

**EXAMINING HOW INTEGRATING DIGITAL TECHNOLOGY WITH TRADITIONAL  
MEDIA IMPACTS THE PROCESS OF ARTMAKING IN THE ART CLASSROOM –  
A CASE STUDY OF A GRADE 6 CLASS IN AN INDEPENDENT GIRLS’ SCHOOL  
IN GAUTENG**

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## **Abstract**

The 21<sup>st</sup>-century classroom is experiencing global changes that require digital technology to be integrated in the curriculum of each subject offered in schools. Digital technology is shaping and forming identities, accelerating information transfer, communication and development of school curriculums in the foundation, primary and high school phases.

This research study was aimed at examining how integrating digital technology with traditional media impacts the process of artmaking in the art classroom, in a grade 6 class in an independent girls' school. Art, as a subject that deals with topics of identity, society and belonging, seeks to find ways in which it can reflect the direction young global citizens are navigating through the spaces of their everyday lives. The noted 'digital divide' in South African schools requires the art teacher to embrace the use of digital technology in the most advantageous and ideal manner without drifting away from traditional mediums that have grounded the practice for many centuries.

This research study was designed to use both qualitative and quantitative data collection tools. As a case study, it also used an art-based and an interpretive approach. The Grade 6 learners from the specific independent school had to create a collage using traditional mediums such as paint, charcoal, pencil and pasting strips torn from newspapers and magazines. They then had to make use of digital technology such as offered through Apple MacBook and iPads to enhance their collages in order to present complete artworks to be printed out.

The use of digital technology was found to affect the learners' ability to create quality artworks. The learners' perceptions and understanding of art after having used digital technology did not change drastically, but they came to understand that art can be created with the use of different mediums including technology. Learners were able to identify the role digital technology could play in making art and how using digital technology furthered the representation of work created in traditional mediums.

The conclusion was that many learners demonstrate a positive attitude towards using digital technology to enhance their artworks. Using digital technology had the effect of making learners' artwork seem to be of better quality than the original works. The

learners gained a solid understanding of what art is. Young female Grade 6 learners were able to grapple with issues of identity construction through the making of collages using both traditional and digital media. The learners were able to engage with both mediums in a critical, experiential manner. Active learning took place while using both traditional and digital technology and learners were enabled to embrace creating artworks in environments other than the art classroom. Their high engagement with both digital and traditional mediums demonstrated the usefulness of both media in the art classroom to Grade 6 learners.

## Abstrak

Die 21ste eeu se klaskamer ervaar globale veranderinge wat vereis dat digitale tegnologie geïntegreer word in die kurrikulum van elke vak wat aangebied word in skole. Digitale tegnologie vorm verskillende identiteite, dit versnel die oordra van informasie, kommunikasie en die ontwikkeling van skool kurrikulums in die fondasie-, primêre- en sekondêre fases.

Hierdie navorsingstudie se fokus en doelwit was om te bepaal hoe die integrering van digitale tegnologie met tradisionele media die skepping van kuns in die kunsklas, in 'n Graad 6 privaat meisieskool, beïnvloed. Kuns, as 'n vak wat verskillende temas behandel soos identiteit, die gemeenskap en om te voel jy êrens behoort. Dit probeer maniere vind om vir jong globale landsburgers te lei deur die spasies van hulle alledaagse lewe. Die bespreekte 'digitale skeiding' wat daar in Suid-Afrikaanse skole is, vereis dat die kunsonderwyser die digitale tegnologie op die mees gepaste en idiale manier gebruik, sonder om te ver weg te beweeg van die tradisionele metodes wat al vir eeue lank die fondasie van kuns is.

Die navorsingstudie was ontwerp om sowel kwalitatiewe as kwantitatiewe data versamelings instrumente te gebruik. As 'n kunsstudie gebruik dit ook 'n kunsgebaseerde en 'n interpretasie benadering. Die Graad 6 leerders van dié spesifieke skool moes 'n collage skep met die gebruik van verf, houtskool, potlode en stukkies papier wat geskeur is uit koerante en tydskrifte. Die leerders moes toe digitale tegnologie gebruik, soos die beskikbaar op 'n 'Apple MacBook' en 'n 'iPad' om hulle kunswerke te verbeter en dan as 'n finale produk uit te druk.

Daar was gevind dat die gebruik van digitale tegnologie die leerder se vermoë om kwaliteit kunswerke te kan skep geaffekteer het. Die leerders se persepsie en wat hulle van kuns verstaan na die gebruik van digitale tegnologie het nie drasties verander nie, maar hulle het besef dat kuns geskep kan word met die gebruik van verskillende mediums insluitend tegnologie. Leerders kon die moontlike rol van digitale tegnologie in die skepping van kuns identifiseer en selfs ook hoe die gebruik van digitale tegnologie die kunswerk wat geskep is met tradisionele metodes moontlik kan verbeter.

Die gevolgtrekking was dat baie leerders 'n positiewe houding teenoor die gebruik van digitale tegnologie om hul kunswerke te verbeter demonstreer. Die gebruik van

digitale tegnologie in die leerders se kunswerke het die kwaliteit van die kunswerke verbeter. Die leerders het nou deeglike kennis van wat kuns is. Die jong Graad 6 meisies het deur die skepping van collages geworstel met die konstruksie van identiteit tussen tradisionele en digitale media. Die leerders het met albei die mediums betrokke geraak op 'n kritiese en eksperimentele manier. Aktiewe leer het plaasgevind en leerders kon deur die gebruik van tradisionele en digitale tegnologie kunswerke skep in 'n ander omgewing as net die kunsklas. Die suksesvolle gebruik van albei hierdie mediums demonstreer die bruikbaarheid van dit in die Graad 6 kunsklas.

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## CHAPTER 1: INTRODUCTION

The advent of the twenty-first century has seen a number of technological developments that affect almost every aspect of our lives (Mdlongwa 2012:01). According to Nkula and Krauss (2014:241), technology plays an important role in education and its uses are associated with improving student learning and adding value to the curriculum. Held, [Mc Grew, Goldblatt and Perraton](#) (1999:68), furthermore, are of the view that technology enables artists to be members of the global art world. This global art world embodies a transformation in the spatial organisation of social relations and transactions.

According to Shahneaz, Akhter and Yasmin (2014:79), the integration of technology with education establishes sound practice. In essence, educators should welcome educational technology in order to encourage creative exploration, invention and testing within the classroom. In the age of rapid globalisation educators must not shy away from using digital technology in their classrooms as it may help in facilitating the work of teams and may provide ample time for all-round development. The learners may be able to apply critical thinking skills in their attempt to integrate digital technology for enhancing their traditionally produced artworks and form diverse perspectives of their knowledge production processes. With the use of digital technology in class, learners are enabled to query many ways of knowledge creation and attempt to find solutions to prior problems. However, utilising digital technology in the classroom does not necessarily mean that the learning process of the learners improves. It is worthwhile, therefore, to explore the implementation of technology in the art classroom. Implementing the use of technology in the art class could provide assistance to the educator's pedagogical practices and the learning style of the learners.

My aim as researcher was to examine how the use of digital technology in the art classroom affects how a traditional process of art creation, namely collage, is viewed. Digital technology was used to enhance the collage created by the Grade 6 learners in the art classroom. The learning outcomes of this project were open-ended in order to encourage the visual arts learners to explore the usefulness or lack thereof of integrating digital technology with their project of making a collage. The learners were required to create a collage in line with a given theme. They had to make a collage

using recyclable materials, drawing, painting and etching. Software called Keynote was used by the learners and the collage was sent to the software via Airdrop. Following this, the learners used the software to enhance the collage through exploration of the different features and effects of the software, such as enhancing contrast and cropping, or more advanced effects like changing composition/layout, rendering images in reverse or as transparent. The learners' acceptance of the software and ease of use of the software were observed during the art making process. Attitudes to and behaviour towards the software were noted in further observations, questionnaires and face-to-face interviews. I asked questions such as "how do learners respond to the use of digital technology in the art classroom?" The answer to such a question was expected to be complex as my aim as the researcher and an art educator was to conduct qualitative research wherein complicated answers that were gathered would communicate the nuances of this case study. The negative, positive, and hidden impacts of integrating digital technology in the art classroom were documented and safely stored in a secure locker and backed up in soft copies of the collected data. The use of digital technology in the art class further directed me in uncovering how the use of software in collage creation could decolonise dominant narratives in the visual arts classroom.

In order to introduce this research, it is necessary to expand on the background, problem statement and research questions as well as the aims and objectives. Additionally, an overview of the research methodology, the research population and sample are presented. Finally, this chapter provides more information regarding the ethical considerations and anticipated field problems, as well as an explanation of the structure of the thesis.

## **1.1 Background**

The 21<sup>st</sup> century is characterised by technological innovations that influence the entire world community, including the school environment. In the field of educational development, which Mdlongwa (2012:01) describes as any novel action which seeks to enhance the efficiency and productivity of both the teaching and learning of any particular subject, technology has become the core part in some attempts to promote educational development. In this study, I examined the effects of integrating traditional media with digital technology during the process of art making in the visual art

classroom at a girls' preparatory school in Gauteng. The school has good infrastructure with advanced computer laboratories and a well-resourced art classroom. The school embraces digital technology advancements and uses digital technology as a tool to improve pedagogical practices for teachers and learning processes for the learners. As an art educator in this school, I sought to create a dynamic link between digital technology and traditional art media in the art classroom. Blair (2012:08) states that there is a dramatic shift sweeping through our schools, where third graders are texting on their cell phones, kindergarteners are navigating an iPod Touch and high school learners already have skills in operating internet channels. Mdlongwa (2012:01) puts forward that the ever-growing use of digital information communication technology tools is at the core of this technological usage.

According to Nkula and Krauss (2014:241), many schools in countries such as South Africa still do not have access to technology. Moreover, many of the schools that do have access to technology tend to use this in a limited manner and only focus on learning about computers. My experience as a teacher in visual arts in both private and public schooling systems has shown the need for digital technology to be part of the pedagogical process in the art classroom. In the public school system in which I taught for three years, learners were not permitted to bring cell phones onto the school premises. They had minimal exposure to different digital technologies such as computers, smart boards, printers and iPads within the school environment. This, in my view, could limit their participation within the global world because of the weak link between digital technology and their own school environment. In contrast to the public school system, the learners in some private schooling systems are allowed access to their cell phones during the art lessons as well as in other lessons. They have access to digital technological devices such as printers, laptops, iPads, scanners and Wi-Fi. They have an Apple computer laboratory and are allowed to use iPads in most of their other lessons. As I have observed, learners have utilised their iPads in the art classroom mainly for listening to music while they work, and looking for reference images to work from when doing their drawings or paintings. The integration of technology in the art classroom environment may encourage learners to identify a need for digital technology as part of the visual arts curriculum and personal development for individuals in the school setting. Young (2008:5) comments on how digital technology tools should be used to motivate students in the Information Age by

making their lessons more relevant to real world experiences.

