this thesis appears to suggest that Steiner children's superior representational drawing ability is developing in an educational context that

underplays this form of communication, and where direct teaching on it is delayed until pupils are around 12 years of age.

The objectives of this thesis focused on identifying similarities and differences in drawing ability, styles, attitudes and practices between National Curriculum and Steiner pupils. Although previous research (Cox & Rowlands, 2000; Rose, Jolley & Charmin, 2012) has emphasised the differences in the curricula and outcomes for drawing, the research presented in this thesis suggests that there are actually more similarities than initially anticipated. The initial focus on differences could echo a tendency when investigating drawing development across cultures to focus on dissimilarities and overlook potential commonalities. For example, initial accounts suggested that the approach to teaching drawing skills was quite different in Chinese compared to Western Mainstream schools (Winner, 1989). However, later research involving classroom observations found that the methods of teaching and activities undertaken in art lessons were not so dissimilar (Cox, Perara & Xu, 1998; 1999). Consequently, although the approaches to teaching drawing in National Curriculum and Steiner schools have been portrayed as divergent the reality could be that there are actually more commonalities than initially thought.

6.2 Contribution to Knowledge

An ongoing debate in developmental psychology is the extent to which development is a result of nature compared to nurture. Relating this debate to drawing it has been argued that environment has little impact on drawing development and the universal forms present in children's early mark making have been emphasised (e.g. Kindler, 1970; Luquet, 1929). Evidence presented within this thesis does not consistently support these early accounts of the universality of children's drawing development as both differences and similarities were identified in the abilities of children attending the two different school types. It could be argued that the findings

support a Piagetian view, as it appears that children may learn effectively through their own experimentation. For example, it could be that the superiority of Steiner pupil's representational drawing ability is a result of the freedom that these young children experience. This freedom may give them the opportunity to experiment and to develop their own solutions to creating life-like representations without restrictions or directions about what, or how they should draw. However, the influence of others also appears to play a role in children's drawing development. For example the stylistic differences in the free drawing appeared to reflect particular messages (e.g. to fill the whole page) given by the adults directly involved with children's drawing experiences. Consequently, it seems that the data presented within this these supports the more recent accounts of drawing development which recognise multiple influences, including social-interactions and culture (e.g. Braswell, 2006; Kindler & Darras, 1998). Accordingly, it could be argued that the similarities in expressive drawing ability might be a result of the pupils' wider shared culture, in which they experience a similar repertoire of graphical symbols and formal properties being used both literally and metaphorically to express emotion. The stylistic differences identified in the free drawings may be a reflection of the different art values of the parents and the teachers associated with the two school types. For instance, parents and teachers associated with Steiner schools tended to make more comments related to colour use and Steiner pupils tended to use more colours in their free drawings. As suggested above, and consistent with Piaget's constructionist approach, environmental differences may account for the superior drawing ability of Steiner school pupils. These differences will now be considered in more detail.

According to the Steiner Curriculum, and also the reports of teachers, parents and the children themselves, Steiner pupils up to the age of 12 receive little training in representational drawing skills and experience less intervention from adults while

drawing. Therefore, it appears that young Steiner pupils actually receive less help to develop their representational drawing skills than their National Curriculum counterparts. However, the Steiner curriculum suggests that they do spend a considerable amount of time engaged in drawing and other art activities (Carlgren, 2008). This may be advantageous to the development of drawing abilities. In particular, the later onset of writing and reading in Steiner schools may allow young children more time to engage in, and practice, their drawing skills. Golomb (1992) argued that children are motivated to create visual likeness of real objects and that this inspires them to seek resources and solutions to improve their drawings.

Subsequently, the time available for Steiner pupils to practice and develop their drawing skills may enable them, through their own desire to create visual likenesses, to improve their representational drawing skills. Increasing time for drawing at the cost of time spent learning to read and write could be worrying for National Curriculum schools and teachers where considerable emphasis is placed on progress in literacy. However, research evidence suggests that the later teaching of reading and writing does not create a later deficit in these skills (Suggate, 2009; Suggate, Schaughency & Reese, 2013). Furthermore, the view that children in England who start formal school at age 4 are missing out on important opportunities for play and developing through their own experiences is being advocated (Alexander, 2010; Too Much too Soon Campaign, 2014). Evidence presented within this thesis makes a small contribution to this argument as it appears that the early teaching of drawing skills does not actually improve children's drawing abilities.

In addition to the opportunities for drawing in the Steiner classroom alternative explanations for the superior representational drawing ability of Steiner pupils also need to be considered. In particular, there are other aspects of the curriculum which could be fostering representational drawing skill, such as form drawing. As outlined in

Chapter 1 of this thesis form drawing lessons, usually taught to pupils between the ages of 6 and 9 years, involves pupils copying forms drawn by the teacher on the chalk board. For example, pupils copy straight and curved lines, sharp and obtuse angles, circles, triangles, squares, stars and ellipses (Jünemann & Weitman, 1976). This is not dissimilar to techniques used in China which involve young children copying line drawings created by their teachers (Jolley & Zhang, 2010; Winner, 1989).

Furthermore, this use of copying to create a repertoire of lines has been hypothesised to account for the superior representational drawing ability of Chinese children compared to their Western counterparts (Cox, 2005; Winner 1989). Consequently, research considering the effect of teaching form drawing to groups of National Curriculum School pupils on their representational drawing ability could provide insight into a possible teaching technique to enhance these skills. Such an evaluation study would need careful design. In particular a control group receiving additional National Curriculum style art tuition would be required to insure that it was not simply the receiving of extra drawing tuition and practice that might be bringing about any improvement in representational drawing ability. Furthermore, careful consideration would be required regarding the delivery of the form drawing lessons. If a Steiner teacher familiar with teaching form drawing delivered the lesson this could introduce an additional confounding variable as there might be supplementary influence from their teaching style and own artistic values and experiences.

The artistic values and confidence of teachers themselves could be influential to the development of representational drawing ability. This artistry of teachers was emphasised as a distinctive feature of Steiner schools in the large scale survey carried out by Woods et al. (2005). In contrast, reports (Ofsted 2009; 2012) into the delivery of the National Curriculum for Art and Design suggest that the artistry of these teachers varies considerable. Consequently investigating the artistry of the teacher, for

example their art confidence, art ability, training received relevant to teaching art and their own art habits and practices, could provide valuable insight into how influential these factors might be to the drawing abilities of the pupils that they teach. The artistry of general class teachers who deliver the National Curriculum for Art and Design to pupils attending mainstream schools will vary depending on the training, experiences and art attitudes and practices of individual teachers. While there will also be some differences among Steiner school teachers in these variables, overall it is likely that they are a more homogenous group as art training and practice is central in their training and the artistry of the teacher a distinctive element of the pedagogy. Consequently, the superior representational drawing ability of Steiner school pupils could be partially accounted for by the consistently high levels of artistry and art confidence among their teachers. To evaluate the effect of the teachers own artistry on the abilities of their pupils research could investigate drawing abilities among pupils taught by National Curriculum school teachers to identify if an association exists between teacher variables and pupils' artistic ability.

The variability of the quality of art teaching in National Curriculum schools was also commented on by recent Ofsted reports (2009; 2012). This could be an unaccounted for variable which may have biased the drawing abilities and the attitudes and practices presented within this thesis. It has already been hypothesised that some of the similarities evident among the data collected from those associated with National Curriculum and those associated with Steiner schools may be a result of the National Curriculum schools which volunteered to participate being those that are more supportive of the arts. It is possible that a more representative sample of National Curriculum schools might have resulted in significant differences in expressive drawing ability, even greater differences in representational drawing ability and more contrasting attitudes and practices among children from the two school types.

Consequently future research which contrasts different educational approaches would benefit from considering in more detail the extent to which the participating schools are representative of the range of attitudes and practices. Furthermore, research considering the variable quality of art teaching and contrasting approaches to teaching drawing could provide further insight into teaching approaches (both at a teacher and a curriculum level) which could enhance children's drawing abilities and experiences. This in turn could be used to develop guidance on effective strategies for teaching and supporting children's drawing development.

Guidance on how best to teach children to develop their drawing skills, creativity and appreciation of art might be particularly welcomed by some National Curriculum school teachers who have expressed their uncertainty about how to effectively facilitate the development of these skills (e.g. Anning, 2002; Burkitt, Jolley & Rose, 2010; Clement, 1994; Jolley, Fenn & Jones, 2004; Ofsted, 2009). It was anticipated that this thesis might provide some insight into successful teaching strategies. However, as already highlighted above, although the Steiner pupils had superior representational drawing ability it cannot, from the evidence presented, be concluded that this was the direct result of a particular teaching practice evident within Steiner schools. However, the survey data does provide some insights into strategies which might be relevant to creating a more child-centred approach to teaching drawing. In particular, children seem to particularly value graphical demonstrations with some even asking for pictures to copy to help them to improve their own drawing ability. While providing pictures to copy is not a popular, or recommended, teaching aid in Western education (for instance, see Lowenfeld, 1954) it is a practice advocated in other cultures (e.g. China & Japan) and engaged in by children in their own free time (Burkitt, Jolley & Rose, 2010). Providing children with a range of graphical models, including completed pictures and demonstrations, could help enhance their

drawing skills. In particular, graphical models might help children to develop their technical drawing ability as part of the problem solving process of translating a 3-dimensional object to a 2-dimensional representation has already been completed. Consequently, while graphical models may not enhance creativity they may support technique development.

Further suggestions of how drawing could be taught in a more child-centred way were also evident when comments about preventing an age-related decline in the amount of time spent drawing were considered. These comments emphasised the importance of novel, fun and inspiring drawing activities. Consequently, attention could be given to developing such tasks. Furthermore, the development of fun and novel tasks which appeal to older pupils may be particularly pertinent as evidence suggests that these individuals may require fresh inspiration to encourage them to choose to continue drawing as an activity as it competes with an increasing choice of pastimes on offer to them. This importance of inspiring pupils was also recognised in a recent Ofsted Report (Ofsted, 2012) into the delivery of the Art and Design Curriculum which suggested that the repertoire of teaching approaches should be widened. Furthermore it was recommended that ‘adventurous drawing’ (Ofsted, 2012, p4) should be taught. This suggests that the role of an art teacher is a highly skilled one requiring not only the confidence and artistry to demonstrate but also the creativity and imagination to inspire and support pupils as individuals. This suggests that school teachers, and the pupils that they teach, would benefit from teachers receiving specific training in how to best support the development of children’s artistic skills and creativity. This was also suggested by Hallam, Lee and Das Gupta (2011). Furthermore, Hallam et al. reported that after taking part in a half-day art course, led by a professional artist and involving the teachers sharing good practice and creating their own artworks, primary school teachers felt more confident in their ability to

effectively support their pupils. Consequently, it seems that training which brings those who teach the arts to young children together and involves teachers creating their own artworks is beneficial.

There is a paucity of rigorous research on the impact of Steiner education on learning and achievement (Walsh & Petty, 2007; Woods, Ashley & Woods, 2005). Consequently, this thesis contributes to our understanding of an under researched approach to education. It has extended our knowledge and understanding of a specific, but much commented on, area of the Steiner curriculum. Indeed, Woods et al. (2005) recommended that the potential of the Steiner approach to art and creativity to inform practice in National Curriculum schools should be explored. Furthermore, this thesis provides context by including comparison groups of pupils attending schools teaching the National Curriculum.

6.3 Evaluation of Evidence

Fewer differences in children's drawing ability or attitudes towards drawing have been identified than expected. However, the limitations of the studies presented in this thesis must be recognised. It has already been emphasised that although the reports of teachers, parents and the children themselves regarding the help that children experience with drawing have been considered, classroom observations have not occurred. Consequently, it is possible that what is occurring within classrooms may differ, as what people say they do is not always what they actually do (Robson, 2011). Therefore, it could be that children in Steiner school might actually experience more support with representational drawing skills than reported. However, the strength of the evidence presented within this thesis is that the reports of pupils, teachers and parents were gathered. Consequently, it was possible to compare the reports of help offered from parents and teachers with the experiences that the children reported. This provided a relatively convincing picture as broadly speaking the reports support one

another, suggesting that Steiner pupils do receive less direct intervention and instruction than their National Curriculum counterparts.

The evidence presented in this thesis has focused on drawing development. It must be recognised that although drawing is involved in many artistic process it is not the only medium in which children develop representational and expressive skills. Consequently, it is possible that if these abilities had been investigated in a different medium, for example, painting or sculpture, different conclusions may have been reached. There are some unique differences in the curricula in the two schools that could influence the development of other artistic abilities, for example an emphasis on painting with water colours in Steiner schools. However, the unique differences in how drawing is taught, for example, an emphasis on using block crayons, did not appear to influence drawing ability. Furthermore, the pupils will be experiencing similar cultural influences on their artistic development. Consequently, it seems unlikely that overriding differences above and beyond those identified in the current research would be identified if a different medium were to be investigated.

This thesis has only considered the development of drawing ability, attitudes and practices of pupils still attending their respective school types. It is possible that the emphasis on drawing and creativity within the Steiner curriculum may become increasingly evident as Steiner pupils progress into adulthood. However, long-term influences of Steiner education on artistic ability, or even more generally on creativity, have not been investigated in this thesis. Consideration of other evidence also provides little insight into any long-term effects. There have been three comprehensive survey studies sampling the Alumni of American (Mitchell & Gerwin, 2007), German and Swiss (Barz & Randoll, 2007) and Swedish Steiner schools (Dahlin, 2007). Although these provide a detailed overview of Steiner graduates attitudes and achievements in many areas (e.g. higher education, employment, personal relationships, health etc.)

they provides little evidence of how these compare with those of the general population. Furthermore, as many Steiner schools are not proactive in keeping up-to-date contact details for their alumni (Mitchell & Gerwin, 2007) the samples are self-selecting and are likely to be non-representative as respondents will typically be those who have kept the school updated with their contact details or have maintained a connection with the school – for example through choosing to send their own children there. Consequently, although all three of these studies provide rich data they provide little insight into how the drawing abilities attitudes or practices may develop among Steiner alumni. This is an area that requires further investigation, although to achieve this the problem of contacting a representative sample of Steiner alumni would need to be overcome.

In common with many studies of the effectiveness of different education systems a weakness of the current study was its quasi design. Pupils could not be randomly assigned to the two school types and consequently we cannot be sure that there were not pre-existing differences between the pupils. However, unlike most other studies in this area the evidence presented within this thesis does attempt to investigate the influence of home environment, in addition to school environment, as the attitudes and practices of parents were presented. Consequently, although there might be underlying differences in the pupils (for example the increased value placed on drawing by the parents of Steiner school pupils) these have been acknowledged within this thesis and their impact on any between-school difference in the attitudes, practices and abilities of the children considered. Nevertheless a further consideration is that any links between the evidence found in the two studies (drawing abilities and attitudes and practices) can only be tentative in nature as the two studies did not sample the same participants. Consequently, although it appears that Steiner pupils have superior representational drawing abilities and also receive less frequent and less

direct intervention from adults while drawing any assumptions about an association between these findings must be speculative as the children who participated in the two studies were not the same individuals.

The importance of replication studies has recently been highlighted by leading psychologists (e.g. Asendorpt et al 2013; Brandt et al., 2014; Nosek & Lakens, 2013; Schmidt, 2009). Furthermore, leading journals have become increasingly willing to publish both failed and successful replication attempts (e.g. Journal of Experimental Social Psychology, Psychological Science). Consequently, it is suggested that further research considering the drawing abilities, styles, attitudes and practices of Steiner and National Curriculum pupils would not be futile. Confirmation and disconfirmation of results is necessary for the robust development of theories and interventions. Therefore the increased acceptability, and indeed credibility, of well carried out replication studies is an important development within psychology. The study on drawing abilities reported in this thesis was a ‘replication - extension’ study (Bonnet, 2012). The tasks for expressive and representational drawing ability were the same as those used by Rose, Jolley and Charmin (2012), furthermore the recruitment of participants, instructions and materials given to participants were the same. However, the study was extended to include older age groups of children, a free drawing task added and methodology improved to include geo-demographical matching of participating schools and verbal ability of participants. As the results from the current study did not fully support those of the original study (Rose et al. 2012) further studies providing confirmation or disconfirmation of between-school differences in drawing ability would be necessary for the robust development of theories and interventions.

6.4 Conclusion

Creativity, imagination and expression lies at the heart of the Steiner education, and accordingly the arts play a pivotal role in Steiner pupils’ education. In

contrast, the arts in National Curriculum schools typically take a back seat while subjects considered more academic are focused on. This thesis investigated whether these approaches to teaching art, particularly in relation to drawing, revealed the expected school differences in both the drawing attitudes and practices of children, their teachers and parents, and in the children's drawings. Steiner pupils produced drawings of greater representational skill. Although no consistent between-school differences were identified in expressive drawing skills stylistic differences were identified in the children's free drawings. Steiner pupils used more colours, filled more of the page and were more likely to produce scene based drawings based on ideas from their imagination. According to the responses of parents and teachers, Steiner children experienced a non-interventionist approach in their drawing education both at school and in the home compared to the National Curriculum pupils. Nevertheless, responses also revealed that Steiner children's drawing education was embedded in an educational context in which art was valued more highly and more benefits of drawing were reported.

Despite the differences outlined above there were more commonalities in the drawings and attitudes/practices between the two school types than expected. A number of explanations could account for this. First, children's similar experiences of the wider art culture may act as a counteracting influence on any differences experienced in school settings. Second, the school and home drawing experiences of National Curriculum and Steiner pupils could be more similar than expected. Third, children's drawing development and their attitudes and practices to drawing may be less influenced by their educational experiences and the attitudes and practices of those directly involved with their drawing experiences than anticipated.

The studies presented in this thesis represent ground breaking research comparing drawing ability, and the art attitudes and practices that shape children's

artistic experience in their respective Steiner and National Curriculum schools as well as their homes. Consequently, replication studies are needed to verify the findings. These need to be supplemented by observational data of classroom art lessons and home drawing experiences. Additionally it is recommended that future research examines the influence of the artistry of teachers and specific art related practices (e.g. form drawing) on children's drawing development and drawing attitudes and practices.

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Appendix 1: Guidelines for Raters

A number of children (aged between 6 and 16years) from different schools were asked to make six drawings:

1. A happy picture
2. A sad picture
3. An angry picture
4. An observational drawing of a wooden mannequin
5. A realistic drawing of a house
6. A free drawing

The age of the participant who made the drawing is not stated on the drawing, and you should not take into account the expected ability for a particular age group.

The drawings are presented to you in 6 sets of 180, each set represents one of the drawing types (happy, sad, angry, mannequin, house and free)

Each drawing is numbered 1-180 followed by a letter to indicate which set the drawing belongs too. H stands for Happy, S for Sad, A for angry, M for Mannequin, Ho for House and F for Free.

In cases where the orientation of the drawing is ambiguous the number will be preceded with an arrow indicating the top of the drawing.

Some drawing may have numbers and additional writing on the back – please ignore this.

Instructions, along with worked examples, on how to rate each set of drawings are provided.

Mannequin Drawing

Rating guidelines developed from those given by Cox et al 1998.

Please rate each drawing, on a 1 to 7 scale, for how representational the depiction is of the wooden, artist's mannequin, set up in a running position.

- 1 = very poor representation
- 2 = a poor representation
- 3 = a below average representation
- 4 = an average representation
- 5 = an above average representation
- 6 = a good representation
- 7 = a very good representation

You should use the whole range of scores. Please look at the photograph over the page which shows what the children saw and consider the following elements.

Content of the drawing depicted – consider what the child has drawn, are all the limbs, depicted. If any element is missing, either because the child may have run out of time or simply failed to include it the drawing should be rated lower to reflect its incompleteness.

Zones or Lines – a drawing in which the limbs are depicted as single lines should be rated lower than those where they are depicted as zones.

Direction – the man was set up running towards the right, the more accurately this is depicted the higher the drawing should be rated. A good representational drawing will clearly show the man, in profile, facing towards the right with his arms, legs and torso pointing that way. A less representationally advanced drawing may show the man depicted as if he was facing the drawer. Other drawings may combine the two. For instance the head might be face-on but the limbs and torso may be pointing to the right.

Overlap – The man's legs overlapped one another and the right arm overlapped the torso, the more accurately this is depicted the higher the drawing should be rated. A good representational drawing will show the two legs and the arm and torso occluding each other. A drawing should be less highly rated if these elements are drawn simply one on top of the other, e.g. if the outline of the body continues over the right arm. For examples of occlusion and transparency see over the page. If the drawing does not show the legs crossing over another or the arm crossing the torso they should be rated low as representation does not accurately reflect what the child was shown.

Proportion - Consider how in proportion the limbs, head and torso are in comparison to the photograph of the model show over the page. A drawing which shows better proportion, in comparison to the model, should be rated more highly than one which is out of proportion.

Detail – Facial features were drawn on to a piece of paper and stuck to the man’s face. Drawings which show these facial features, depicted in profile should be rated more highly than those which show them in from a front view or those which do not show them at all.

Running – The model clearly shows a man running, drawings which accurately represent a sense of movement should be rated more highly than those which do not. Drawings which clearly depict a man who is running, should be rated more highly than one in which it looks as if the man is walking, these in turn should be rated more highly than drawings where the man appears to be standing. In making this decision the positioning of the legs and arms should be considered. In particular if the right leg is raised, or if it is clear that it is non-weight bearing, this is likely to depict a running man. If movement is represented but the right leg appears to be weight bearing then this is less representational. The drawings in which the man is clearly standing should be rated the lowest.

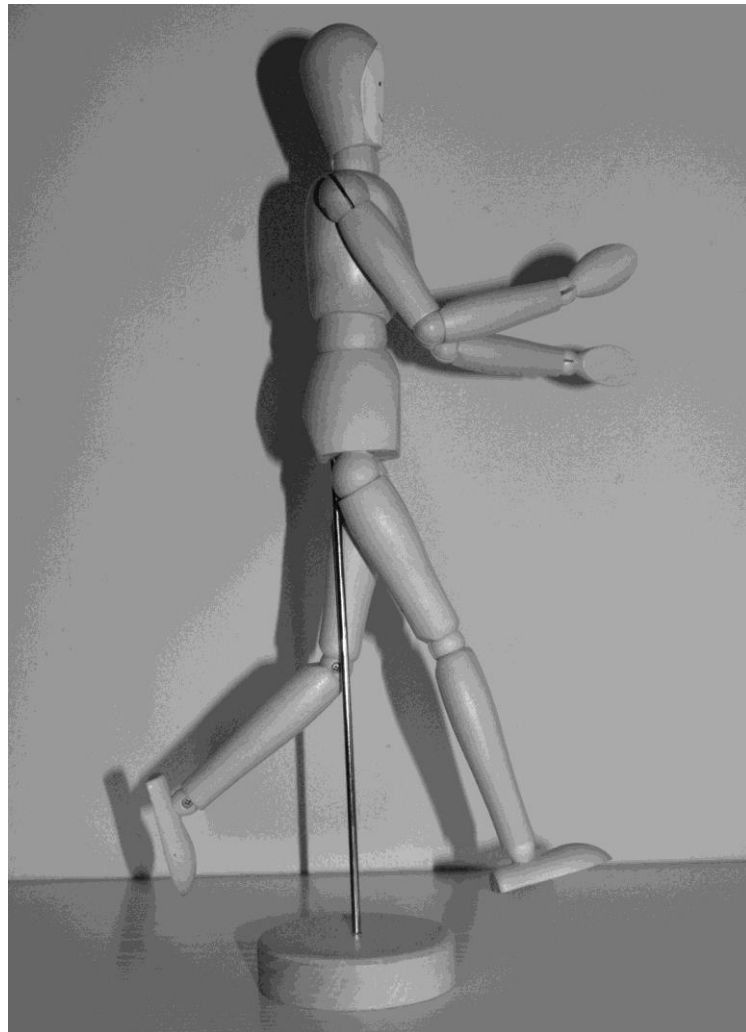


Figure 1: Photograph of mannequin set up in running position as seen by the children.