## **1.2 Problem statement**

Integrating digital technology within the art classroom could affect the process of art making as well as the teaching and learning experience for both learners and educators.

## **1.3 Research questions**

The research questions guided the focus of the study in order to derive complex answers from the qualitative investigation of this case study.

Data collection was informed by the following questions:

### Main question

How does using digital technology with traditional media affect the process of art making and the teaching and learning experience for learners and educators in the art classroom?

### Sub-questions

- To what extent does the use of digital technology in the art classroom affect the learners' ability to elevate the quality of their artworks?
- How does using digital technology to enhance the final artwork affect the learners' view of what visual arts predominantly represent?
- How can learners link digital technology and traditional media in the art making process?
- How does integrating technology with the making artworks decolonise art education?
- How can the learners identify the role that digital technology plays in furthering the representation of artworks originally created with traditional media?

## **1.4 Aims and objectives**

The main aim of the study was to examine how integrating digital technology with traditional media impacts the process of art making and the teaching and learning

experience in the art classroom. As an educator granted the freedom to design my own art lessons, my aim was to devise a method in which I could decolonise the art process by using technology in the art class. This involved creating an art classroom environment that was not isolated from the digital technological advancements of the world in which it belongs. By using technology, learners could gain access to art and artists around the world, including many South African and African artists. They could experience virtual visits of galleries all over the world within the classroom environment. Learners could share their art on Instagram, Facebook and other social media without the barriers previously imposed by gallery spaces or exhibition spaces. I furthermore investigated whether technology could also perpetuate the coloniality of only favouring Western and Northern artists and art styles (or only using Western and Northern art making techniques and teaching techniques). Some South African and African artists also challenge existing norms by using technology to diffuse colonial perspectives. These artists use technology to explore ways in which indigenous knowledge can be preserved and taught to coming generations. As an art educator based in a post-modern school that has embraced the technological advances of the global society, I sought to find ways by which to bridge the gap that existed in my art classroom by putting to use the digital tools that other teachers were already using in their subjects. In my art classroom traditional mediums had mainly been used to make artworks, and digital technology was only used for reference to images use by learners when making their work. Furthermore, the plan for me as the art educator was to extend the use of digital technology by making it part of the process of creating the artwork. The main drive of this case study was a desire to use the digital tool that the learners brought to school on a daily basis, and could use effortlessly, to enlarge the scope of its use in conjunction with traditional mediums for making art.

The objectives of the study involved the following:

- Applying digital technology in the Grade 6 art classroom and observing the quality of learners' work by comparing it with their previous work;
- Using digital technology for enhancing the final artwork and observing the learners' view of what visual arts predominantly entail;
- Testing the learners' ability to link digital technology and traditional media in making artworks;

- Exploring ways by which integrating digital technology in making artworks decolonise art education;
- Observing the learners' ability to identify the role digital technology plays in furthering the representation of artworks originally created with traditional media.

## **1.5 Overview of the research methodology**

This research study used both qualitative and quantitative data collection tools. The mixed methods used in this study allowed the researcher to collect data that could be calculated (quantity) and data which explain participants' views (qualitative).

This research mainly relied on a qualitative research methodology characterised by arts-based inquiry within an interpretative paradigm and case study research design. As a case study, it involved an in-depth exploration from multiple perspectives of the uniqueness and complexity of this particular project, institution and system in a real-life context (Marshall & Rossman 2016:343). To collect empirical data, in-depth individual interviews were conducted with participants to investigate their views of experiences. The participants were issued with questionnaires that were simple to answer and understand. Yes or no questions in the questionnaire also required that learners give reasons for their choices. Simplifying the format of the questionnaire ensured that the possibility of participants leaving questions unanswered was minimised. As the learners were still from primary school, the aim was neither to intimidate them nor to make the experience of filling in a questionnaire daunting and too formal. The research was conducted during lesson time which lasted for an hour once a week. Four lessons involving a total of four hours were involved in one month. During this time, close observation of the learners' approach to the theme, the images they chose, their choice of traditional media, and preferred styles and techniques took place. Observations of how introducing digital media for the final stage of the art making process affected their views and opinions concerning what art should be and how art is predominantly produced were recorded.

## **1.6 Research population and sample**

A research population comprises all the people or items that one wishes to understand



whilst the population sample is a selected segment of the population for investigation (Rahi 2017:3). The research population comprised young girls in grade 6 at a girls' primary school with ages ranging between 11 and 12, from diverse ethnic backgrounds such as Indian, Black and White. This girls' primary school is part of five different schools under one college. The sample from this qualitative study consisted of 28 female learners in the art classroom. All these Grade 6 learners had equal access to iPads and brought them to the art classroom during their art lessons. These iPads belonged to the learners and not to the school.

The data were collected using open-ended questionnaires, classroom observation checklists, group discussions and individual interviews. This meant both qualitative and quantitative methods of data collection were applied in order to get the best possible responses in the research study.

### **1.7 Ethical Considerations**

Ethical clearance, as stated by Pillay (2014:196), is very important when conducting research with children. Furthermore, definitions of ethics for consideration either explicitly or implicitly emphasise the importance of values, moral principles and obligations, and the protection of children from all harm and danger throughout the research process. Since the learners in this study were minors, consent forms were issued to their parents to obtain permission for them to participate in the research. The consent forms assured parents that participation would be anonymous and the participants' identities would be protected at all times and thoroughly explained the research process. Ethical clearance was received from the Stellenbosch University ethics committee. Institutional permission was received from the selected girls' primary school for the research to be conducted using the school's computer laboratory, the art class and overall context in data collection. The ethical clearance and ethical consideration had to be taken into account before commencing with the research to ensure that all participants benefited from the study. The participants were informed that taking part in the study would be voluntary. They could decide to withdraw their participation at any time without any negative consequences. The learners who were participants in this case study also needed to complete consent forms. The consent forms could be easily understood by children. Copies of the consent forms for the parents/guardians and for learners were stored safely on backup files on an external

hard drive, as well as in hard copy form in a locker in the store room of the art classroom. Learners who chose not to participate in the study were included in the lessons that formed part of the research study because it was part of the normal school curriculum, but their data were removed before data analysis. This ensured fair treatment of all the learners and that no learners felt excluded from the lessons.

English, the preferred language of most of the learners at school and at home, was used throughout the duration of the research. Kaiser (2009:4) describes the convention of respect of confidentiality and anonymity as a means to protect research participants from harm and a means to protect the privacy of all persons; to build trust and rapport with study participants; and to maintain ethical standards and the integrity of the research process. The learners were aware of who participated in the case study. This meant the process was not entirely anonymous among the participants themselves. Furthermore, the research was conducted in their art classroom and the computer laboratory. These were familiar spaces to the learners where they felt safe. As their art teacher, I ensured that they consistently felt safe by checking on their progress, behaviours, and their feelings, thoughts and opinions throughout the period of research.

### **1.8 Anticipated field problems**

The major limit to the study was expected to be parents' apprehension about their children being participants in the study. Inadequate lesson time furthermore could limit the number of mediums used in creating the collage. Compromise regarding the quality of the collage production due to limited time could pose a disadvantage to the study and load shedding could disrupt the use of computer laboratories dependent on electricity. These anticipated limitations to the research required me to arrange a meeting with parents to discuss the intentions of the study and how the study would not infringe on the learners' human rights in any way, and would also benefit the learners. I explained the benefits of the study and its aims as mainly focused on improving the way digital technology is used in the art classroom. With regard to the insufficient lesson time, I ensured that I some break times or after school hours would be used to complete the case study. This was to be conducted once permission from the guardians and school management had been granted.

## **1.9 Structure of the thesis**

Chapter 1 (Orientation to the study) provides an introduction to the research that took place. This chapter provides some background to the study, identifies the research question(s) and the problem statement guiding the study. This chapter also indicates limitations to the study. Chapter 2 (Theoretical perspectives) contains detailed examinations of the main theoretical themes that will be woven into the case study. Chapter 3 (Methodology) presents the research approach and paradigm; an explanation of how the research samples were selected; and important ethical considerations that were put in place during and after the completion of the investigations. The methods used to analyse the raw data collected during interviews, focus group discussions and observations are also discussed. Chapter 4 (Data and discussion) presents an analysis and a discussion of the findings from data collected during the case study. Chapter 5 (Conclusions and implications) brings the investigation to a close, by means of concluding remarks from the analysis and the discussion of the data.

## CHAPTER 2: THEORETICAL PERSPECTIVES

### Introduction

The following theoretical perspectives formed the theoretical framework of this research study: globalisation, global citizenship, art education, decolonisation, praxis and hidden curriculum.

### 2.1. Globalisation

Globalisation is an important departure point of this case study as it is the concept that grounded the discussions and theoretical frameworks of the research. Globalisation is a familiar term associated with the technological advancements of the 21<sup>st</sup> century that have led to the centralisation of knowledge, capital and global economies. It is said to influence all domains of life: the economy, education, culture, society and so forth (Abdelhadi & Ahmed 2015:8). Held et al. (1999:68) describes globalisation as “a process (or set of processes) which embodies a transformation in the spatial organisation of social relations and transactions – assessed in terms of their extensity, intensity, velocity and impact – generating transcontinental or interregional flows and networks of activity, interaction and the exercise of power”. Abdelhadi and Ahmed (2015:22) describe globalisation as one of most powerful worldwide forces transforming the basis of business competition, paradoxically therefore outlining an era in which small, local communities of practice may lead to a prominent structural form. Furthermore, globalisation is described as “the inscription of the particular and the contextual associated with ‘identity’ in the global operation of capital” (Dimitrakaki 2012:308).

Homogenisation and hybridisation are effects of globalisation. Held et al. further states that globalisation has destroyed diverse cultures and stable localities, has displaced people and has brought about a market-driven ‘branded’ homogenisation of cultural experience (Held et al. 1999:269). This has led to the destruction of the differences between locality-defined cultures that had formed part of the identities of their people. The world will therefore adopt a ‘global culture’ which implies that there will be standardised and commercialised commodities that will be based on an interdependent system of communications, generalised human values and interests as a scientific discourse of meaning (Held et al. 1999:279). Hybridity, a primary process of globalisation, which refers to the collision and fusion of the dynamics of

complex connectivity leads to the creation of distinctively new forms (Delacruz 2009:88). Global art helps in understanding hybridity and complexity of the world today, and it is in the images of art that characters of complex connectivity are portrayed (Delacruz 2009: 89). The concept globalisation describes the intermixing and interpenetration of global and local phenomena, which involve the imposition of the global onto the local and/or local adaptations of global trends and entities (Delacruz et al. 2009: 89).