House Drawings

Children were asked to draw a real and life like house from memory. Please rate each drawing, on a 1 to 7 scale, for how realistic the drawing of a house is. You should use the whole range of scores.

- 1 = very poor realism
- 2 = poor realism
- 3 = below average realism
- 4 = average realism
- 5 = above average realism
- 6 = good realism
- 7 = very good realism

In particular attention should be paid to the following elements

Outline of the house – the more realistic this is of a traditional house the higher the drawing should be rated. The lines making up the outline should be straight and the house should be architecturally possible.

Roof – for a drawing to receive a higher rating the roof should be of a traditional shape (triangular, trapezoid or flat) and be suitable for the type of house drawn.

Door – The presence of a door, and additional detail such as a door handle, letter box or number will be found on the more realistic drawings. The proportion and alignment of the door should also be considered, with well-proportioned doors with traditional alignment being more indicative of a higher rating.

Windows - A drawing receiving a higher rating will have a number of windows, which are drawn in realistic proportion to each other and the overall house. The alignment and position of the windows should also be realistic, i.e. none of the sides of the windows makes up part of the side of the house.

Perspective – highly rated drawings will show the house drawn as a parallelogram or in 3D, showing the front and side of the house. Credit should also be giving when an attempt is made to depict the house in this way. Drawings making no attempt to show perspective in any way should be less highly rated.

Detail – a more highly detailed drawing will be more highly rated than one lacking detail. Detail might include, a chimney, curtains at the window, indication of bricks or tiles, television aerial etc...

Surroundings – drawings which place the house in realistic context should be more highly rated. For example a house with a garage attached, a garden surrounding it and a path leading to the front door will be rated more highly than a house drawn without any indication of its surroundings.

Free Drawing

Colour

All children were provided with a HB pencil and seven coloured pencils (red, green, blue, yellow, pink, brown and black). Using the chart provided please indicate which colours the child used in the drawing. In cases where a child has clearly combined two colours with the aim of creating a secondary or tertiary colour please indicate this in the final column. It is not necessary to record the number of times that a child has attempted to combine colours, or the colours that they have created.

Overall Quality

Rate each drawing on a 1 to 7 scale for how 'good' you think it is. In making your ratings consider the overall artistic merit of the drawing. You should use the whole range of scores.

- 1 = very poor drawing
- 2 = a poor drawing,
- 3 = a below average drawing,
- 4 = an average drawing,
- 5 = an above average drawing,
- 6 = a good drawing,
- 7 = a very good drawings.

A score of 7 should be given to those drawings which you feel show the greatest artistic merit and a score of one to those which you feel show the least. The best way to achieve an effective use of the full range of scores is to sort the drawings into seven piles, with each pile representing a score.

You can then move drawings to different piles as you get a better feel for the general standard of the drawings.

Expressive Drawings

Instructions given to the children

I would like you to draw me a happy/sad/angry picture. It can be of anything that you want as long as it looks happy/sad/angry. It does not matter what the picture is of, but you must make it look as happy/sad/angry as you can. Use the sheet of paper in front of you and any of the pencils that you want. You have up to ten minutes to do the drawing and I want it to be all your own work so please don't copy anyone else's picture. Does anyone have any questions?

[The experimenter then answered any questions that the children had, but did not tell them what or how to draw]

Okay, I would like you to know draw me the happiest/saddest/angriest picture that you can.

The instructions were repeated, with the emotion replaced, until the children had completed all three expressive drawings.

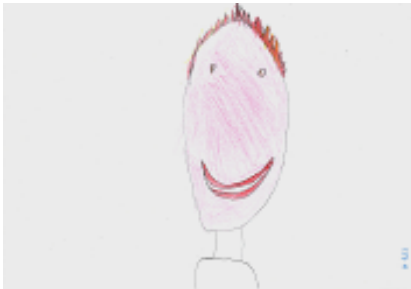








Rating these drawings

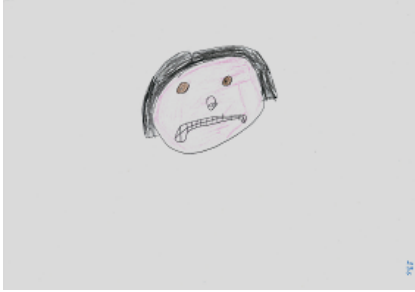

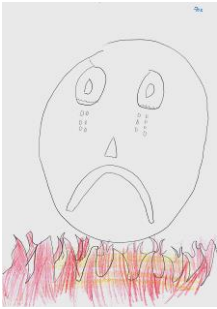






These drawings are to be rated on the following five scales:








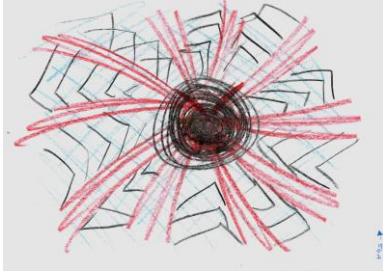

- Formal properties: Line
 Colour
 Composition
- Overall quality

Each scale will require you to rate the drawings on a 7-point scale. The additional guidelines for each measure describe and provide examples of each point on each scale. Please refer to these closely as you rate the drawings. You may find it helpful to sort the drawings into seven piles, each pile representing a point on the scale.



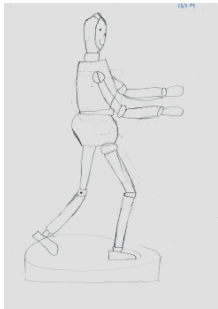

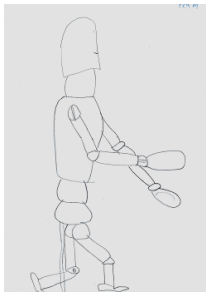

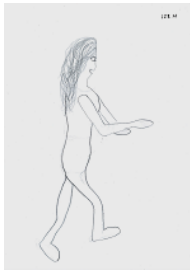

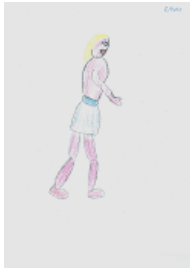
Appendix 2: Example Happy, Angry and Sad Drawings

	National Curriculum Happy	Steiner Happy
Age 7	 <p style="text-align: center;">Quality score: 4. female. 7 years. 5m</p>	 <p style="text-align: center;">Quality score: 3.5. male. 6 years 11 m</p>
Age 10	 <p style="text-align: center;">Quality score: 4.5. female. 9 years 6m</p>	 <p style="text-align: center;">Quality score: 3.5. female. 9 years 6m</p>
Age 14	 <p style="text-align: center;">Quality score: 4.5, male, 14 years 5m</p>	 <p style="text-align: center;">Quality score: 5, female, 13 years 10m</p>
Age 16 studying art	 <p style="text-align: center;">Quality score: 4.5. male. 16 years 4m</p>	 <p style="text-align: center;">Quality score: 4.5. male. 16 years 0m</p>
Age 16 not studying art	 <p style="text-align: center;">Quality score: 4.5. female. 16 years 6m</p>	

	National Curriculum Sad	Steiner Sad
Age 7	 <p>Quality score: 3. female. 7years 4m</p>	 <p>Quality score: 3.5, female, 7 years 6m</p>
Age 10	 <p>Quality score: 3.5, male, 9 years, 9m</p>	 <p>Quality score: 4. male. 10 years 0m</p>
Age 14	 <p>Quality score: 3.5, female, 14 years 5m</p>	 <p>Quality score: 4. male. 14 years 3m</p>
Age 16 studying art	 <p>Quality score: 5, male 16 years 0m</p>	 <p>Quality score: 4.5, female, 15 years 7m</p>
Age 16 not studying art	 <p>Quality score: 4. male. 15 years. 7m</p>	

	National Curriculum Angry	Steiner Angry
Age 7	 <p>Quality score: 3, male, 7years 3m</p>	 <p>Quality score: 3, male, 7 years 6m</p>
Age 10	 <p>Quality score: 4, female, 9 years 7m</p>	 <p>Quality score: 4, male, 9 years 9m</p>
Age 14	 <p>Quality score: 4, female, 14 years 0m</p>	 <p>Quality score: 4.5, female, 13 years 8m</p>
Age 16 studying art	 <p>Quality score: 5, female 15 years 9m</p>	 <p>Quality score: 5, male 16 years 0m</p>
Age 16 not studying art	 <p>Quality score: 4.5, male, 15 years 8m</p>	


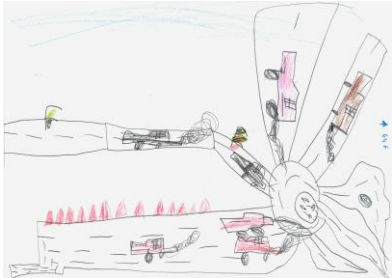


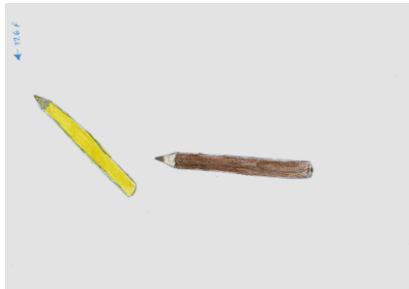




Appendix 3: Example Mannequin Drawings

	National Curriculum	Steiner
Age 7	 <p>Score: 1.5. male. 7years 6m</p>	 <p>Score: 2. female. 7 years 5m</p>
Age 10	 <p>Score: 2.5. male 10 years 0m</p>	 <p>Score: 4. female. 10years 3m</p>
Age 14	 <p>Score: 4, female, 14 years 6m</p>	 <p>Score: 5, female, 13 years 6m</p>
Age 16 studying art	 <p>Score: 4. female. 15 years 11m</p>	 <p>Score: 5.5. male. 16years 0m</p>
Age 16 not studying art	 <p>Score: 4.5. female. 16years 1m</p>	

Appendix 4: Example House Drawings

	National Curriculum	Steiner
Age 7		
	Score: 2.5, male, 7 years 1m	Score: 2.5. female. 7 years. 2m
Age 10		
	Score: 3.5, male, 9 years 11m	Score: 3.5, male, 10 years 1m
Age 14		
	Score: 4, male, 14years 3m	Score: 5, male, 13 years, 11 months
Age 16 studying art		
	Score: 4. female. 15 years. 11 m	Score: 5. female. 15 years 7 m
Age 16 not studying art		
	Score: 4. male. 16years 4m	

Appendix 4: Example Free Drawings

	National Curriculum	Steiner
Age 7	 <p style="text-align: center;">Ability score: 2.5. male, 7years 0m</p>	 <p style="text-align: center;">Ability score: 3.5 female, 10years 7m</p>
Age 10	 <p style="text-align: center;">Ability score: 3. female, 10 years. 3m</p>	 <p style="text-align: center;">Ability score: 3.5, female, 10 years 8m</p>
Age 14	 <p style="text-align: center;">Ability score: 3.5 male, 14years 1m</p>	 <p style="text-align: center;">Ability score: 4, male, 14 years 3m</p>
Age 16 studying art	 <p style="text-align: center;">Ability score: 4. female. 15 years 10m</p>	 <p style="text-align: center;">Ability score: 4, female, 15 years 9m</p>
Age 16 not studying art	 <p style="text-align: center;">Ability score: 4, female, 15years 2m</p>	

Appendix 5: Interview Schedules

Children's Survey

Instructions

I am very interested in children's drawing and if you are happy to help me I will be asking you some questions about your drawings, your feelings about drawing and what help you have with drawing.

When you answer the questions I would really like you to be as truthful as possible as there are no right or wrong answers.

Background Information

Researcher to complete

- Participant number:
- Gender
- Age (*years, months*) or DOB
- Name of School
- National Curriculum Steiner

1. Drawing Behaviour

I am first going to ask you some questions about how much you draw and what you like to draw.