Globalisation has led to a transformation in the education system in that learners at some schools are now able to digitally communicate, share knowledge, and create new knowledge using technological tools such as the internet. The potential to make knowledge accessible to all is a major focal point in the South African governments' embrace of the concept of globalisation in school environments (White Paper on South African eEducation, 2006). Giddens (1999:27) comments on how globalisation implies that we all now live in one world and belong to one global electronic economy regardless of which country we live in. Therefore, the impression is that time and space are compressed and there is an intensification of the world as a whole through globalisation (Moloi 2009:280). Learners no longer need to experience the world through physical interaction. They are granted the privilege of connecting virtually to many parts of the world through digital technology at the press of a button. By using their iPads, tablets, laptops and cell phones, learners can explore myriad sources of available knowledge that exist in the global sphere.

### **2.1.1. Negative impact of globalisation**

According to Elias Ngugi (2007:155), globalisation includes social, political, environmental and cultural dimensions and implications more than only economic repercussions. Globalisation is said to have contributed to the wide spread of inequalities in power relations, resources and technology within countries (rural and urban areas) and between countries, with most of the developing countries becoming more and more marginalised (Ngugi 2007:164). Ngugi further states that "the globalisation process is uneven, unbalanced and skewed in favour of developed countries" (2007:164). Indigenous knowledge and cultures are slowly being neglected and left to fade in the history books. The importance of face-to-face communication is

diminishing, which means that the younger generation lacks the communication skills that form the basic human level of interaction.

A term that is often used together with the term globalisation is neoliberalism. Neoliberalism works as a political system. In this political system there is formal democracy; citizens, however, do not participate meaningfully in decision making and remain mere spectators (Ross & Gibson 2006:3). This affirms the idea that schools produce and propagate knowledge that serves as a silencing agent (Fischman, McLaren, Sunkler & Lankshear 2005:220). In other words, the schooling system plays a major role in equipping students for the workplace as well for as coping in the technologically progressing world. The curriculum develops a system that dictates the type of knowledge the students receive and the type of outcomes required to be acceptable in the modern world. Knowledge, within the neoliberal structure is fragmented and instrumentalised due to the process of scientism. Scientism refers to power and authority bestowed on intellectual work generated by specialists through using the education system to perpetuate the cultural assumptions or ideology of the dominant class (Fischman et al. 2005:218). Tomlinson (Held 1999:269) proposes that globalisation has been associated with the destruction of cultural identities and has played a role in accelerating a standardised westernised consumer culture, but this appears to be a pessimistic view of globalisation. Globalisation is viewed as western cultural imperialism, in other words globalisation is a new form of colonisation. However, Tomlinson argues that cultural identity is more a product of globalisation than a victim thereof (Held 1999:269). He further states that globalisation has destroyed diverse cultures and stable localities, has displaced people and brought about a market-driven 'branded' homogenisation of cultural experience (Held 1999:269). This has led to the destruction of the differences between locality-defined cultures that had formed part of the identities of peoples.

### **2.1.2. The impact of globalisation in the art classroom**

Janks (2013:8) comments on how education in a globalised world needs to develop people who are capable of high-level symbolic engagement and who are also creative and critical. He further states that education is meant to prepare students for a world of on-going, unpredictable, and rapid change that requires deep specialised knowledge, broad general knowledge, and the ability to think independently and

imaginatively (Janks 2013:10). It further becomes evident that creativity and adaptability have to be underpinned by enhanced skills and values that embrace difference along with responsibility for others and the planet. Therefore it is quite important for the art educator to utilise digital technology in the art classroom in enhancing artworks that have been created with traditional media. This allows people to contextualise the art created in the type of world in which it is created. As with Pop Art, the art created during that movement aimed to represent the advancements of the world and changes thereof. It may hence be a well-received move to allow learners to make use of the digital devices and applications they use on a daily basis to advance their artmaking process. The artworks produced would consequently form a narrative of the technological advancements that the learners are experiencing in their daily lives and the ways in which it helps to enhance their daily livelihoods in the communities in which they reside.

## **2.2. Global citizenship**

McDougall (2005:3) defines global citizenship as a moral disposition which guides individuals' understanding of themselves as members of communities, on both local and global levels, and their responsibility to these communities. She furthermore places emphasis on how global citizenship allows for full human potential to be realised and materialised through one's participation, either on a local or an international level (McDougall 2005:3). Global citizenship redefines political communities, boundaries and commitments between the state and the citizens locally, nationally and globally through the integration of the concept termed cosmopolitanism. The processes of globalisation increase interdependence among individuals, which means that no individual can remain completely isolated within a single nation with national borders (Osler & Starkey 2003:245). Global citizenship increases reflexivity (self-awareness) in that it transforms our understanding of ourselves in relation to a global 'significant' other (Adams, Bell & Griffin 2007:128).

According to McDougall (2005:274), the positive aspects of moral global citizenship are the following: Firstly, individuals are able to gain awareness of international affairs, and they develop an interest in learning about other cultures. Secondly, the meaningful interaction with persons from diverse international cultures leads to social networks, which involve social capital on an international level. Thirdly, a sense of

belonging in multiple communities, including a global one is generated. Fourthly, there is a recognition that one's actions can impact others on both local and global levels, which therefore implies that one has an obligation to make a positive contribution to one's society. Lastly, one makes contributions to the local and global community. An individual who embraces sensitivity to global citizenship reflects evident traits in a broader identity of self, an open-minded and tolerant attitude, and an ability to address the pressing issues of a globalising world (McDougall 2005:274).

Global citizenship is relevant to this study because the learners will be using digital devices to access related images for depicting their identities. The simple act of connecting to a broader system of knowledge through internet interactions will enable the learners to become part of the global community, and form their own identities through the usage of digital technology. According to Johnson and Morris (2010:78), forms of critical citizenship are promoted through the schooling system to ensure that there is an obedient population as well as to ensure that citizens are creative and critical. This strengthens the idea of the workforce produced by the schooling system being more innovative, independent, creative and reflective (Johnson & Morris 2010:78). Moreover, 'critical thinking' encompasses critical citizenship as it is often suggests that the type of individuals that will be school leavers will be explorative, developmental, evaluative, and will be able to make independent choices. As an educator, I encouraged the participants to explore digital technology and traditional mediums, make independent choices that best fit their ideas of personal identity in the images chosen and evaluate whether those images work or not.

### **2.3. Art Education**

Art education (painting, sculpture, literature, drama, music and dance) can serve different purposes within society. The primary function of art is "to provide enjoyment" and that it can function as a source of pleasure (Torres & Kamhi [s.a.]:8). Art may play a wider social role, for instance in creating employment; securing the value of financial investments; or uplifting poverty stricken communities through art projects within community art centres. Rajagopal states that "art is marked by its cultural and national origins" (Campbell & Martin 2006:137). Art allows individuals to develop a strong sense of identity. Involvement in art practices may enable individuals to question their own social status, language, race, ethnicity, values, beliefs, behaviour and spiritual



orientation (Taylor 1999:232). Individuals also are able to learn more about themselves and the contexts in which they find themselves. Furthermore, art can be understood through the psychoanalytical perspective of experiential learning whereby the mental processes within the conscious and the unconscious realms influence the art that is produced by individuals (Fenwick 2001: 28).

Art making and art education can contribute to a homogenised and consumer-driven visual culture through the embracing of contemporary art. Contemporary art allows for the accelerated hybridisation that is the creative force behind monumental cultural innovations of this age (Delacruz 2000:89). Moreover, art responds to globalisation in three ways: in the content of the work, in the artist's use of imagery and in the visual conceptual strategies. Firstly, through the content of the work the artist is able to address and interpret critical issues and realities generated by global change and connectivity. The accelerated change is depicted through primary themes such as connectivity, polarisation (local, global, traditional or new) (Delacruz 2000:89). Secondly, issues of globalisation are addressed in the artist's use of imagery such as familiar icons of international commerce, politics or entertainment that derive from a common global visual culture. Thirdly, artists use visual conceptual strategies to convey their ideas and generate surprise and insight (Delacruz 2000:89). These strategies incorporate many of the characteristics of globalisation by including ironic juxtaposition, collage, layering, re-contextualising and repackaging (hybridisation). Through art education, the grade 6 learners were able to understand that there exists a blending of art forms and ideas in art, and in crossing borders through combining art and popular visual culture.

### **2.3.1. Revised National Curriculum Statement Grade R-9**

It was important to consider the Revised National Curriculum Statement for Grades R to Grade 9 (which now is the CAPS curriculum) when conducting a case study within an educational institution such as a preparatory school. This was because South African schools form their curriculum policies around the Revised National Curriculum Statement structure. It guides and outlines the important directives for curriculum delivery within the South African framework for learners and educators. The following points have been taken directly from the South African Revised National Curriculum Statement for Grades R-9 (schools). It has listed the following critical outcomes that

envisage learners who will be able to: identify and solve problems and make decisions using critical and creative thinking; work effectively with others as members of a team, group, organisation and community; organise and manage themselves and their activities responsibly and effectively; collect, analyse, organise and critically evaluate information; communicate effectively using visual, symbolic and/or language skills in various modes; use science and technology effectively and critically showing responsibility towards the environment and the health of others; and, lastly, demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation. The developmental outcomes envisage learners who are also able to: reflect on and explore a variety of strategies to learn more effectively; participate as responsible citizens in the life of local, national, and global communities; be culturally and aesthetically sensitive across a range of social contexts; explore education and career opportunities; and to develop entrepreneurial opportunities.

The policy for teaching and learning of the private school in which the research study was conducted embraces the following critical outcomes as stipulated in the Curriculum and Assessment Policy Statements Grades R-12: to develop learners who can identify and solve problems and make decisions using critical and creative thinking; work effectively as individuals and with others as members of a team; learners who can organise and manage themselves and their activities responsibly and effectively; learners who can collect, analyse, synthesise, organise and critically evaluate information; learners who can communicate effectively using visual, symbolic and/or language skills in various modes; learners who use science and technology effectively; learners who develop a sense of responsibility towards the environment and the health of others; learners who demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation; and lastly, learners who, as global citizens, are able to act locally and think globally.

Every South African school, whether private or public, should engage with the listed expectations in order to adhere to the country's educational aims and objectives. It is also evident that learners in South African schools are encouraged to use technology positively and responsibly so as to assist in developing learners who have empathy

with others and their environment. The Revised National Curriculum Statement demonstrates the importance of instilling principles of social justice, respect for the environment and human rights as defined in the Constitution.

## **2.4. Decolonisation**

Decolonisation is an important part of this case study because I, as the researcher, within this research, intended to reimagine and rearticulate power, change and knowledge through multiple methodologies, practices, values and beliefs within art practice. Through the use of the iPad and MAC technology during the artmaking process, I sought to integrate the digital with the traditional in order to discover opinions, beliefs and ideologies concerning what art is understood as and how art is made in light of the digital age in which we exist.