This section of the survey is not used with 6- and 7-year-old children

First of all I am going to ask you about the amount of time that you spend drawing in school. I would like you to think about the amount of time that you spend drawing in art lessons, though of course you do lots of things as well as drawing in your art lesson. I also would like you to think about the amount of time that you spend drawing in other lessons.

a) If you added up all the time that you spend at school drawing in a week how much would that usually be?

Please state in Hours and Minutes

Now I would like you to think about how much you usually draw at home. This will include the times that you spend drawing when you get home from school and the time that you spend drawing at the weekend.

d) If you added up all the time that you spend at home drawing in a week how much would that usually be?

Please state in Hours and Minutes

Just thinking about the amount of time that you spend at home drawing

e) Do you draw more, less or about the same as you used to?

A Lot
Less

A little
Less

About
the Same

A Little
More

A Lot
More

f) What makes you think, 'I'd like to draw now!'

Do you sometimes draw because someone has suggested it to you?

Who?

Why?

g) What do you like to draw (*subject matter*)?

2. Attitudes to Drawing

I am now going to ask you about your feelings about drawing pictures.

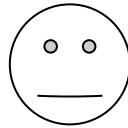
How much do you like drawing?



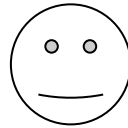
Not at
All
Lot



Not Very
Much



Neither Dislike
it or Like it



A



Little
A

Do you like drawing more, less or about the same as you used to?

A Lot
Less

A little
Less

About
the Same More

A Little
More

A Lot

a) Why do you like drawing?

b) Is there anything that you don't like or find difficult about drawing?

Now I'd like you to think how you feel about your drawing ability.

How good do you think you are?

Very
Bad

Quite
Bad

Okay

Quite
Good

Very
Good

c. *Other children?*

b) Has anyone else helped you with your drawing?

What help have they given you?

c) What extra help would you like with your drawings (*now or in the past*)?

5. Decline of Drawing

This is the last lot of questions. I am going to ask you about whether you think you will still want to draw when you grow up.

a)

A Lot	A little	About	A Little	A
Lot				
Less	Less	the Same	More	More

Why? (sometimes children answer this in their answer to the previous part of this question and the prompt is not always used)

b) What good things come from making a drawing?

What do you get from drawing?

What are the benefits of drawing?

c) Many children draw less or even stop drawing altogether when they get older. Why do you think this is?

e) Do you think that it is a good or bad thing that children draw less as they get older?

Very	Quite	Neither bad	Quite	Very
------	-------	-------------	-------	------

Bad

Bad

or Good

Good

Good

Why? (sometimes children answer this in their answer to the previous part of this question and the prompt is not always used)

- e) How do you think children should be encouraged to draw more not less as they get older?

Teacher's Survey

Instructions

When you answer the questions I would really like you to be as truthful as possible as there are no right or wrong answers. The answers will be stored anonymously and no information leading to your identity will be included in any sharing of the results.

Background Information – Researcher to complete

School:

Class taught:

1. The National Curriculum for Art and Design and its Delivery

This set of questions relate to the extent to which art (and more specifically drawing) is taught in school, your opinions of the National Curriculum for Art and Design, and its delivery.

a) What do you think the principal aims of the Curriculum for Art are for art for the age group that you teach?

c) On average how much time do the children that you teach usually spend drawing in school?

d) How important do you see children's art education within the whole of their education

1 2 3 4 5 6 7 8 9 10
No Averagely Extremely
Importance Important

e) What benefits do children get from making drawings?

2. The Influence of Teachers and Cultural Art Values on Children's Drawings

The next series of questions relate to your own art values, how you support children in their drawing and other potential cultural influences on children's drawings.

a) In your opinion what makes a child's drawing good (in respect of the year group you typically teach)?

b) In your opinion what makes a child's drawing bad (in respect of the year group you typically teach)?

c) In what specific ways do you encourage children in your year group to improve their drawing?

- d) Are there any difficulties or barriers that hinder you helping your children to draw?

3. Children's Drawing Experience

This is the last series of questions. The questions relate to children's attitudes towards drawing and how these may change with age.

- a) On average how many of your pupils enjoy doing drawing activities?

Almost All	More than half	Less than half	Very few
---------------	-------------------	-------------------	-------------

- b) What do your pupils like about drawing?

- c) What don't your pupils like about drawing?

- d) How much do you agree with the statement, "The amount of time that children generally choose to draw, outside what they are required to by their schools, declines as they get older".

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
----------------------	----------	-------------------------------	-------	-------------------

If you agree with the above statement to any extent please answer the following questions. If you do not agree the survey is finished!

- e) At what age do you think that the amount of time children typically spend drawing for themselves declines?
- f) Please list reasons why you think that drawing activity may decline as children get older?
- g) Do you think that any decline in children's drawing matters? Please give reasons.
- h) What do you think could be done to help stop this decline?

Thank you very much for taking the time to complete this questionnaire.

The attitudes and practices of teachers, parents and children regarding
children's drawings

Parent's Survey

Background Information:
Your name:
Name of child participating in this study and their age:
Name of child's school:

Instructions

When you answer the questions I would really like you to give as full and as detailed responses as possible. Furthermore, please be as truthful as possible as there are no right or wrong answers and I will be making no judgements about you or your child as individuals. The answers will be stored anonymously and no information leading to your identity will be included in any sharing of the results.

Please Return To:
Sarah Rose
Department of Psychology
FREEPOST ST655
Staffordshire University
College Road
Stoke-on-Trent ST4 2DE

1. Children's Drawing Behaviour and Attitudes at Home

This set of questions asks you about your child's drawing behaviour, their attitudes to drawing in the home and how both of these change with age.

Please respond to the following items either by circling what you feel is the most appropriate answer or by providing a written response.

- a) On average how much time does your child draw at home in a week? *Please state in hours and minutes.*
- b) Does your child draw more, less or about the same as he or she used to?
- | | | | | |
|---------------|------------------|-------------------|------------------|---------------|
| A Lot
Less | A little
Less | About
the Same | A Little
More | A Lot
More |
|---------------|------------------|-------------------|------------------|---------------|
- c) What motivates your child to decide to draw?
- d) Why does your child like drawing?
- e) What doesn't your child like or find difficult about drawing?
- f) How much do you agree with the statement, "The amount of time that children generally choose to draw, outside what they are required to by their schools, declines as they get older".
- | | | | | |
|----------------------|----------|-------------------------------|-------|-------------------|
| Strongly
Disagree | Disagree | Neither Agree
Nor Disagree | Agree | Strongly
Agree |
|----------------------|----------|-------------------------------|-------|-------------------|

1. Children's Drawing Behaviour and Attitudes at Home Continued

If you agree with the previous statement to any extent please answer the following questions. If you do not agree please continue to section 2.

- g) At what age do you think that the amount of time children typically spend drawing for themselves declines?

- h) Please list reasons why you think that drawing activity may decline as children get older?

- i) Do you think that any decline in children's drawing matters? Please give reasons.

- j) What do you think could be done to help stop this decline?

2. The Support you give to your Child's Drawing Experience

The following set of questions asks you about how you support your child's drawing activities.

Please respond to the following items either by circling what you feel is the most appropriate answer or by providing a written response.

- a) How often do you sit and /or talk with your child as he or she draws?

Most
Days

More than
Twice a Week

Once a
Week

Once a
Month

Hardly
ever

2. The Support you give to your Child's Drawing Experience Continued

- b) In what specific ways do you help your child with his or her drawing (e.g. your comments, making your own drawing, altering your child's drawing)?
- c) Do you experience any difficulties or barriers that hinder helping your child to draw? *If yes please specify*
- d) What makes a child's drawing good?
- e) What makes a child's drawing bad?

3. Attitudes to Children's Art, School Art Education and Cultural Art Values

This is the last set of questions. The questions ask you about your opinions of your child's art education

Please respond to the following items either by circling what you feel is the most appropriate answer or by providing a written response.

- a) How important do you see your child's art education within the whole of your child's education?

1	2	3	4	5	6	7	8	9	10
No				Averagely					Extremely
Importance				Important					Important

b) What do you think school art education is for?

c) What benefits do children get from making drawings?

Thank you very much for taking the time to complete this questionnaire

Please return it in the freepost envelope provided

Appendix 6: Theme Descriptors

The descriptors for the children's, parents' and then teachers' responses are presented.

Children's Survey 1f. What makes you think I would like to draw now?		
Title	Description	Examples
Pass the time	When unsure what else to do, or can't engage in different activity	'When I'm not allowed to watch a film' 'When I am bored'
Electronic Images	Being motivated by a digital image or digital technology	'When I see cartoons it makes me what to draw them' 'Ideas from the internet'
Seeing things	Being inspired by something. Some of these comments will relate to specific objects – others will be more generic.	'sometimes if it's something I've read or something I've seen' 'Horses'
Imagination	Motivated by feeling creative, imaginative, having an idea or just getting a feeling that you want to draw.	'I just get a feeling' 'I think if I just feel creative or just fancy to doodle'
Enjoyment	General enjoyment of drawing or a specific part of the drawing process.	'I like drawing' 'I like colouring'
Social Motivation	Drawing for others, seeing others drawing or being required to draw as part of homework	'I like designing cards' 'If I see my brother drawing' 'If its homework'
Good at drawing	Wanting to improve/be an artist or already thinking that you are an accomplished drawer.	'So I can be an artist' 'I am good at art'
Expression of ideas & emotions	Claiming an emotion or feeling prompts drawing while others directly relate to drawing improving comfort/well - being	'Because I am always hypo' 'If I feel sad' 'When I have a headache it can make it better'
Other	Comments which either lack clarity or do not fit into any existing themes	'Extending my art project' 'If I am just inspired by something really.'
Don't know	Uncertainty about exactly what it might be that prompts them to draw.	'I am not really sure' 'Don't know'

Children's Survey 1.fi Does anyone suggest drawing to you?		
Title	Description	Examples
No one	N/A	
Grandparent		
Sibling/cousin		
Mum		
Dad		

Children's Survey 1fb why is drawing suggested by other people?		
Title	Description	Examples
Occupied	To prevent boredom or occupy child	'To have a bit of piece in the kitchen!' 'It stops me wondering around looking for something to do'
Improvement	So that the child gets better at drawing	'she wants me to learn how to draw well'
Drawing has benefits	Either acknowledges a perceived benefit of drawing or expresses the opinion that drawing is a 'better' pass time than another activity, e.g. watching TV.	'he wants me to express myself on paper' 'it keeps me off the play station and away from the T.V.'
Social Motivation	Drawing together, appreciation from others or drawing specifically for others (e.g. making cards)	'She likes the pictures that I draw' 'she wants me to draw something for somebody' 'we want to draw together'
Other	Comments which either lack clarity or do not fit into any existing themes.	
Don't know	Uncertainty about exactly what it might be that prompts others to suggest drawing	Not sure' 'I don't really know'

Children's Survey 1g What children like to draw (subject matter)		
Title	Description	Examples
Leisure	Items, or scenes, associated with leisure activities	'People in the playground' 'Guitars'

		'Pools'
Vehicles	All forms or transport vehicle	'Boats' 'Rockets'
Animals	Wild and domesticated animals (including birds reptiles etc)	'Monkeys' My bird' 'Spiders'
People known	Comments about drawing people or parts of the human figure, e.g. faces, hands etc.	'Myself' 'My family' 'People' 'Faces'
Imagined or fictional characters	Characters from the child's imagination – might be inspired by real people or characters from popular culture	'Queens from like Victorian times' 'Monsters' 'Princesses'
Scenes from popular culture	Either fictional or real characters from popular culture	'Manga' 'Bugs bunny' 'Elvis'
Landscapes or vegetation	Subject matter from the natural world – (NOT animals)	'Flowers' 'Landscapes' 'Beaches'
Anything	Very generic comments suggesting that the child draws a variety of subject matter	'Whatever' 'Everything'
Cards for people	Making cards for others	'Christmas cards'
Buildings	Fictional and real buildings	'Houses' 'Very posh houses, my dream bedroom'
Death & destruction	Scenes or details that suggest death and destruction	'Battles' 'Cuts and Scars'
Copied things	Images that are copied	'Copying stuff'
Household items or toys	Objects from around the home, including toys.	'I like to draw home stuff, like glasses and fireplaces' 'My teddies and my dolls'
Shapes/symbols/patterns	Either comments about specific symbols or more generic comments about doodling and drawing patterns.	'Flags, like Wales and France' 'Patterns – doodling'
Clothes or fashion items	Generic comments about designing clothes, drawing clothes and also more specific clothing/fashion items.	'Design clothes' 'Shoes' 'Jewellery'
Certain part of drawing process	Comments which relate to a specific part of the drawing process or a specific style of drawing.	'Mixing colours' 'Abstract art'
Other	Comments which either lack clarity or do not fit into any existing themes.	
Don't know	Uncertainty.	'Not sure' 'I don't really know'

Children's Survey 2b Why do you like drawing?