Decolonisation is a term that is used when there is a contest between knowledge systems and experiences brought about by former colonies (Hadebe 2017:6). Decolonisation produces diversity and multiple ways of understanding, perceiving and believing (Hadebe 2017:6). For decolonisation to occur, invisible colonial powers that exist through cultural, political, sexual and economic oppression, and exploitation of subordinate racialised ethnic groups by dominant racial ethnic groups should be challenged and exposed (Hadebe 2017:7). Learning institutions should not merely be dictators of the proposed curriculum, but be places in which new knowledge is created by those that inhabit those institutions. The knowledge constructs should be relevant to the context of the people within the institution and country. Contemporary ideologies from superpowers such as America and the UK should not be easily accepted by the occupants of third world countries such as in Africa. Knowledge should be appropriate to the realities of the people within the countries in which it exists. Hadebe (2017:7) reiterates the words of Mbembe, stating that “by pluriversity, many understand a process of knowledge production that is open to epistemic diversity. It is a process that does not necessarily abandon the notion of universal knowledge for humanity, but which embraces it via a horizontal strategy of openness to dialogue among different epistemic traditions.” What is taught in the classroom should be relevant to the context of the learners and be “Africanised” according to Mbembe. The word ‘Africanised’ is the opposite of ‘Westernised’ because it opposes the notion of Eurocentric ideologies and the Western way of knowledge production being perceived as the only truth

(Mbembe 2016:32). Through decolonisation, learners are introduced to specific ways of meaning-making, through a shift from perceiving the curriculum as a regurgitation of knowledge to rather viewing it as a co-constructed set of understandings (Council on Higher Education 2017:5). This suggests that learners are not passive recipients of knowledge only, but are responsible agents of their own learning (Council on Higher Education 2017:5).

In order to decolonise the art education system in South Africa, learners should have access to digital technology at least within their school environments. Sean McCollum (2011:52) emphasises that for schools to incorporate technology as part of their curriculum practices, there is a requirement for useful software, reliable and speedy internet access, extensive teacher training programmes, and effective integration of transformative outcomes. The disparity of digital technology resources between low-income, rural schools as compared to middle and upper-class, private schools clearly exists in the South African context. This inequality is said to disadvantage poor communities who cannot afford the luxury of having cellular phones, computers, iPads or being connected to unlimited Wi-Fi during school hours in their classrooms. The government has strategised to provide Wi-Fi connectivity and cyber labs in rural schools. This is guided by the emphasis on the fourth industrial revolution being embraced in order to improve academic performance in rural schools thus empowering the rural communities in overcoming poverty, unemployment and inequalities brought about by the possible “digital divides” that exist.

## **2.5. Collage**

Exploring collage served as the basis of the art project brief given to the learners. Chilton and Scotti (2014:163) describe collages as visual art created by selecting magazine images, textured papers, or ephemera; cutting or altering these elements; and arranging and attaching them to a support such as paper or cardboard. Collages combine different visual elements on one surface and this aesthetic device in postmodern art brings about transformation in the visual art making space. By bits and pieces of a variety of materials, the learner is able to form new images and shapes. This juxtaposition of different visual and textual elements is said to be a freeing process wherein new ideas are discovered (Chilton & Scotti 2014:163). Using the method of collage to create an artwork enables the learner to select a variety of images

that create new meaning depending on their placement on the paper. Following this, the learners use their iPads to enhance their artworks by means of the editing features of their devices. Using the iPad as part of making collage artworks brings a new dimension and collage-like element to the artwork due to the juxtapositioning of digital technology in the traditional method of making a collage. The exploratory nature of the research study allowed the learners to plan, query, and critically assess the selection of images and placement thereof, the meanings behind each image, and the editing of features intended to be used.

The collage project was unconventional and flexible and allowed the grade 6 learners much room for the exploration of the medium. Collage decolonises the conservative expectations of an artwork, which in many forms should be presented as perfect and highly organised. The learners could apply critical citizenship in grappling with notions of identity formation and context within their artwork. Words from newspapers pasted in the background of the collages, e.g. 'fun', 'amazing', represented the type of characters portrayed. Faces presented a multimedia spectrum of images and media to portrayed their interests and likes, e.g. food, bikes, jewellery, gadgets. The project involved introspection of external things that formed their identities. In the further step of integrating digital technology into the project, the learners could practice their global citizenship rights by exploring the internet for images of their choice. As children from privileged contexts and backgrounds who frequently travel abroad for holidays and competitions, the access to the internet was relevant with regard to the construction of collages depicting identity formation.

## **2.6. Praxis**

According to Paulo Freire, praxis is human activity that consists of action and reflection upon the world (Allsup 2003:158). Freire believed praxis to be transformational, a way by which to humanise the world through true praxis. He further defined praxis as doing and thinking that is understood through normative praxis (reflective doing) and true praxis (reflective ethical doing) (Allsup 2003:162). Torres and Mercado define praxis as "an ongoing process in which reflection, including theoretical analysis, enlightens action, and in turn the transformed action changes our understanding of the object of our reflection" (2004:60). Therefore, praxis can be simply interpreted as the process of putting theory or something one has learned into action, practice or experimentation.

Praxis is an activity that is informed by theory, "whether formal or informal, tacit or expressed" (Adams et al., 1998:2). In the paper *Practice vs Praxis: Modelling Practitioner-based Research* (Steward 2003:4), Dr Robyn Steward views praxis as a process that involves the critical and the complex combination of theory and practice. When practice is applied in light of theory within an educational context, new knowledge can be formed and developed, and old knowledge can be challenged while probing further research to be conducted.

Culture also plays a role in how individuals define and understand their reality, and culture can be linked to the process of learning (Allsup 2003:159). Our culture plays an integral role in our understanding of our world and how we act upon it, hence, praxis was once defined as "a form of cultural doing" by disparate philosophers such as Aristotle, Marx and Engels, Sartre, Marshall Sahlins, Pierre Bourdieu and David Elliot (Allsup 2003:157). Our decision to act or not to act upon our world is influenced by cultural and political factors such as political events, and educational contexts. More often than not, "a kind of aesthetic detachment" is required when choosing to act upon the world (Allsup 2003:159), which means that an individual's actions are likely to be objective rather than subjective due to the cultural and educational contexts in which they find themselves.

In this case study, I, as the educator, encouraged the learners to engage with theories through the process of praxis. They were given the project of integrating digital technology with traditional media to allow them to form their own constructs of the world based on the theories that are found in their textbooks, notes, etc. The provided theories formed a basis on which learners could construct knowledge. They were able to make better sense of the theories once they applied them practically through activities that inspired them to reflect on their own world, cultural background and previous knowledge. The concept of praxis was relevant to this study because the learners were able to experiment, create new possibilities for themselves and form new knowledge, and engage in research through the notion of experiential learning. The learners were thus able to contribute to the creation of new artistic knowledge due to their critical reasoning around different concepts, theories and ideas.

## 2.7. Hidden Curriculum

Gordon (1988:425) defines the hidden curriculum as the unintended messages transmitted by the physical and social structure of the school, and by the teaching process itself. It refers to the unspoken or implicit values, behaviours, and norms that exist in the educational setting (Alsubaie 2015:125). The hidden curriculum is also said to be the elements of socialisation that take place in school, but are not part of the formal curricular content (Margolis [S.a.]: [n. pag]). Semper and Blasco (2018: [n.pag]) define the hidden curriculum as what is implicit and embedded in educational experiences in contrast with formal statements about curricula and the surface features of educational interaction. In simpler terms, the hidden curriculum is what children learn without teachers' intending or realising it (Zorec & Došler 2015: 105). When assumptions and expectations, for example, the relationship between teachers and students; disciplinary regime; assessment system; and various sub-cultures that exist, are not formally communicated, established or conveyed in the learning environment, it results in the formation of the hidden curriculum (Alsubaie 2015:125). The institution's hidden curriculum is directly connected to the social structure, cultural patterns and rules in a given society, and it forms part of the symbolic framework of the social order (Zorec & Došler 2015:105). Alsubaie (2015:125) mentions Jerald having noted that the hidden curriculum is an implicit curriculum that expresses and represents attitudes, knowledge, and behaviours, which are conveyed or communicated without conscious intent; it is conveyed indirectly by words and actions that are part of the life of everyone in a society. Members of a society can rediscover what is considered sacred and valuable in that society by engaging in the hidden curriculum (Gordon 1988:426). The hidden curriculum is a concept that was central to this study because learners encountered different challenges and discovered new knowledge as they explored integrating technology in their art-making processes. Whether the experiences were positive or negative, each learner's individual experience was unique to them and they were able to form different understandings of the uses of digital technology in art by being part of this case study.

Richard Edwards and Patrick Carmichael (2012: 577) refer to three different aspects of the notion of the hidden curriculum, namely: (1) a kind of indoctrination that attempts to maintain social privilege; (2) the subtle effects of the setting in which formal education occurs; (3) the unstated rules for necessary completion of formal education



studies. These concepts exist within the hidden curriculum and technology. There are certain expectations and rules that ground the use of technology. Specific outcomes are also expected, together with peer expectations of the mastery of the technology., An expectation of perfection exists within the sphere of technology. There is a constant appeal to achieve perfection, which is mainly visible in gender stereotyping. Males should be projected in a certain way to be viewed as successful, influential and attractive. They should have muscles in the right places and the right upper and lower body with the right weight. Males are mainly depicted as successful businessmen, mathematicians and scientists. Females should also gain mass appeal through perfect make-up, the right figure and other bodily features to be perceived as perfect. The element of perfectionism is strong in females to facilitate attracting the most attractive male personality. This being said, the case study revealed the girl learners as very critical of themselves throughout the process of assembling the collage as it dealt with the topic of identity. As soon as they heard that they had to replace the eye from an image with a drawn eye, and other features mainly involving their faces, they resisted changing the original photocopied image which was the basis of their artwork. What mainly concerned them was not appearing perfect. There was a general decrease in excitement when they had to rearrange some sections of their facial features. However, when the option of working with digital devices was presented, there was a sigh of relief as they could revive the “prettiness” or “perfect idea” of themselves as they were concerned about what other people would say when they saw the final product of the collage. It became clear that image, for them, was everything and their peers’ perception of them mattered beyond anything else. Being able to manipulate things to perfection in order to appeal to people is one of the features of the hidden curriculum in technology.

## **2.8 Synthesis**

The qualitative research that was conducted was grounded on theoretical frameworks such as globalisation, global citizenship, art education, decolonisation, praxis and the hidden curriculum. These theoretical frameworks allowed the researcher to question some perspectives of the authors who are mentioned and to draw valuable summative conclusions from an informed stance. The context of the study is explored In the following chapter.



## CHAPTER 3: CONTEXTUALISING THE STUDY

### Introduction

The context of the research study and its relevance to the local and global framework is discussed in this chapter. The use of iPads in the Art classroom is prevalent in other countries and some visual arts practitioners have discovered innovative ways to incorporate it in their classrooms. These are explored in this chapter.

### 3.1. Context of the study

The study was relevant for this particular context as the primary school in which it was conducted is an exclusive private school which could be viewed as an environment for an upper class community. Learners in the school are allowed to use iPads in their classrooms to assist their learning process. The incorporation of iPads in the classroom forms part of education technology which, according to Aljami and Al-Hadiah (2017:1), includes all means and modern devices, such as computers and mobile devices such as the iPad, and can be used within educational institutions in the learning process. The particular school aims to go paperless in the near future. This refers to the move away from using physical materials such as paper, books, dictionaries and so forth in the classroom. According to Jeremy Fei Wang and Marietta College (2010:2) the paperless classroom pedagogical approach offers a wide range of benefits to students. These benefits include the following: an anytime and anywhere learning environment where the instructor's assistance is only a couple of clicks away; students' questions are answered promptly; availability of a set of convenient tools to manage course materials and team projects; strong knowledge management (KM) capabilities; a transition to active and hands-on learning; a learning community in which students always feel connected; and useful online skill sets that will prepare them for the digital future (Wang & College 2010:2). As an art educator in this technologically advanced school that uses only Apple digital devices, I sought to implement the integration of digital technology with traditional mediums in order to connect creative technology and cutting-edge pedagogical approaches with the diverse learners in my classroom. I explored the approach of Cathy Hunt (Distinguished Educators 2013), a visual arts teacher based in Australia who is described as an advocate for the creative integration of technology in education and has developed ground-breaking programmes that combine practical, tactile and collaborative ways of working with mobile devices for learners around the world,

particularly in the Visual Arts classroom. Cathy Hunt integrates technology as part of meaningful visual arts education without getting rid of the traditional techniques of art making. She experiments with practices and pedagogies for digital devices by making her learners use their devices to capture things such as shadows, tones or textures with their iPads and then using the traditional mediums such as paint and charcoal to rework spaces and surfaces within the originally captured images. She has experimented with layering, light, photography, videos, tracing and so forth. Cathy has ensured that the digital and traditional are explored to their fullest extent so as to create a vibrant and fun art space in the art classroom.

Art educators seldom use the iPad or other digital devices as tools to make art in their art classrooms, particularly in primary school environments. According to the article '*Digital Technology in the Visual Arts Classroom: An [un]Easy Partnership*' by Judith Wilks, Alexandra Cutcher and Susan Wilks (2012:55), visual art educators struggle to achieve decent teaching and learning activities with using digital technology and its techniques efficiently. Even though visual art and digital technology have common characteristics as modes of communication, the difficulty of creating art with a purpose for the internet still exists in this digital age (Wilks et al. 2012:55). Mediums used to make art, including those associated with digital technologies, consequently are said to carry their own messages about culture, beliefs and values, conventions and histories (Wilks et al. 2012:55). This then is why art teachers should derive ways in which digital technologies can be used meaningfully in the art process to guide students in using technology as a powerful means of communicating ideas besides allowing learners to use their iPads or mobile devices to search for references when embarking on a drawing or painting project in the art classroom. The adoption of digital technology in the art classroom would enhance decolonisation of the art space in that avant-garde methods of making art are embraced together with the traditional methods and materials of the art masters of the renaissance period. Decolonisation formed a critical part of this study as the learners had to broaden their indoctrinated ideologies of art into that of collaborative, versatile and contemporary ideas.

### **3.2. Local and global context**

This all-girls primary school uses the modern approach to education called STEAM. This approach integrates Science, Technology, Engineering, Art and Mathematics in

order to guide learners into inquiry, critical thinking, innovation and dialogue. Planning meetings between the teachers of subjects under the banner of STEAM are held to address the same topics in all the subjects so as to ground the learning process. The learners are able to experience the topics in all forms in their subjects and they are able to develop in-depth knowledge of the given topic. As an art educator, my role is to collaborate with the other subject teachers through creating art projects that lead learners to enquire and explore different materials, ideas and art techniques. In STEAM, a topic for the term would be “State of Matter and Pollution”. As the school aims to become paperless in the coming years, the notion of art in the school might evolve into the digital space where exhibitions could be held in digital spaces rather than the physical space. This would allow a larger audience to have access to the learners’ artworks, nationally and internationally. The theoretical frameworks of globalisation, global citizenship, decolonisation, art education and the hidden curriculum would be present in the way in which the Art curriculum operates in this modernised school.

Aljami and Al-Hadiah (2017:2) state that using digital technology in the classroom provides the following benefits: educational vitality which refers to technology providing students with an interactive learning environment to encourage integration into the educational process through adapting the read material to live scenes through images and movies; increasing the student achievement which occurs during the learning process as it suggests that students learn better when using audible and visual resources; development in high levels in the thinking skills which refers to software specially designed to develop student skills in collecting information, organising, analysing and using this in problem solving; motivation which is linked to education technology contributing in making the process of learning an impressive process for students and teachers together; and lastly, development of the skill of cooperation and working in a group.

The learners in this primary school were granted liberty to explore different apps on their iPads in the art classroom while making artworks. Using the iPad device in the art classroom was beneficial as learners were able to become consumers and producers of knowledge by using 21<sup>st</sup>-century literacies to display their diverse perspectives in order to promote academic success (Price-Dennis, Holmes & Smith

2015:196). Using the iPad in the art classroom enhances the art making process as learners are able to integrate traditional art making tools with digital tools. This then develops the learners' proficiency and fluency with tools of technology; builds cross-cultural connections and relationships to pose and solve problems collaboratively and strengthen independent thought; design and share information for global communities to meet various purposes; manage, analyse and synthesise a multitude of simultaneous information; create, critique, analyse and evaluate multimedia texts; and attend to ethical responsibilities required by these complex environments (Price-Dennis et al. 2015:196). This further encourages curriculum developers in the 21<sup>st</sup> century to continuously reimagine and revise the curriculum as a tool for innovative teaching. By using digital technology in learning environments, the promotion of critical thinking, collaboration, and other expansive ways of conceptualising and making sense of the world is encouraged.

### **3.3. iPads in classrooms**

There are downsides to using iPads in the classroom in that learners can get distracted by the access to social media applications such as Facebook, Twitter and Instagram, and instead of focusing on their work could end up on WhatsApp or Facebook Messenger during class time. Learners could end up playing games all day and be vulnerable to cyber bullying and other inappropriate content. While being able to access unlimited Wi-Fi at schools, learners might abuse it for downloading non-educational content from YouTube and other internet sites. In the school in which the research study was done, the school put in place security measures to minimise the abuse of the internet during classroom time and school hours. During the class periods, teachers are able to monitor the sites that the learners visit with the Classroom Application. With the Classroom App for iPads, teachers are able to view, remotely control, and transfer any files to their students. Teachers are able to create a platform with Classroom App that enables all the students to log in and collaborate whilst also being able to view the applications the students visit during a lesson. Teachers are able to limit access to other websites for their learners, thus helping with managing, controlling and monitoring the usage of the iPad during their lessons.

### **3.4 Synthesis**

The collaborative nature of the STEAM curriculum used in this girls' primary school encouraged the integration of digital technology within the art classroom. The relevance of the global and local context of the case study presented varied benefits and developments for young school learners in the 21<sup>st</sup>-century art classroom. The next chapter delves into the research methodology used in the study.

## **CHAPTER 4: METHODOLOGY**

### **Introduction**

This research study used both qualitative and quantitative data collection tools. The mixed methods approach used in this study allowed the researcher to collect data that could be calculated (quantity) and data which explained participants' views (qualitative). Research methods are the data collection techniques that refer to specific procedures appropriate for the research problems and objectives (Križman 2011:52). The research paradigm is interpretive with positivist ontology. A constructivist approach to knowledge is assumed. Constructivism links to praxis that is based on ones' own reflection upon the world in which one exists. According to Mariana Canepescu (2009:177), the interpretive paradigm is informed by how different individuals form multi-faceted perspectives of knowledge based on their emotional and cognitive structures and prior existing knowledge. During and after the practical work learners involved in this research formed contra-opinions on the same given task due to their personal interpretations of their experiences based on their individual beliefs and values. I collected rich data which led me to understand that the findings were complex due to the differences that exist among learners. The desired complex outcomes refer back to the main research question and the sub-questions which guided this qualitative study. The methodology used in the study ensured that these questions were answered during the entire process of data collection.

According to Marshall and Rossman (2016:20), arts-based or arts-informed research indicates that artistic processes or artistic pieces are incorporated in the development, data collection, and/or analysis of the project, or that they are being used to represent findings. As with the nature of arts-based and art-informed research, this study considered how drawing, painting, etching and media of the learners' choice for make a collage were created on the basis of the given theme, and thereafter how the learners used digital software to enhance their collages. The final products were to be printed and presented as artworks.

#### **4.1. Design of the study**

This case study was undertaken during the second term, considering that it was the

longest term of the three terms of the school. In the second term, the learners are more settled in the school environment and are relatively positive about their academic performance and goals. The majority of the research was conducted within the art classroom and the digital devices used were mainly learners' personal iPads. The nature of this research was experiential as learners were to independently use the editing features on their iPads and MACs after having made their collages using traditional mediums.

#### **4.2. Data collection techniques and sample selection**

Data collection is a primary step towards analysis. According to Ramesh Singh (2017:19), the data collection process should not comprise any shortcuts as this is the critical process of the research study. Data collection informs the findings of the study and allows the researcher to form concrete conclusions from the research study. Different methods were used when collecting data as advantages and disadvantages of some data collection techniques may limit or expand the amount of data collected. During this case study, I used the following data collection methods: open-ended questionnaires, interviews and class observations. I used a sample of 28 young female learners, from the three grade 6 classes in the girls' primary school that is part of the seven schools in the college. The diversity within these classrooms was balanced with different races being represented: black, white and Indian. The learners were aged 11 or 12.

##### **4.2.1. Open-ended questionnaires**

Züll (2016:1) defines open-ended questionnaires as consisting of questions that require participants to formulate a response in their own words and to express it verbally or in writing. In open-ended questionnaires participants are not steered in a particular direction by predefined response categories (Züll 2016:1). Couper and Singer (2017:117) state that the seven main uses for methodological open-ended questionnaires are: understanding reasons for reluctance or refusal; determining the range of options to be used in closed-ended questions; evaluating how well questions work; testing methodological theories and hypotheses; checking for errors; encouraging more truthful answers; and providing an opportunity for feedback. The ideologies of Reja, Manfreda, Hlebec and Vehovar (2003:159) were deemed suitable in the use of open-ended questionnaires as the responses that learners could give

would be spontaneous. The lack of bias in the manner the questions in the questionnaires were worded omitted suggesting responses to the participants. The questionnaires were presented in hardcopy to be filled in by the learners after the completion of their projects. The questionnaires were then kept safe by the researcher for data analysis. This data collection method was chosen as it was both quantitative and qualitative in approach and enabled me to count how many participants chose yes or no answers, and to get their personal opinions and views.