Title	Description	Examples
Passing the time	It occupies you, helping to pass the time.	'It keeps you busy' 'When I am bored I can just draw'
Appreciation from self/other	Experience a sense of satisfaction with the drawing when it is finished.	'When you feel proud of what you have done' 'I like the pictures that I draw'
Creates a sense of well being	It creates a sense of well-being. This well-being can take many forms, including happiness, alertness, relaxation	'A way to relax' 'It makes me go all happy'
Improvement and progress	You are able to improve and develop your skills. Enjoyment of practicing drawing and a sense of 'getting better' at drawing.	'I like that my pictures look better than they used to.' 'I want to get better at it'
Freedom	You have the freedom to choose what to draw and you are in control of the process.	'You can draw anything that you want to do' 'We are allowed to do what we want'
Expression	It provides an opportunity to express feelings and emotions, providing an alternative form of communication. Some comments were also made about the cathartic experience of drawing.	'You can express your feelings when you draw' 'It lets off emotions'
Imagination/creativity	It provides an opportunity to use your imagination and to be creative.	'You can use your imagination' 'I like making pictures and making things up to draw'
Drawing for others	You can make pictures to give to others and also to enjoy yourself.	'I like to decorate my room with pictures' 'I make cards for people'
Technical skills	Comments which relate to a specific part of the drawing process, for example colouring.	'Mixing the colours' 'I like colouring it in'
Specific things or in specific styles	Specific subject matter or a specific style of drawing.	'I like drawing maps' 'I like drawing cartoons'
General I like drawing	Generic comments, such as drawing is good, fun, interesting.	'It is fun' 'It is good' 'I like drawing pictures'
Other	Comments which either lack clarity or do not fit into any existing themes.	'It's kind of foreign' 'Well my grandma was an artist'

Don't know	Uncertainty about why they like drawing.	'Not sure' 'I don't really know'
-------------------	--	-------------------------------------

Children's Survey 2c What don't you like, or find difficult, about drawing?		
Title	Description	Examples
No difficulties	No difficulties or dislikes reported.	'It is all good' 'Nothing that I can think of.'
Specific things	Specific subject matter is hard or disliked for another reason	'I don't like drawing scribbles – they make me sad' 'Drawing people is hard'
Materials	Problems with materials, or poor quality materials.	'Colours that go dirty' 'I don't like it if my pencil snaps'
Mistakes	Making mistakes and experiencing frustration with not being able to get it looking right	'When it goes wrong' 'Making it look like the picture that I have in my head'
Lack of drawing self-efficacy	Finding drawing (in general compared to specific techniques or subject matter) difficult.	'It is difficult' 'I am not very good at it'
It taking too long	Drawing taking a long time or requiring considerable patience, effort.	'When it takes ages to do one thing' 'It hurts your hand'
Techniques	Finding a particular part of the drawing process difficult or dislike of a specific part of the drawing process.	'Drawing all the detail is really hard.' 'When I go over the lines'
Lack of freedom	Not having freedom to choose what to draw , how to draw or the amount of time to spend drawing.	'When we have to draw something that we don't want to' 'I don't like it when I don't get to finish my work off.'

Children's Survey 3c 'What do you imagine that most adults think makes a drawing good?'		
Title	Description	Examples
Specific Subject matter	Specific subject matter – for example something that they perceive that the adult likes or has an interest in.	'Renaissance art is popular I think.' 'Pictures of me'
Colour	Comments about colourful pictures or particular preference for a colour.	'Colourful' 'with light and warm colours' 'grandma likes green'
Detailed	The amount of detail included in the drawing. Some children seemed made comments about lots of detail being good while others commented that's simpler drawings without too much detail were good.	'The amount of detail' 'Simple things – not too busy' 'Loads of detail'

Good technical skills	Using appropriate techniques or showing proficiency with particular techniques.	‘Using a good technique’ ‘Accurate’
Neatness	Creating a neat and tidy drawing.	‘When you colour inside the lines’ ‘Drawings that are neat’
Care and effort	Putting care and effort into the drawing. Also includes comments about concentrating on the drawing as we say this to be a reflection of care and effort	‘That you try hard’ ‘If it is drawn carefully’ ‘Spending a long time drawing’
Imagination & Creativity	A drawing which shows imagination and creativity. Comments relating to uniqueness and individuality were also included in this category.	‘More creative pictures’ ‘An individual sort of drawing, they like different things like Picasso’s work’
Representational	A drawing that is a good life-like representation, one that looks realistic.	‘If it looks realistic’ ‘If the picture looks like what you are trying to draw’
Improvement	A drawing which demonstrates improvement in the child’s drawing ability.	‘If you improve on last time’
Materials	Perceived preference for particular materials.	‘If you use pastels- they like those’ ‘When you use different materials, like tissue paper.’
Appreciation by self/others	When I feel satisfied with my drawing and appreciate it. Or when I have made it for them and they appreciate it.	‘When I’ve draw something that I like’ ‘When I make them a card’
Personal Preference	Recognition that whether a drawing is perceived as good or bad may depend on an individual’s preferences and that therefore generalise to all adults is problematic.	‘It depends on the individual’
All good	They say that all drawings are good.	‘They always say that drawings are good’ ‘They like all of them’
Other	Comments which either lack clarity or do not fit into any existing themes.	
Don't know	Uncertainty about what adults think makes a good drawing.	‘I don’t know’

Children’s Survey 3d. ‘What do you imagine that most adults think makes a drawing bad?’		
Title	Description	Examples
Subject Matter	Specific drawing styles or subject matter	‘Abstract art’ ‘Guns and stuff’

		‘Stickmen’
Colour	Comments about colour	‘maybe if it was all dark ‘ ‘Bright colours’
Detail	Comments about too much/too little detail	‘Pictures are too busy’ ‘Lack of detail’
Neatness	Where there is a lack of neatness to the finished product	‘messy’ ‘Rough’ ‘if you colour out of the lines’
Care and effort	Lack of care, concentration, or effort	‘If you haven’t really tried’ ‘If it is just rushed’
Scribbling	Any comments about scribbling or scribbly pictures.	‘Scribbles’ ‘If you do your drawing and then scribble all over it’
Lack of technical skill	A drawing which shows underdeveloped technical drawing skill/s.	‘out of proportion’ ‘not symmetrical’
Lack of realism	A drawing that is not a life-like representation, that lacks representational drawing skills	‘If it doesn’t look like what it should be’ ‘not very accurate’
Personal preference	Recognition that whether a drawing is perceived as good or bad may depend on an individual’s preferences and that therefore generalise to all adults is problematic.	‘If it was something that they didn’t like in particular or didn’t really interest them.’ ‘It depends on the individual’
All good	All drawings are good.	‘Nothing really’ ‘All drawings are good’
Other	Comments which either lack clarity or do not fit into any existing themes.	‘When it looks rubbish’ ‘simple shapes’
Don't know	Uncertainty about what adults think makes a bad drawing.	‘Not sure’

Children’s Survey 4a ‘I want you to think about the help your teachers have given you in your drawings. What sort of help have they given you’		
Title	Description	Examples
No Help	reports that they don’t have help or the feel as though they don’t need it	‘None!’ ‘I don’t really need the teachers help any more’ ‘I don’t need any help’
Being told exactly what to do	Teacher gives the child clear instruction on how to complete their art work. This applies to both the technique the child should use and specific aspects of the drawing such as what colour to use. The child does not have chance to negotiate with the teacher.	‘Teachers tell me what colours to use’ ‘Teacher explain how you can do it’ ‘The tell us to do strong colours and not to miss bits out’

Tips for improvement	Teacher helps the child complete and improve their drawing by giving advice and tips as the child works on their drawing	‘When I put my hand up as ask for help they come over and explain things’ ‘He helps us make it go right’
Encourages concentration	Teachers encourage the child to concentrate on their drawing and work to create a drawing environment free of distractions	‘They tell me to concentrate’ ‘They make sure that other don’t distract you’
Encouragement	Teacher gives child positive feedback on their work to develop the child’s confidence on their own drawing ability and encourages the child to draw	‘they encourage me to draw’ ‘say our drawings are good’
Complete part of drawing	Teacher takes over from the child and completes part or parts of the drawing.	‘Sometimes they do bits for me while I hold the top of the pencil’ ‘They put the tail on the doggy if I get stuck’
Ideas of what to draw	Teacher provides ideas of what to draw	Teachers help me decide what to draw
Demonstrations	Teacher demonstrates on a separate piece of paper/on the blackboard aspects of the drawing that the child was struggling with. Sometimes teachers demonstrate without mark making by drawing outlines with their fingers.	‘Teacher show me how to draw something and then I copy them’ ‘They show us with their fingers the shapes we need to do’ ‘they draw on the blackboard’
Skill development	Teacher focuses on developing skills and techniques that the child needs to have in order to be a successful artist.	‘Teacher shows me different techniques’ ‘They point out the shadow help us to shade and that’ ‘Teachers have told us about warm and cold colours’
Freedom	Freedom that the teacher provides, both in choosing what to draw and how to draw.	‘Difficult to say cos they try not to say anything’ ‘They give me a lot of freedom and that really helps’
Good teacher	Appreciation of the art teacher.	‘James, he’s really good’ ‘Well the art teacher is pretty cool’
Other	Responses that were unintelligible, or not related to drawing. Statements that were too general and non-descript to categorise	‘Sometimes they help me but I’m not sure how’ ‘They help me with gluing’
Don’t know	Unsure how teacher helps	Don’t know

Children's Survey 4a 'I want you to think about the help your parents have given you in your drawings. What sort of help have they given you'		
Title	Description	Examples
No Help	Reports that they don't have help or the feel as though they don't need it.	'None! 'My parents don't have to help me'
Demonstrations	Parent demonstrates on a separate piece of paper aspects of the drawing that the child was struggling with.	'Parents do it in rough to give us an idea of how we can do it' 'They show me stuff and then say have a go at that'
Tips for improvement	Parent helps the child complete and improve their drawing by giving advice and tips as the child works on their drawing. The child can choose to follow these or not.	'If I get it wrong parents help me rub it out and do it again' 'They help me choose which colours to use'
Materials	'Parent provides the necessary art materials for the child to complete the task'	'Parent buys me things to draw with' 'They buy me books'
Encouragement	Parents gives child positive feedback on their work to develop the child's confidence on their own drawing ability and encourages the child to draw	'they encourage me to draw' 'They sit with me on the sofa watch me drawing and praise me' 'They are supportive of my drawing'
Complete part of drawing	Parent takes over from the child and completes part or parts of the drawing.	'does half for me and then I finish it off' 'draw a feint line and I go over it' 'She used to guide my hand when I was young'
Ideas of what to draw	Parent works with the child to develop ideas of what to draw.	'They give me inspiration to draw' 'They give me ideas on what to draw'
Skill development	Parent focuses on developing skills and techniques that the child needs to have in order to be a successful artist.	'They describe drawing techniques' 'They told me how to draw a face in proportion'
Other	Responses that were unintelligible, or not related to drawing. Statements that were too general and non-descript to categorise	'Parents help me a bit but I'm not sure how'
Don't know	Unsure how parent helps	Don't know

Children's Survey 4a 'I want you to think about the help other children, your friends, your classmates have given you in your drawings. What sort of help have they given you'		
Title	Description	Examples
No Help	The child reports that they don't have help or the feel as though they don't need it.	'Other children don't help me' 'They offer to help but I like doing it by myself'
Demonstrations	Child demonstrates on a separate piece of paper aspects of the drawing that the child was struggling with.	'Show me how to draw a thing' 'show me how to draw on the computer'
Tips for improvement	Other children help the child complete and improve their drawing by giving advice and tips as the child works on their drawing. The child can choose to follow these or not.	'When I get stuck friends help me decide what colours to use' 'They say if it needs more detail or colour'
Encouragement	Children gives positive feedback on their work to develop the child's confidence on their own drawing ability and encourages the child to draw.	'If I don't like my picture the other children tell me it's good' 'They tell me I am good at drawing'
Complete part of drawing	Other children take over and complete part or parts of the drawing.	'Sometimes other children draw a little bit for me' 'Sometimes they draw things for me and I colour them in'
Ideas of what to draw	Provides ideas and inspiration of what to draw.	'When we are drawing in class we use each other's ideas' 'Other children show me their work and I get ideas from them'
Shared activity	Children draw together for fun and enjoyment no indication they are working together to improve the way the draw etc	'Other children colour in with me' 'Sometimes we work in partners and take it in turns to draw something'
Other	Responses that were unintelligible, or not related to drawing. Statements that were too general and non-descript to categorise	
Don't know	Unsure how other children help	'Don't know'

Children's Survey 4b 'Has anyone else helped you with your drawing?'		
Title	Description	Examples
No one	NA	
Sibling/cousin		
Grandparents		
Uncle/aunts/family friend		
Adults at school		
Artist		
Other		

Children's Survey 4b 'What help have they given you?'		
Title	Description	Examples
Demonstrations	Shows the child how to do something, which the child may then use as guidance – or to create an exact replica of.	'Shows how to mix colours' 'She draws patterns and I copy them'
Pictures to copy	Provides images for the child to copy – in contrast to 'demonstrations' these images have not been created when the child was present. The child is just being given the finished product to copy.	'gives me things to copy' 'helps me find pictures on the internet that I want to copy'
Tips for improvement	Helping the child complete and improve their drawing by giving advice and tips as the child works on their drawing. The child can choose to follow these or not.	'if I've started drawing something I'll ask him for advice' If I go wrong he says what to do'
Encouragement	Provides positive feedback on their work developing the child's confidence in their own drawing ability and encourages the child to draw.	'They tell me I am good at drawing' 'She encourages' 'she tells me to have a go'
Complete part of drawing	Takes over and complete part or parts of the drawing.	'she draws hard things for me' 'She draws dotted lines and then I draw over them so that I get the shapes right'
Ideas of what to draw	Provides ideas and inspiration of what to draw.	'If I'm stuck for ideas she helps me and give me ideas of what to draw' 'She shows me pictures that give me ideas.'
Materials	Provides art materials for the child to use.	'buy colouring books to keep up my interest' 'They buy me nice pencils'

Shared activity	Spend time drawing when child draws	'sits and draws pictures with me' 'colours in with me'
Other	Responses that were unintelligible, or not related to drawing. Statements that were too general and non-descript to categorise	

Children's Survey 4c What extra help would you like with your drawings (now or in the past)		
Title	Description	Examples
None	Children believe that they do not need any further help. Either do not want more help as they are happy with how they draw or believe that they have enough help already.	'None I am confident in myself' 'I've got enough help already'
Pictures to copy	Child would either to be provided with images or examples to copy. These include pictures out of books as well as demonstrations being drawn for the child to observe the process and copy from.	'I would like to copy off other people more' 'Give me pictures to copy'
Help to draw specific subject matter	Children would like help to draw a particular object or topic.	'Help to draw mice and children' 'Teach me to make hands and faces better'
Better drawing environment	Children feel that they would like a better environment for drawing, with more opportunities to draw and an environment which supports drawing endeavours.	'I would like people to keep quiet for me noise puts me off' 'More opportunities to do artwork at home and school'
Step by step instructions	Child would like someone to explain to them clearly what and how they should do their drawing.	'I'm not good at drawing I would like to learn how to draw step by step' 'I would like someone to tell me how I should do it and tell me what to do'
Ideas of what to draw	The child would like someone to work with them to give them different ideas of what to draw	'People to give me different ideas on what to draw' 'People to give me ideas and not whole drawings to copy I like doing my own thing'
Help with skills	Children would like help to improve on their drawing skills and to develop new techniques.	'Help on how to organise and set out my picture' 'I would like to be shown more techniques'
Someone to complete some of the drawing	The child would like someone to take over their drawing and complete some parts for them.	'Someone to do some bits and then me to do some bits' 'People to draw the outline'

		and then for me to colour it in'
More feedback on drawing	The child would like feedback on their drawings. In particular children expressed their desire for people to give their honest opinions rather than just always telling the child that their work is good.	'If they could say if it doesn't look good instead of just saying its good all the time'
Specialists to help	The child would like help from art specialists or artists	'Someone who is good at art to show me more complicated pictures that I could copy' 'Not just scrappy help but good help'
Other	Responses that were unintelligible or not related to drawing. Statements that were too general and non-descript to categorise	

Children's Survey 5a Children's explanations for why they believe that they will spend less time drawing in adulthood.		
Name	Description	Examples
Too busy - generic	Children believe that they will be too busy – but are not specific about what it is that they will be too busy doing.	'I'll be busy' 'I'll be busy doing other stuff'
Too busy - work	Children believe that they will be too busy due to the time that they will have to spend at work or studying.	'I'll have a job' 'I will be going to college and to university'
Too busy - home	Children believe that they will be too busy due to the pressure of household chores and looking after or spending time with their family.	'I will have more chores to do' 'I'll have lots to do, like the housework and looking after my wife'
Developing other interests	Children believe that they will not have the time as they will have developed other interests and pass times.	'I'll be playing football' 'I might want to do other things'
Dislike drawing	Children do not like drawing – they do not find it an enjoyable activity.	'I won't draw because it is pointless' 'I might not like drawing much'
Normal development	Drawing less as you get older is perceived to be part of normal development – it is just something that happens.	'Because I will just grow out of drawing' 'Adults don't draw much'
Depends on job	Due to their career choice it is likely that they will spend less time drawing.	'I want to do medicine (pathology)' 'It's not going to be in the career I've chosen'

Other	Comments which either lack clarity or do not fit into any existing themes	
Don't know	Uncertain about why.	

Children's Survey 5a Children's explanations for why they believe that they will spend more time drawing in adulthood		
Name	Description	Examples
More time available	Children believe that they will have more time available in which to draw.	'I will have more time to draw again' 'Because if you don't get tired you can draw and draw and draw'
Career requirement	Their chosen carrier will involve drawing.	'I want to be an artist' 'It depend on my job, I might have to do diagrams'
Enjoyment of drawing	They enjoy drawing.	'Because my dad likes drawing so I will too' 'Because I like drawing so much'
Improvement of skills	They will be better at drawing.	'I will know more about drawing' 'Because I will be a better drawer'
Draw with children	They will spend time drawing with their own children.	'To help children draw' 'If I have children they will want me to draw for them'
Other	Comments which either lack clarity or do not fit into any existing themes	
Don't know	Uncertain about why.	

Children's Survey 5b What are the benefits of drawing/ What good things come from drawing?		
Name	Description	Examples
Improved drawing skill	You will improve your drawing skill, improving your ability and expertise at drawing,	'If you practice you get better' 'It is a skill that you will always have'
Imagination & creativity	It provides an opportunity to be creative and to use your imagination.	'You can create things' 'It helps your imagination'
Calming & relaxing	It is an activity which is calming and relaxing – creating a sense of wellbeing.	'Taking you out of yourself' 'It calms you down'
Expression & release of emotion	It can be a way to express yourself and to release your emotions, i.e. the cathartic effect of drawing.	'It enables you to express yourself more' 'I can let my feelings out'
Handwriting & pencil skills	Drawing improves your pencil skills, which can be beneficial	'To help my hand writing' 'Gets you a steadier hand'

	to the development and improvement of handwriting.	
Prevents boredom	It provides an activity which can keep you occupied preventing boredom.	'It is something to do' 'So I don't get bored'
Enjoyable activity	It is a fun and enjoyable activity.	'It is fun' 'It is a hobby'
Aids learning and understanding	It can aid understanding, learning and cognitive skills such as memory. Drawing can help you to learn other subjects and information.	'It helps my memory' 'You can learn a lot from drawing'
Communication Aid	It can be used as an aid to communicate with others	'When you are describing something to a friend and it is hard to explain'
Draw for others	You can take pride in the end product and share it with others	'You get praised for it so that is nice' 'Well you can draw cards for people'
Career	It may help you to get a job involving art, or to become an artist	'You could be an artist' 'You might need to draw in your job'
No Benefits	Child doesn't think that there are any benefits of drawing	'None!'
Other	Comments which either lack clarity or do not fit into any existing themes	
Don't know	Uncertain about what could be done.	'Don't know'

Children's Survey 5c Why do children stop drawing as they get older?		
Name	Description	Examples
Too busy	Child is too busy doing chores, homework and other activities which are not optional as they get older.	'They still like drawing but don't have time' 'Children are too busy'
Developing other interests	Children develop other hobbies and pastimes which they participate in in their free time. This includes both social and non social activities.	'Hang out with friends instead' 'More interested in video games'
Don't like drawing	Children like drawing less as they get older, 'going off it' and preferring other things.	'Might not like drawing' 'It becomes not fun anymore'
Boredom & tiredness	Children believe that as they get older they will not have the patience, they will get bored of drawing and/or will feel tired of it.	'They get bored because it takes a long time' 'Aching arms' 'Maybe they have just had enough of drawing'
Low perceived ability	Children believe that they are	'They think they can't draw'

	not very good at drawing so they give up drawing	properly' 'Because they don't know how to do loads of stuff'
Part of normal development	Children believe that a decline in drawing as a natural part of growing up, a consequence of getting older	'Because they are getting bigger' 'Your imagination fades away'
Peer pressure	Children see peer pressure as being a contributing factor, believing that drawing is not cool and that their friends would not approve of them if they drew.	'Drawing isn't cool' 'You wouldn't be popular if you drew a lot'
Drawing not important	Children do not see drawing as important or believe it is value by others as a pastime.	'Drawing becomes less important drawing is not a necessary skill' 'You only really need to draw at school'
Other	Comments which either lack clarity or do not fit into any existing themes	
Don't know	Uncertain about what could be done.	Don't know

Children's Survey 5c. Children's explanations for why it matters if you no longer draw.		
Name	Description	Examples
Loss of drawing skill	They will lose their ability to draw. Comments relating to a need for more artists and good drawers were also included in this category.	'We need more artists' 'They will forget how to do it'
Enjoyment	'The loss of the fun and enjoyment of drawing'	'Drawing is really fun' 'You will lose the enjoyment of drawing'
Creativity & imagination	Loss of an opportunity to be creative and imaginative. Also a loss of opportunity to develop these skills.	'Loss of opportunities to practise creativity' 'Because drawing helps your inspiration'
Expression & communication	Loss of an opportunity to express your feelings. Also a loss of a skill that may be useful in communicating your feelings and other information to others.	'You can draw pictures to explain things' 'And you can express your feelings'
Relaxation	Loss of an opportunity for relaxation, will not be able to experience the cathartic effect of drawing.	'It doesn't help you to relax' 'and takes your mind of everything '
Career	It could affect your career choices, for example ruling out carriers in which drawing is a required skill.	It can affect your career choices It will depend what job have

Aids learning	Drawing can have beneficial to the development of cognitive skills. It can aid learning and understanding of other subjects.	‘because it helps you think’ ‘It then doesn’t help them visualize things’
Exercises	A loss of opportunity to exercise – some of these comment related to pencil skills others were more generic.	‘Their hands don’t get the exercise’ ‘They don’t get the exercise’
Other	Comments which either lack clarity or do not fit into any existing themes	
Don’t know	Uncertain about what could be done.	