#### **4.2.2. In-depth interviews and group discussions**

In-depth interviewing is a qualitative research technique that involves conducting intensive individual interviews with a small number of participants to explore their perspectives on a particular idea, programme, or situation. Ozdemir and Koc (2012: 116) highlight that the primary advantage of in-depth interviews is that they provide much more detailed information than what is available through the other data collection methods. Conducting in-depth interviews may also provide a more relaxed atmosphere in which to collect information. The advantages of interviews are that the data is quicker to collect and follow-up and clarification of responses are immediate (Marshall 2016:150). The participants felt more comfortable having a conversation with me as their art teacher about the project as opposed to filling out long questions in a survey. Ultimately, doing in-depth interviews with my learners helped me to collect more detailed information about their thoughts and perspectives in a relaxed atmosphere where they felt safe and free to express their opinions without feeling judged or exposed to any harm. During the interviews it was also easier to see through body language how the learners truly felt about a certain issue. The interviews were conducted in the art classroom at the school during school hours. This was so that they could still relate the experience of the project as part of their normal school routine. I hosted a group discussion of all the participants, as well as individual interviews with selected participants. The group discussion consisted of 23 Grade 6 learners and was conducted in the computer laboratory. This lasted for approximately 15 minutes. I managed to interview two learners in my art room office, which was a safe space. The interviews lasted for 10 minutes each. The other four participants were not available on the dates of the interviews. They were either ill or absent from school. A voice recorder was used to capture the interviews and no videos were recorded during the interviews. This was to ensure that anonymity was preserved and



that the learners felt secure.

#### **4.2.3. Classroom observations**

Shing ([s.a.]:28) defines classroom observations as systematic inquiry with the goal of informing practice in a particular situation. During the classroom observations, I, as a researcher and the teacher of the class, used a checklist to analyse and make additional notes about how the students interacted with each other during the project while using traditional art-making media. I observed the learners' preferred techniques and mediums for creating their collage artworks. The next step was to closely guide the participants in taking pictures of their collages with their iPads. During a different lesson, we had to change the environment and move from the art classroom to the computer lab that had MAC computers. Once settled in the computer lab, all the learners present had to Airdrop their images from their iPads to the MACs. During this time their behaviours and attitudes were carefully observed and notes were taken. Some learners found this part of the art-making process difficult, confusing or even challenging. Their lack of ability to experiment independently when using the MAC computers hindered some of them from embracing this task, hence some learners opted to Airdrop their images back to their iPads as they were more familiar with working on the device than on the MAC. No videos were taken during class observations.

#### **4.2.4. Capturing data and ethical considerations**

The classroom observations occurred in the art classroom and the computer laboratory. During the classroom observations a checklist was used to note down the different learner attitudes, progressions and behaviours throughout the case study. A section for making extra notes and elaborate on certain points was included. The group discussions were conducted in the computer laboratory after using the digital technology for enhancing the artworks. The individual interviews were conducted in my office in the art classroom. During the group discussion and interviews, I recorded the learners' answers using the iPad recorder application. These recordings were then saved on a flash drive which was stored in a secure cabinet in my office. Only I had access to this cabinet. I then sent the recordings to my personal email address, to which only I as the researcher have the passwords. All these documents will be

deleted five years after the completion of the study.

Before the commencement of the research study, the participants signed assent forms, while their parents also signed the consent forms granting permission for their children to take part in the study. All 28 Grade 6 learners could take part in the study and were made aware in the consent/assent forms that they could withdraw from the study at any time if they wanted to. They understood that their identities would not be disclosed to anyone, and all the information would be kept confidential. Codes such as L1, L2 or L3 were to be used to protect the participants' identities. Due to the nature of the study in being part of lesson time during school hours, there was no need to consult a psychologist.

Ethical clearance to conduct the study was granted by the Ethics Committee of the Stellenbosch University. The Head and the Rector of the school also granted permission for me to conduct the research study on the school premises during lesson time. This was communicated through email and an official letter from the Head of School.

#### **4.2.5. Data analysis**

The data were analysed through qualitative and quantitative processes. The yes and no questionnaires were grouped and tabulated accordingly. Then each questionnaire providing quantitative data was noted down as its own interpretive variable. Every participant presented her own, personal view after having responded yes or no, therefore those responses were collected as data. Empirical data were also collected by means of a classroom observation checklist and were analysed qualitatively and quantitatively depending on the yes or no ticks presented by the researcher.

#### **4.2.6. Validity and trustworthiness**

The researcher remained objective and neutral during the entire case study as forming a bias would affect the nature of the findings within the research study. The case study was not based on assumptions, but was reported on the basis of thorough, rigorous and accurate representations of data collected from the Grade 6 participants in the independent school. There was accurate documentation of the interviews, group

discussions, open-ended questionnaires and classroom observations. Some images of the artwork produced are presented and included in the section containing the analysis of the data and in the discussion chapter. The data comprise a valid representation of the case study conducted by the researcher at the school in which she is an art teacher.

### **4.3. Synthesis**

This chapter has covered the methodology that was used in the case study. The methods involved both qualitative and quantitative data collection tools. The constructivist paradigm informed the research study. Data collection techniques included open-ended questionnaires, group discussions and individual interviews, as well as classroom observations. The manner of capturing data and ethical considerations ensured the validity and trustworthiness of the study. In the next chapter, the data that was collected during the case study, including the themes and subthemes that arose during the study, will be discussed in detail.

## **CHAPTER 5: DATA AND DISCUSSION**

### **Introduction**

The main aim of this research study was to examine how integrating digital technology with traditional media impacts the process of art making in the art classroom. The main research question was posed as ‘how does using digital technology with traditional media affect the process of art making in the art classroom?’ With the aim of answering the main question and the sub-questions, the main themes that are discussed involve the learners’ attitudes towards digital technology in art production; identity construction; and the role of digital technology in the primary school art curriculum. Using the data collected from the open-ended questionnaires, focus group interviews and classroom observations, the themes led to a comprehensive, detailed analysis of the data presented during the study.

### **5.1. The learners’ attitudes to digital technology in art production**

The first theme covers attitudes to digital technology in art production that were noted during observations, group discussions and open-ended questionnaires. The sub-themes elaborated under this theme are the following: the effects of using digital technology on artwork quality, reported change in art comprehension after employing digital technology to enhance artwork; and the reported usefulness of combining digital technology and traditional media.

#### **5.1.1. The effects of using digital technology on artwork quality**

The majority of the participants indicated that digital technology had a positive effect on their final art product. Twenty participants responded ‘yes’ to the question of whether the quality of their work was affected by using digital technology, while three answered ‘no’. Some of the participants stated that the introduction of digital technology improved the beauty of their artworks. The participants’ views were as follows:

L1: “digital technology changed my work and made it look very pretty”

L2: “the brightness and speed increased”

L3: “my work turned out better, making the art more advance and futuristic”

Some participants did not see the value of using digital technology with their artworks. These participants indicated that there were still unhappy about the quality of the final product. The participants' views were as follows:

L4: "some corners of the photos from the internet were sticking out on the collage"

L5: "the artwork still looked messy"

As the researcher, I am of the opinion that the frequent use of technology in this school's classrooms also contributed to the positive views expressed by the learners. The learners in this primary school are privileged to use iPads in most of their other subjects and had previously only used digital devices in the art classroom for referencing and not for manipulating their work. The participants also have teachers trained in the use of Apple technology who specialise in teaching learners and educators. These Apple specialists teach the latest developments and upgrades in Apple digital devices, how to use them optimally and which applications to use for which projects and subjects. The interesting part of this research meant the learners only approached the digital section of the project using prior knowledge learnt during computer laboratory classes. As the researcher, I employed an observer approach in the computer and allowed the participants to assist one another when facing any problems using the Keynote application. It became evident that there was a more relaxed atmosphere in the classroom when the learners shared knowledge among one another. The constructivist pedagogical approach to learning encourages learners to construct their own knowledge based on prior knowledge and experiences; develop their own meaning; and having their learning become more active and social. Through praxis, learners are able to reflect on their own reality and their learning becomes more meaningful to their context. While trying out the different editing features of the digital technology, learners were able to discover what needed to be learned and unlearned. The collaboration of ideas and different ways to better use the application on their digital devices brought about clarity and confidence to most learners while working on their artworks.

The participants who were less versed in using the Macs and the Keynote application were more negative about the end quality of their work. The participants who enjoyed the traditional component of making the collage chose to use little or no digital enhancements in their work. In society, people who are comfortable with

traditional ways of doing things also tend to shun using digital technology. As people differ with regard to their strengths, some find digital devices complicated and not user friendly. Those people mostly require training and refined skill in using digital devices and applications as this does not come naturally. Some participants explained that they were not allowed to spend extensive time using their devices at home as parents did not encourage limitless screen time. Their negative views on digital technology might have stemmed from the parents' negative perceptions of technology as a time waster mostly aimed at entertainment.

It is my view that adults should also be schooled in the relevance of using digital technology as an educational tool with many benefits. Negative and preconceived ideas about technology should be gradually displaced through its usefulness in academic institutions. Educators should receive relevant training in order to guide learners in grasping the variety of features offered by digital devices. It would also be beneficial for art educators to develop additional tasks to be done at home using digital technology. This would help parents in monitoring irrelevant usage of technological devices, and encourage them to find more applications that enhance their children's learning activities outside of the school environment.

#### **5.1.2. Reported change in art comprehension after employing digital technology to enhance artwork**

Many participants indicated that using digital technology to enhance their work changed the way they understood art. Seventeen participants agreed (answering 'yes') that their comprehension of art was different after using digital technology and six responses were 'no.' The following views were recorded:

L6: "Art is made in different ways"

L7: "Art is very confusing"

L8 "I never knew I could use technology in art"

L9: "you can combine all your interests and make your art work exactly how you like it"

It can be noted that the participants who found using digital technology for enhancing their work confusing mostly were those who preferred using only the traditional methods of making art. Those learners who used little or no digital technology for

enhancing their work saw no real need for adding or removing anything during the session in the computer laboratory. Their response to understanding what art is once digital technology was employed brought to light that art educators in the 21<sup>st</sup> century have a pivotal role to play in explaining what art is and that advancements are bound to occur within the field of art.

The positive perspective presented by the majority of the participants demonstrated that they understood that art exists as a complex reflection of the society in which it belongs. By demonstrating their awareness that art can be created in different ways and that you, whether you prefer digital or traditional means, can use both ways to develop an understanding of what art is. It further showed that, due to globalisation, there has been an acceptance of different ideologies, particularly in the spaces in which digital technology can be used. The complexities presented by globalisation may bring about confusion in previously restrained subjects such as art, and it is the art educator's role to clarify the role of digital technology within the classroom. Suzanne and Francis Marchese (1995:434) speak about how "art is just another form of electronic information stored in well-organised databases for further manipulation once it is digitised" This further indicates how art can become confusing to understand once it is in digital format. Anyone can make changes to the original. Furthermore, as noted by Suzanne and Francis Marchese (1995:434), there is a risk that art made with digital devices will be elevated to the mainstream with other media assigned the status of a craft. In the process, learners will have to be educated on what art is, why there is a synthesis of digital and traditional media, and the possible future of art in the global society.