Children’s Survey 5c. Children’s explanations for why it depends whether it matters or not if you no longer draw.		
Name	Description	Examples
Individual choice	It is up to the individual whether they choose to draw or not.	‘They can do what they want’ ‘It depends on the individual’
Normal development	A belief that a decline in drawing is part of growing up, part of ‘normal development’ and as such is neither a good nor a bad thing it is just how it is.	‘It is just how it is’ ‘It is part of growing up’
Talent	It depends on their drawing talent, good drawers should continue but for others it doesn’t matter.	‘Some of them could be artists, but some of them won’t be’ ‘If they are really good then they shouldn’t give up’
Benefits vs. other activities	There are increasing pressures and choices of activities. Drawing is a valued activity – but some of the benefits could be experienced through other activities.	‘They might show their creativity in other ways’ ‘Drawing is really great but there are lots of other things to do too’
Other	Comments which either lack clarity or do not fit into any existing themes	
Don’t know	Uncertain about what could be done.	

Children’s Survey 5e How can children be helped to draw more as they get older?		
Name	Description	Examples

Adults	Adults should draw more so that the child can follow their example or engage with them in drawing activities.	‘Say would you like to draw with me’ ‘Adults should draw rather than photocopy out of books’
Ideas	Help children think of ideas of what to draw or widen their exposure to art to inspire them with ideas of what to draw.	‘Help them think of more ideas’ ‘Show cool drawings, fun bright ones’ ‘Taken to art galleries to look at pictures’
Drawing Activities	There should be more variety, freedom and fun in the types and content of drawing activities with which children are encouraged to engage.	‘Should be allowed to draw more things that they want to’ ‘More art materials’ ‘Teacher different styles of drawing so people can find what suits them best’
More help	Providing children with more help with drawing.	‘Your parents should help you to draw more’ ‘More drawing training in art lessons’
Encouragement	Children should have more encouragement to engage in drawing and be given encouraging feedback so that they feel more positive about their drawing ability	Ask the parents to tell the children ‘why don’t you do some drawing’ Parents should tell them more that their drawings are good
Time & Opportunity	More time dedicated to drawing at home and at school and more opportunities to draw in the community such as after school clubs.	‘More drawing in school’ ‘More art colleges for people and stuff’ ‘Less homework so we have more time to draw’
Media	Drawing and its benefits should be promoted more in the media, either through adverts, competitions or programmes encouraging drawing.	‘Posters saying you can still draw as you get older’ ‘Drawing competitions on TV’
Nothing	Either thinks that nothing can be done as time spent drawing will occur anyway or they believe that nothing should be done as drawing is not really important.	‘It doesn’t matter’ ‘It up to them what they do’
Other	Comments which either lack clarity or do not fit into any existing themes	
Don’t know	Uncertain about what could be done.	Don’t know

Parent Descriptors

Parent's Survey 1d Why does your child like drawing?

Title	Description	Examples
Imagination	It provides an opportunity for them to be creative and to explore their imagination.	'he likes to tell a story within the picture' 'she is creative'
Expression	It provides an opportunity to express feelings and emotions.	'a means of expressing feelings' 'can express herself'
Enjoyment & self-development	Generic comments relating to child's enjoyment of drawing as well as some more specific comments about eh child finding drawing beneficial for their well-being – e.g. relaxing.	'finds it relaxing' 'he enjoys it' 'finds drawing interesting'
Specific subject matter	They like drawing particular content or topics in their drawings.	'fast cars, animals' 'drawings about her family, or her family with daft hairstyles and faces'
Social motivation	Enjoys spending time with others while drawing.	'he enjoys sitting together and talking' 'likes us to draw together'
Drawing self-efficacy	Child believes that they are good at drawing and takes pride in the drawings that they produce.	she is good at it she likes the results
Technical skills	Enjoys particular parts or skills involved in the drawing process.	'applying the detail' 'likes to produce accurate life like images'
Doesn't like drawing	Child doesn't like drawing.	'I'm not entirely sure that he does like it!'
Other	Comments which either lack clarity or do not fit into any existing themes.	
No response & don't know	No response given or a response indicating uncertainty about why they like drawing.	'Not sure' 'I don't really know'

Parent's Survey 1e What does your child dislike or find difficult about drawing?

Title	Description	Examples
Nothing	The parent responds that there is nothing that their child dislikes or finds difficult.	'Nothing' 'They just love drawing!'

Not meeting own expectations	The child doesn't like it when the drawing does not meet their expectation – i.e. does not look how they wanted it to.	'trying to make things look right' 'not being able to do it as good as he would like'
Specific subject matter	The child dislikes or finds particular subject matter hard to draw.	'finds animals hard to draw' 'masculine things'
Techniques	The child dislikes or finds particular techniques or parts of the drawing process difficult.	'proportions-not being able to get them right' 'difficulty copying'
When there is lack of freedom	When the child does not have freedom to choose what to draw or how to draw they dislike or find the experience of drawing difficult.	'homework... when it has to be specific' 'being told what to draw'
Other	Comments which either lack clarity or do not fit into any existing themes.	
No response & don't know	No response given or a response indicating uncertainty about why they like drawing.	'Not sure' 'I don't really know'

Parent's Survey 1h Why might the amount of time spent drawing decline?

Title	Description	Examples
Developing other interests	Other hobbies, interests and socialising took precedent over drawing. Comments included those made about children choosing to express themselves in other ways.	'Finding new interests and hobbies' 'Busy social life' 'Child use computers to create art and stop drawing'
Decline in perceived drawing competence	As children get older they become less confident and less satisfied with their drawing skills and this leads to them drawing less.	'Get self-conscious about their drawings' 'Start to think their drawings aren't very good'
Academic pressures	Pressures from academic subjects such as English and maths left less opportunity for and emphasis on drawing.	'Other subjects such as maths are more important' 'Focus on passing exams' 'Less drawing opportunity at high school'
Too busy - generic	As children get older there were more things that they had to do which left little time for drawing.	'Increased responsibility' 'More homework' 'Less time'
Drawing isn't encouraged	Drawing wasn't sufficiently supported or encouraged at home or school.	'Drawing may not be encouraged at home' 'Drawing skills aren't supported in lessons'
Peer pressure	Drawing isn't seen as a cool activity for older children and the stigma surrounding art as being a	'Drawing is seen as babyish' 'Not cool' 'Peer pressure'

	babyish activity could result in the child giving up on drawing.	
Normal development	Parents saw the decline as part of normal development or believed that drawing is not an important skill used by adults	‘No need to draw in adult life’ ‘Children rely less on pictures to communicate as they get older’
There is no decline	‘Parents did not believe that there was a decline in drawing	‘Child draw at any age – no decline’
Other	Non-descript or ambiguous response	‘Depends on the individual child’

Parent’s Survey 1i: explanations for why it does matter if children spend less time drawing as they get older.

Title	Description	Examples
Developing expression and creativity	Drawing is seen as a creative outlet which allows the child to express themselves and their creativity.	‘Drawing is expressive’ ‘Drawing is therapeutic’ ‘Allows creativity’ ‘Art allows communication’
Drawing is relaxing	Drawing was seen as an activity which allowed the child to relax and gave them a break from the pressures of the curriculum.	‘Good way for children to unwind’ ‘Gives the child a break from the curriculum’
Drawing aids personal development	An activity which plays an important part in developing feelings of satisfaction which aids personal development.	‘Develops confidence’ ‘Give child sense of achievement’ ‘Art is rewarding’
Children loose a skill	Decline in drawing would result in children losing an important skill and confidence on their own drawing ability.	‘Good skill to have’ ‘Loose a skill’ ‘Loose confidence in drawing skills’
Career Prospects	Artistic skills could lead to a good job.	‘Drawing could lead to a job’
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	‘Discourages original artwork’ ‘Drawing gets children away from the TV’

Parent’s Survey 1i: explanations for why it does NOT matter if children spend less time drawing as they get older.

Title	Description	Examples
Individual Choice	It is up to the individual child, what they enjoy and what they are good at.	‘Some children don’t enjoy drawing’ ‘Children should only be encouraged to draw if they want to’
Diversifying Interests	As long as the child had other interests a decline in drawing	Doesn’t matter as long as they have another outlet

	didn't matter.	Children can express themselves in other ways
Career	It does not matter as long as it will not affect their future career prospects.	'As long as it doesn't affect the chosen career' 'As long as it doesn't affect exam results'
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	

Parent's Survey 1J What do you think can be done to stop a decline?

Title	Description	Examples
Time and opportunity	More time and opportunity to engage in art activities should be offered to children.	'Time allocated at school for art and craft' 'Have art projects for children to get involved in'
Raise profile of art in school	The profile of art in the school should be raised through in school promotion of the values of the arts.	'Art should be integrated into more subjects at school' 'Stronger emphasis on art at school' 'Promotion in high school'
Support for drawing at home	For parents to be more supportive of drawing thorough providing encouragement, being a role model who draws and values drawing and helping the child to find the time and opportunity for drawing at home.	'Make parents aware of the benefits of drawing' 'Parents to carry on drawing' 'Less TV, computers'
Encourage and build confidence	Children should receive more encouragement and praise.	'Don't criticize children if they aren't drawing well' 'Encourage children to draw and create'
Make art more fun	Art activities need to be fun and inspiring. Many comments related to art lessons at school.	'Make art at high school relaxing like it is in primary school' 'Make art lessons fun' 'Funky approach to art'
Help to develop skills	Parents felt that children needed more help to develop their drawing skills	'Teach children the skills they need to create art' 'More help to produce good drawing results'
Promote art in the media	Art should be promoted through the media. In particular parents commented that more art programmes should be aired on TV.	'Art programmes aimed at older children' 'More programmes such as art attack'
Promote art as a career	Children should be made aware of careers in the arts and that these careers are valued by others.	'Encourage children who want to go to Art College' 'More serious approach needs to be taken by careers advisors working with

		children who want a career in the arts'
Nothing	Nothing could or should be done to stop the decline	'The decline is nothing to worry about' 'Drawing is just something you enjoy or not'
Don't know	Unsure of what should/could be done.	'Don't know'
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	'More valuing of individual style'

Parent's Survey 2b. In what specific was do you help your child with his or her drawing?

Title	Description	Examples
Shouldn't help	Parent felt as though they should not offer the child help unless they ask for it. In particular comments were made about not altering a child's drawing.	'Leave the child to work alone unless they ask for help' 'Try not to say things like 'try to make this longer' etc' 'Parents must never alter a drawing'
Can't help	Does not offer help or they don't feel as though they can offer the child help.	'She is better at drawing than I am!' 'It is difficult because I don't like drawing'
Encouragement	Praise and encouragement as the child draws. They show the child that they value the work that they produce.	'I encourage him as he works' 'Give praise' 'I keeps and art folder for her work'
Shares in experience with child	Joining in the drawing activity with the child without working to improve or guide the production of the child's work, just to have fun with the child. The parent also talks to the child about their work.	'Draw with the child' 'Turn drawing into a game' 'Colour in with him'
Materials	Providing materials for the child to use when drawing.	'Provide materials' 'Buy new pencils'
Ideas of what to draw	Provides ideas about what to draw.	'Discuss ideas before drawing' 'Give him ideas of what to draw'
Parents draw more	Setting a positive example by drawing more frequently themselves.	'Drawing myself' 'Create my own drawing for pleasure'
Make time for the child to draw	Making time and encouraging the child to take time over their drawings.	'Make time' 'Encourage her to take her time' 'Practice makes perfect'
Tips for improvement	'On task help' pointing out things	'I suggest ways for her to

	that can be improved, helping the child when they get stuck and offering verbal feedback on their drawing.	improve the drawing' 'Talk about what needs correcting' 'Comment on her work'
Techniques and skills	Parent focuses on the technical aspects of drawing and developing the child's technical skills	'Give technical advice' 'Copying from training books'
Demonstrations	A graphical demonstration of a technique or specific subject matter.	'I draws an example for the him to copy' 'I draw examples on another sheet of paper for her to look at'
Alters Drawing	Alters the child's work by rubbing things out or adding things in to make it better.	'Occasionally add in bits' 'Rub things out if they are wrong'
Don't know/No response	Unsure of what should/could be done – or no comments made.	'Don't know'
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	'Not having a television'

Parent's Survey 2b. 'What makes a child's drawing good?'

Title	Description	Examples
Expression and imagination	When the child has shown expression or imagination in their drawing, something which is unique to them in some way.	'Self-expression' 'The imagination that has gone into the drawing' 'Creative interpretation of a subject'
Child's enjoyment	Child's enjoyment of the drawing process.	'Enthusiasm' 'When he is proud of it'
Detail	The detail within the picture. Some comments related to the amount of detail others to the quality of that detail.	'Attention to detail' 'More detail'
Colour	The colour within the picture, how it is used and the amount were both commented on.	'Colour is important' 'Good use of colour'
Care & effort	High levels of care and effort.	'Time and effort' 'Working to best of their ability'
Owning the drawing	That there is uniqueness to the drawing that connects it to the individual child in some way.	to see their own style stamped on it when they do it alone
Techniques	A good level of technical skill is demonstrated.	'Accuracy' the composition
Representation	A drawing which is a recognisable and good representation of what the child intended it to be.	'Recognisable' 'Accurate and true life representation'

Subject matter	Comments about the content of the drawing.	‘Content’ ‘A wide range of subject matter’
Supportive drawing environment	The environment around the child influences the quality of their drawing.	‘Encouragement from me and the family’ ‘Good materials’ ‘Proper tuition is important’
All good	All children’s drawings are good.	‘All good’ ‘They are all good’ ‘None are bad’
Don’t know/No response	Unsure of what makes a child’s drawing ‘good’ – or no comments made.	‘Don’t know’
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	‘Mood.’

Parent’s Survey 2b. ‘What makes a child’s drawing bad?’

Title	Description	Examples
They are all good	All children’s drawings are good.	‘All good’ ‘They are all good’ ‘None are bad’
Care & effort	A lack of care and effort.	‘Half-hearted attempt’ ‘Not taking time’, ‘Just scribbling’
Child’s attitudes	When the child has a negative attitude towards the drawing that they are creating.	‘Tiredness’ ‘Lack of patience’ ‘Lack of motivation’
Lack of expression & imagination	When the drawing lacks any evidence of the child being expressive and/or making the picture imaginative in some way.	‘Copying other children’ ‘No imagination’ ‘Inability to express himself’
Detail and colour	Comments about the details and colour in the drawing. Some comments related to the amount and others to the quality.	‘Not enough detail and colour’ ‘Lack of detail’
Lack of help	When children have not received sufficient help and support.	‘Not being shown how to use pencils’ ‘Lack of encouragement’
Don’t know	Unsure of what makes a child’s drawing ‘bad’	‘Don’t know’
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	‘Negative opinions’

Parent's Survey 3c what are the benefits of drawing?

Title	Description	Examples
Expression	An opportunity to be expressive.	'A way of expressing themselves' 'Put feelings down and express them'
Creativity & imagination	An opportunity to be creative and imaginative.	'Chance to be creative' 'Let imagination run wild use of imagination'
Relaxation & enjoyment	An opportunity for relaxation and enjoyment	'Quite time to relax' 'Provide a relief from endless pressure' 'Enjoyment'
Pride & confidence	Taking pride in the end product, developing confidence and receiving praise from others.	'Praise from parents and friends' 'Give them confidence' 'The feel happy about what they achieve'
Art is therapeutic	Art is therapeutic, in particular the cathartic benefit of drawing was commented on.	'It can help with behaviour' 'Art is therapeutic'
Social activity	An opportunity to enjoy drawing with others and to develop their social skills through working together on drawing activities.	'Enjoy drawing with family and friends' 'Helps them interact more'
Cognitive skills	They develop cognitive skills useful in a range of different domains skills	'Helps them concentrate' 'Encourages language' 'Good memory functions'
Drawing skills	They develop skills that are useful for drawing – some of which may also be useful in other domains too.	'Observational skills' 'Skill building' 'To see and copy details'
End product	The drawing itself is a benefit of drawing.	'It is good to look back on what you have done' 'You see how they see things through their eyes'
Don't know	Unsure of benefits.	'Don't know'
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	'Entrepreneurship'

Teachers Survey

Teachers Survey 1e What benefits do children get from making drawings?

Title	Description	Examples
Expression	An opportunity to be expressive.	'Self-expression' 'Communication of their

		feelings’
Creativity & imagination	An opportunity to be creative and imaginative.	‘Chance to be creative’ ‘Freedom to develop their own ideas and to be imaginative’
Relaxation & enjoyment	An opportunity for relaxation and enjoyment	‘Quite time to relax’ ‘Provide a relief from endless pressure’
Pride & satisfaction	Taking pride in the end product, developing confidence and receiving praise from others.	‘Praise from parents and friends’ ‘Give them confidence’ ‘The feel happy about what they achieve’
Aids cognition and learning	Drawing facilitates the development of cognitive skills useful in a range of domains. Furthermore, drawing can help develop pupils understanding of subject matter.	‘It helps develop their ability to concentrate’ ‘It helps developing their insight and understanding of history’
Opportunity for academically weak	It is predominantly beneficial to those who are academically weak. For example it is an opportunity for those pupils who are academically weak to succeed at something and to express themselves.	‘It is useful for those who cannot write well as it provides them an opportunity to record their experiences’ It gives some of the less able children a chance to take pride in what they do’
Observation/visualisation	Beneficial to the development of observation and visualisation skills.	‘It helps them to develop attention to detail’ ‘It teaches them to look more carefully’
Don't know	Unsure of benefits.	‘Don't know’
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	

Teachers Survey 2a In your opinion what makes a child’s drawing ‘good’?

Title	Description	Examples
Expression and imagination	When the child has shown expression or imagination in their drawing, something which is unique to them in some way.	‘Self-expression’ ‘A drawing which is unique, shows something of their personality’
Detail	The detail within the picture. Some comments related to the amount of detail others to the quality of that detail.	‘Attention to detail’ ‘More detail’
Colour	The colour within the picture, how it is used and the amount were both commented on.	‘Colour is important’ ‘
Care & effort	High levels of care and effort.	‘Trying hard’ ‘Working to best of their ability’

Techniques	A good level of technical skill is demonstrated.	‘Accuracy’ the composition
Representation	A drawing which is a recognisable and good representation of what the child intended it to be.	One which achieves a high level of realism’ ‘Accurate and true life representation’
All good	All children’s drawings are good.	‘They are all good
Don’t know/No response	Unsure of what makes a child’s drawing ‘good’ – or no comments made.	‘Don’t know’
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	‘Mood.

Teachers Survey 2b In your opinion what makes a child’s drawing ‘bad’?

Title	Description	Examples
They are all good	All children’s drawings are good.	‘None are bad’
Care & effort	A lack of care and effort.	‘Not trying’ ‘Putting no effort in’
Poor Representation	When the drawing does not achieve the level for realism suitable for the child’s age.	‘When it doesn’t look like what the child was meant to be drawing’
Lack of expression & imagination	When the drawing lacks any evidence of the child being expressive and/or making the picture imaginative in some way.	‘Copying other children’ ‘No imagination’ ‘Inability to express himself’
Detail and colour	Comments about the details and colour in the drawing. Some comments related to the amount and others to the quality.	‘Not enough detail and colour’ ‘Lack of detail’
Don’t know	Unsure of what makes a child’s drawing ‘bad’	‘Don’t know’
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	

Teachers Survey 2c In what specific ways do you encourage children in your year group to improve their drawing?

Title	Description	Examples
Encouragement	Praise and encouragement as the child draws. They show the child that they value the work that they produce.	‘Give praise’
Tips for improvement	‘On task help’ pointing out things that can be improved, helping the child when they get stuck and offering verbal feedback on their drawing.	‘Comment on their work’
Techniques and skills	Teacher focuses on the technical aspects of drawing and developing the child’s technical skills	‘Give technical advice’
Demonstrations	A graphical demonstration of a technique or specific subject	‘I draws an example to show them what I mean’

	matter.	'I trace the outline with my finger so that they can see where to put the line'
Communication of expectations	Sets clear expectations – outlining exactly what they expect.	'I tell them exactly what I want to see'
Careful work	Encourages the children to work carefully, taking their time and concentrating on their drawing.	'I tell them to be quite and concentrate'
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	

Teachers Survey 3b What do your pupils like about drawing?

Title	Description	Examples
Sense of well-being	It helps them to relaxe and to feel calm.	'They find it relaxing'
Imagination and expression	It provides an opportunity for them to express themselves and to use their imagination.	'To show how they feel'
Break from academic subjects	It provides a break from the more academic subjects taught at school.	'It is a break in the school day for them'
Not having to write	Comments which specifically compare drawing to writing.	'They enjoy it because it isn't writing!'
Freedom	When there is total freedom to choose what to draw and how to draw it.	'The freedom to do what they want'
Achievement	The sense of satisfaction that children get from completing their drawing.	'They feel proud of their drawings'
Colour	Children's enjoyment of colouring in their pictures and generic comments about enjoyment of using colour.	'The colouring' 'Colour'
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	

Teachers Survey 3c What don't your pupils like about drawing?

Title	Description	Examples
Concentration/patience required'	The perseverance and concentration required to create a drawing.	It taking too long and requiring considerable patience'
Not meeting the expectations of others	Not meeting the expectations that others have.	'Feeling judged'
Not meeting own expectations	Not meeting their own expectations of what the finished drawing should look like.	'Not feeling that they have done a good job'
Specific subject matter'	Comments about specific subject matter that they do not like drawing.	'People'
Lack of freedom	When they perceive there to be a	'When they are told what to

	lack of freedom in their drawing.	do'
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	

Teachers Survey 3f Please list reasons why you think that drawing activity may decline as children get older?

Title	Description	Examples
Too busy	Generic comments about being too busy.	'Too busy' 'They just don't have the time anymore'
Diversifying interests	Diversification of interests and increased choice of foretime activities.	'There are lots of other things for them to do' 'They spend more time out with friends'
Increasing curriculum pressures	Pressure to spend time on other subjects at school (including increased amount of homework in these other subjects too).	'Maths and English become more important' They have to do more writing'
Peer pressure	They perceive that drawing is not 'cool' and that their friends might think that it is a childish activity.	'Drawing is maybe seen to be a bit childish'
Low perceived drawing competence	They don't think that they are very good at drawing.	'They lose their confidence' 'They become more critical of their own drawings'
Lack of interest	They lose interest in drawing.	'They go off it'
Don't know	Unsure of reasons for a decline	'Don't know'
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	

Teachers Survey 3g Why does a decline in children's drawing matter?

Title	Description	Examples
Expression and creativity	It is an opportunity for them to be expressive and creative.	'It is a means of expression' 'They can exercise their imagination'
Relaxing	It is a chance for them to relax and unwind.	'It gives them a break, a rest'
Art is important	Generic comments relating to the importance of art and drawing	'It is beneficial' 'It is important'
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	

Teachers Survey 3g Why does a decline in children's drawing NOT matter?

Title	Description	Examples
Individual choice	It is up to the individual, what they enjoy and what they are good at.	‘It is up the child’
Normal Development	It is part of growing up, of ‘normal development’.	‘It is just what happens as they mature’
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	

Teachers Survey 3h What do you think could be done to help stop this decline?

Title	Description	Examples
time	More time and opportunity for drawing.	‘There needs to be more time for drawing’
More support at home for drawing	Parents to be more supportive at home, e.g. encouragement, provision of materials.	‘Parents need to take a more active role’ ‘Children need good quality materials at home’
Inspiring (fun) drawing activities	Drawing activities need to be inspiring, they should be fun and there should be the opportunity for children to develop existing interests and also discover new ones.	‘Having artists visit the school’ ‘Experimenting with new materials – such as charcoal and oil pastels’
Raise the profile of art in school	Drawing needs to be more valued at school and within the curriculum.	‘More time for drawing at school’
Nothing	Nothing should be done.	‘Nothing needs to be done’
Don’t know	Don’t know what needs to be done.	
Other	A non-specific or ambiguous response which does not fit into any of the other categories.	