### **5.1.3. The reported usefulness of combining digital technology and traditional media**

Fifteen participants indicated that they found using both digital and traditional media useful, while eight responded 'no' on their questionnaire. The participants provided the following responses when asked about the usefulness of combining digital and traditional media in presenting their work:

L10: "it was helpful, you get to change some things you did not do right with traditional media"

L11: “very useful, there are more options to use on digital, like taking photos from the internet, and enhanced things that I disliked before”

L12: “it was helpful, and lots of fun. It was nice to get different perspectives of making art”

L13: “not useful, we should have only done digital because with digital you can fix mistakes you’ve done”

L14: “I would rather start with digital and only use digital”

The majority of learners found working with digital very useful as many of them struggled to translate their ideas effectively with images from magazines and newspapers when making their collages. The excitement of accessing the internet and all the alterations they could apply to their artworks in the computer laboratory was highly evident. The degree of focus and effort observed when they were in front of the MACs and iPads showed deep interest in the task before them. The majority felt that the project should have been executed only using digital tools. For some, combining the two was not useful. They perceived the traditional process of making the collage limiting and difficult. Many felt that the images in the magazines and newspapers were not the images they would prefer; hence some learners brought images printed from the internet to the art classroom to make their collages. In my opinion as the researcher, combining the two mediums exposed the learners to two methods of creating a collage. As the one participant reported with regard to the fun aspect of using both mediums, the learning of new skills and the unlearning of bad habits, such as rushing or compromising the quality of the work due to limited images of choice was an effective exercise. Learners come to be grounded in the deep processes of artmaking based on the practical application of art theory, resourcefulness and understanding of traditional art mediums, as well as the conceptualisation of ideas.

Chia and Duthie (1994:198) discovered that, for art curricula to incorporate computer-based artworks, students and teachers need to see digital technology as integral to a programme, whether on computers or digital devices, and not as of peripheral status. This means that their view of the device or software should be considered part of bringing the artwork to life and not as existing on its own. It should not exist as an “add-on” but as an extension or stage in the art making process. The teachers’ roles are to determine the most suitable medium for any art work and to understand in which



stage of the artwork the computer is the medium to be used. Art teachers need to extend their view of digital technology devices as tools for creating artwork that present an extension of the potential for experimentation and art production for their students. Chia and Duthie state that “students require opportunities to master a range of techniques and understanding which they can then use and be brought to comprehend, through experience, the possibilities and limitations of the medium”(1994:198).

Many factors affect the learners’ attitudes to digital technology in art production, notably their understanding of art; the outcomes of their artwork after using digital technology; and perceptions on the usefulness of digital technology as an artmaking tool. It is important to note that using digital technology in collage artwork touches on identity constructs of individuals in the global and the South African society, hence the theme of identity construction will be discussed.

The attitudes of the learners to digital technology affected how they understood art, as well as how they perceived the usefulness of using both digital and traditional mediums. The quality of the learners’ artworks after using digital technology was also an indication of how well the learners could manipulate the digital features of the applications on their devices. Through their own experimentation with their digital devices, the learners could further discover their personal strengths and weaknesses. Therefore, the theme of identity construction is explored next.

## **5.2. Identity construction**

Art allows individuals to develop a strong sense of identity. Individuals living in current society view themselves as part of the global community as they have a sense of global citizenship embedded in the existence of digital platforms through connections formed through the internet. Globalisation has meant that the borders that once separated continents and countries are no longer a hindrance for individuals to navigate the global world. Globalisation has meant that social, political and cultural dimensions have been redefined and a global culture has been developed, consequently reshaping how people see and define who they are.

The Cambridge dictionary describes identity as “who a person is, or the qualities of a person or group that make them different from others”. For example, an individual who possesses certain talents such as singing, song-writing and producing artworks has the identity of an artist. Elizabeth Atkinson (2001:308) manages to recognise that identities of “self” allow people to place themselves socially, sexually and academically in the world. A person is able to see himself or herself in others while renegotiating notions of “self” and “self-improvement” as he or she learns from those around them. The research project that took the form of a collage dealt with the subject matter of identity for the Grade 6 girl learners. The learners had to collect images of what makes them who they are, their dreams, likes and interests, and then, rework photocopied photos of themselves into images that best define them.

According to Berry and Candis (2013:45), identity comprises “both visible and invisible domains of the self that influences self-construction. They include but are not limited to ethnicity, skin colour, gender, sexual orientation, nationality and physical intellectual ability.” This definition implies that one is subjected to internal and external identities. By and large, identity encompasses a person’s social status, language, race, ethnicity, values, beliefs, behaviour and spiritual orientation. Identity is heterogeneous, which implies that every learner or educator possesses a unique identity which can affect the classroom environment or the research context. Cultural identity is the most pervasive when it comes to influencing the education and research contexts. Furthermore, cultural identity is defined as “one’s understanding of social status, language, race, ethnicity, values and behaviours that permeate and influence nearly all aspects of our lives” (Berry & Candis 2013:45). All these factors influence the way an individual sees the world and inform their experiences. In the task I had set for the learners, they had to make their identity physically visible through methods of visual art; the making of something unseen, seen through art. Some identities are tangible and intangible.

The subthemes that stemmed from the theme of identity construction which were explored and are discussed are the following: collage made with digital media versus collage with traditional media, feminine ideologies in the digital age and art aesthetics in the digital age.

### 5.2.1. Collage made with digital media versus collage with traditional media

According to Smigel and McDonald (2011:11), the principles of collage revolve around the idea of the *objet trouvé* (or “found object”)—a pre-existing object, image, sound, or word that has been detached from its original context. The artist places the object into a new context, often juxtaposing it with other found objects, to clarify or reassess its characteristics, thereby lending it new meaning. The participants had the opportunity to create their artworks using traditional media such as paint, charcoal, oil pastel and other media of their choice with images from magazines, newspapers, etc.

Below are examples of images that the learners created using traditional media thereafter transferred into the digital sphere.



Figure 6.1: Collage artwork by L2, after digital manipulation. Photograph taken by the researcher



Figure 6.2: Collage artwork by L4, after digital manipulation. Photograph taken by the researcher

These artworks produced by the participants reflect how collage made predominantly with traditional media differs from that which was largely manipulated with the use of digital technology. Figure 6.1 portrays the mainly traditional way of making a collage, which is by pasting images. L2, who created the image in Figure 6.1, ensured that she does the majority of her work in the art classroom and felt at ease with traditional media. When presented the chance to use digital technology, L2 made the following statement: “I do not see the need of using digital technology on my artwork as I like how it already looks.” Based on my observation, L2 found joy in experimenting with traditional media, was quite focused throughout the session in the art classroom and was far ahead of her peers. When closely observed, only the mouth in Figure 6.1 was added by using the computer as I had insisted that she do at least one edit to her original work. Figure 6.1 shows how a collage made with traditional media remains a quality finished product even with minimal digital alterations. Alternatively, Figure 6.2 portrays an artwork enhanced by using digital technology. During classroom observations, L4, who made Figure 6.2, experienced many problems searching for images that best suited her character. Her approach while in the art classroom was marked by a slow pace. When in the computer lab, she presented a confident attitude towards her work; she was excited about being able to better showcase who she really is through images from the internet. Her only concern was that she could not remove the sharp corners around the images she had chosen. L4, by using digital technology, successfully enhanced her work when she saw her original work as incomplete’. In an interview she mentioned, “using digital technology helped me enhance things that I disliked before”. The two artworks (Figure 6.1 and Figure 6.2) are examples of how collage can be approached from both traditional and digital perspectives. Both learners were able to translate their ideas by extending and experimenting with the mediums they felt well accommodated in.

The research study made it evident that integrating traditional and digital media in the artmaking process enabled learners to identify problems and develop possible solutions through their usage of critical and creative thinking. This demonstrated how the South African Revised National Curriculum Statement for Grade R-9 was effectively applied during this case study. The learners were able to use technology effectively and showed an understanding of their world through the integration of

different mediums to create and finalise their artworks. The decolonising of the art space by making use of digital technology was important in the formulation of new knowledges and the unlearning of others. The hidden curriculum of attitudes, behaviours and perceptions became evident during the case study. The importance of having learners experience enjoyment whilst learning was part of the hidden curriculum. Art education for the 21<sup>st</sup>-century primary school learner may have to coexist with digital technology as an additional tool used in the artmaking process in order to accelerate active learning as well as improve the quality of works produced in the art class.

### **5.2.2. Feminine ideologies in the digital age**

The idea of what the ideal female should look like has been communicated strongly in the 21<sup>st</sup> century, whether by television, magazines, and social media at large. According to Michelle Bae (2011:28), the contemporary young woman has become depicted as sexualised, individualist, externally beauty-oriented with a consumerist attitude. Post-feminist girl power is portrayed in images of women with perfectly toned make-up and perfect bone structure, with bright and bold hair colour, and perfect pear-shaped figures as mass-produced in consumer culture. This is said to be one of the much scrutinised issues of the postfeminist ideologies of girl power which is structured by aesthetically-oriented consumerism and created through mainstream commodification for economic purposes (Bae 2011:29). Young girls at a tender age are being fed ideas about femininity that revolve around perceptions that “women use autonomous control over their bodies and appearance to build a construct that will eventually be objectified by the male gaze” (Bae 2011:29). This speaks to how beautifying oneself has always been based on patriarchal standards for the demands of the male gaze and attention. Furthermore, Bae (2011:30) highlights how postfeminist ideologies suggest a close link among individual power, feminine identity, consumption and girls’ self-monitoring practices in a neoliberal capitalist regime.

During class observations, I found that the principal concern for most participants was how “they” would appear once they placed other images on the photocopied original images of their faces. It was also evident that the struggle with the traditional media component of the collage project meant that they would no longer look perfect or

likeable. The gender discourse posed a limitation to how the task was approached. The digital technology section appealed greatly to the participants as they were familiar with editing their pictures and backgrounds before placing them on social media platforms. L15's statement of "digital makes things look better" and "I can make my art look prettier" acknowledged the underlying intentions of digital technology which is to always refine and present things in a more desirable manner. Feminine ideologies in the digital age speak to being prettier, cuter and more lovable than other counterparts. There is an indication of the female image being part of the consumer culture and existing to be consumed by the global onlooker. By using collage as a medium for self-expression, you subvert the dominant visual representations of women in the media. By cutting bits of representations of women from magazines and using it for your own purposes, the artist is decolonising that image and disrupting the mainstream. By representing themselves as different and in a different way, space is created for those who are "other" and marginalised. Identity becomes more open and the strict hierarchy that comes with colonial thought is dismantled.

### **5.2.3. Art aesthetics in the digital age**

It is fundamental that the artist reproduces the world as it really is, and also reproduces the unseen world existing in his or her imagination (Weinstein 2003:14). This statement by Weinstein emphasises how art should indeed represent the society in which it is produced. In agreeing with the statement, art produced in the digital society should reflect the culture of the people who are born in it and people who have existed through the developments within it. As the participants in this research were born within these digital advancements in society, it is only fair that they are exposed to the traditional art aesthetics, as well as art in a digital space. In their group discussion, they were of the opinion that art is more than something for which you should use a pencil or a paintbrush. They expressed how art should not be limited to just the use of traditional mediums. To a certain point, art does to be limited to certain mediums while it should be able to use a variety of tools for expressing oneself fully.

Rajagopal states that "art is marked by its cultural and national origins" (Campbell & Martin 2006:137). Involvement in art practices may enable individuals to question their own social status, language, race, ethnicity, values, beliefs, behaviour and spiritual orientation (Taylor 1999:232). Individuals are able to learn more about themselves and



the contexts in which they find themselves. Furthermore, art can be understood through the psychoanalytical perspective of experiential learning whereby the mental processes within the conscious and the unconscious realm influence the art that is produced by individuals (Fenwick 2001:28). According to Arthur Danto, art functions as a “mirror” of nature (Weinstein 2003:14).

According to Lia Wang (2016), art and technology have always had a unique relationship. Technology is deemed useful and utilitarian as it is able to help artists create works by traditional and digital means. By integrating technology in their artworks, artists can create new effects and meanings to their works (Wang 2016). I agree with Wang (2016) that technology can itself be considered art in the most abstract sense, as the innovations speak to art aesthetics that stand for balance, proportion and are appealing on the eye.

### **5.3. The role of digital technology in the primary school art curriculum**

In the group discussion, several participants mentioned the role of digital technology as adding “fun”, “excitement” and that it was “entertaining” and “interesting”. However for digital technology to be perceived as more than just an entertainment tool within the art curriculum, it would be of benefit to note that some participants voiced educational opinions on the role of technology in the art curriculum. Twenty participants indicated that there was a role for the technology in art education while three mentioned that it does not have a role. Their opinions were as follows:

L1: “I am able to draw better”

L2: “we are given the opportunity to explore the bigger world of art”

L3: “we can learn about the changes in the world and the type of software we can use if we want to be artists”

L4: “people will have more interest in art if technology is used”

L5: “we have to learn to use technology as it is the future”

In response to the participants’ opinions on the role of digital technology in the art curriculum, it can be noted that Souleles (2017:589) sees the advantages of digital tools as facilitating the research and the collection of ideas and visual material through the Internet, as well as allowing for the simultaneous comparison of different

ideas. Micro and macro aspects of projects, and complex ideas, can be supported with digital tools. Furthermore, students who have limited drawing ability can have access to certain software which could assist them to express their ideas and help them develop their concepts through sketching on screen (Souleles 2017:589). Learners can be given many chances to work on an artwork whilst being able to undo any possible mistakes.

### **5.3.1 Perceived roles of technology in the artmaking process**

The majority of the participants highlighted, through focus group discussions and questionnaires, that they perceived the role of technology in the artmaking process as an easy way to add 'nice' effects; a way to provide opportunities to do more on the artwork; to add the finishing touches; to erase and rework different sections of the art; to add variety; to enhance artworks; making the quality of the artwork better; and it changing the way we think. A minority of the participants mentioned that technology should only be used when something is impossible to do on paper. They also mentioned that it should only be used sometimes, if at all when making art. Fourteen participants said 'yes' they believed there is a need to use digital technology when making art, while nine said 'no' there was no need to use it in the artmaking process.

As the researcher, I believe that digital media tools and traditional visualisation tools should be conceived as complementing rather than replacing each other. The advantages of using traditional tools, as mentioned by Souleles, are: to support the organisational relations of design problems; to enhance creativity in the conceptual stage; promote better conceptions of design problem; assist the development of alternative solutions; and make more effective use of time (2017:588). Chia and Duthie (1994:197) highlight a need for art teachers to collaborate with programmers for improving the artistic and educational quality of art education software. They encourage the full assimilation and synthesising of the digital and technological developments within art practice for artistic purposes. The global advancements in research and computer graphics in the digital technology space that accommodate the creative needs of any artist should be embraced by art teachers in their classrooms.

Learners seem to identify better with digital technology than ever before. Therefore, it would be wise for art teachers to find innovative ways of integrating these useful digital



tools with the artmaking process. The possibilities of using digital technology are endless, and the art curriculum could be improved and appropriately restructured in order to integrate both traditional and digital media.

### **5.3.2. Educational elements of using digital technology in the art classroom**

The educational elements of using digital technology in the classroom were demonstrated as experiential learning, critical thinking, problem solving and analysis. By only being directed to the Keynote application on their Macs and iPads to make edits and enhancements, learners only depended on prior knowledge about how to manoeuvre the application.

During the interview, one participant said,

“If you paint and you mess up, it seems like it’s the end. While on digital technology, you can always go back and undo that mistake. There are more options in creating the artwork on digital media. The original can always be saved and be used as a template. You can therefore have many opportunities to explore and recreate the same artwork using different features. There are many chances to redeem yourself and ultimately commit to your favourite work and present it as the final artwork.”

As the researcher, I discovered that the trial and error component that was offered by working on the digital platforms granted the learners extended opportunities of presenting their artworks in multiple forms. While experimenting with the digital technology, learners were able to discover new features which enabled them to create new meanings in their final artworks. By being able to save the original as a template, and afterwards being able to create multiple varied qualities in the presentation, the artworks proved to be a rigorous yet meaningful learning experience for the participants.

### **5.3.3. The reported active learning around the link between digital technology and traditional media in making and enhancing artworks**

During classroom observations, learners readily engaged equally with both traditional and digital media. The learners displayed a strong interest in youth-popular culture which attracted and sustained their attention in both mediums. Their attention to the

images they were choosing when creating the collage in the art classroom was similar to the level of focus in the computer laboratory when using digital technology. The learners could form a link between the traditional and digital mediums as they could use their explicit and implicit out-of-school knowledge when approaching both mediums. Both learners who were highly skilled and those who were weaker in art could engage well during the traditional and the digital component of the research study. The participants reported the following:

L6: “we learned so much from using both traditional and digital media on our art”

L7: “there was a lot we could do to make our artwork look better”

L8: “we were able to try new things”

The hidden curriculum played a major role in this section of the case study as there were unspoken values, behaviours and norms that became evident during the collection of data. Notable concerning the hidden curriculum was the importance of using digital technology in order to maintain the learners’ interest in a task for a long period of time. The element of fun, curiosity and excitement sustained by the integration of digital technology was also part of the hidden curriculum, as well as the perception that technology exposed the participants to many different things. Due to the digital aspect in the nature of the school, the learners were open to experimenting on their digital devices due to the digital culture in which they already found themselves. The learners’ personal experiences with digital technology allowed them to form different understandings of using digital technology.

The theme of digital technology in the primary school art curriculum presented the complexities that exist within the perceptions of using digital technology in the art classroom. Whilst there are positive and negative uses of digital technology, the school environment is a stable space in which digital technology can be used for educational purposes whereby learners can experience active learning and problem solving.

This chapter has presented evidence of a role for digital technology in the artmaking process in igniting the elements of fun and excitement in the learning process. In as much as it accelerates the speed at which visual images can be obtained, there is also added quality to the end products when digital technology is used. Digital technology

benefits the artmaking space when integrated with traditional methods as it extends the art curriculum and enhances the learners' engagement with the task. In the following chapter the implications of the findings are explored and the conclusions drawn from the study to the case study are discussed.

## **CHAPTER 6: CONCLUSIONS AND IMPLICATIONS**

### **Introduction**

The research topic was chosen because I as an art educator wanted to explore how digital technology could be used to enhance artworks created by using traditional media in the art classroom. The research study sought to discover how using digital technology together with traditional media affects the process of art making in the art classroom. The research study used both qualitative and quantitative data collection tools. The mixed methods used in this study allowed the researcher to collect data that could be calculated (quantity) and data explaining participants' views (qualitative). The research took the form of a case study, with the researcher making use of group discussions, in-depth interviews, open-ended questionnaires and classroom observation tools. The limitations of the research were the busy school academic and extra-mural calendar and the absenteeism of participants. The busy school calendar affected the amount of time during which the learners could attend their art lessons, therefore causing some disruption to the data collection schedule. The learners were consistently absent due to illness, sports commitments and/or early holiday retreats.

### **6.1. Conclusions drawn from the findings and implications**

From the information gathered during data collection, I can report that many learners demonstrate a positive attitude towards using digital technology to enhance their artworks. Using digital technology improves learners' artwork, thereby creating images of better quality than the original. The learners demonstrated a solid understanding of what art is even after digital technology was used to enhance their artworks. Learners identified the role digital technology can play in the artmaking process. The learners were enabled to form a link between traditional and digital media, as well as to comprehend how these can be integrated. Young female Grade 6 learners were able to grapple with issues of identity construction through the making of collages using both traditional and digital media. The learners revealed an ability to engage with both mediums in a critical, experiential manner and active learning using both traditional and digital technology was evident. The learners were able to embrace creating artworks in environments other than the art classroom. The high degree of engagement with both digital and traditional mediums among the Grade 6 learners demonstrated the usefulness of exhausting both media in the art classroom.

These findings may not be generalisable due to the nature of the context of the school which is said to be highly advanced in technological usage within the teaching environment. Not many primary school children have the privilege of carrying iPads to school, having limitless internet access and are in Apple schools. Nonetheless, instead of using Macs or iPads other schools could allow their learners to utilise their cellular phone devices or art software to enhance their artworks.

Art education can benefit largely from the integration of digital technology with traditional mediums from as early as primary school, although art educators may need extensive training in order to formulate projects that embrace the usage of digital technology with traditional mediums in the art curriculum. Global citizenship could be explored in the art classroom through better usage of digital tools. Learners should be guided to achieve a clear understanding of the educational benefits of integrating digital technology with traditional media in the art classroom and be allowed to explore the vast opportunities presented by using both media.

This research study is a case study only focusing on female Grade 6 learners in an independent school which prides itself as being an Apple school using only Apple digital devices.

The experimentation with using digital technology in the art classroom may seem useful in accommodating learner strengths and weaknesses posed by using traditional media in the art classroom. The appealing nature of digital tools could also arouse interest in careers in creative art among learners. Many of the creative art careers in the 21st century thrive from the utilisation of digital visualisation tools. This then would mean that learners from a young age can form a positive attitude towards a career in the creative field.

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## **Addendum A - FOCUS GROUP INTERVIEW QUESTIONS**

### **Focus group questions**

1. Would you advise someone to use digital technology when making artworks?
2. How did using technology in enhancing your art make you feel about digital technology being used in the art classroom?
3. Do you think technology has a role in the artmaking process?
4. Are there other ways you think digital technology can be integrated in the art classroom?
5. Do you think your final artwork that you have edited still read as art?
6. Any other thoughts you would like to share on your experience in using digital technology as part of the artmaking process?

## Addendum B – OPEN-ENDED QUESTIONNAIRE

### Open-ended questionnaire

Answer the following questions by marking with 'X' in the correct circle. Give reason to each **YES** or **NO** answer in the lines provided.

- 1 Was the quality of your artwork affected by using digital technology?

Yes ☐ No ☐

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- 2 Does using digital technology to enhance your artwork change the way you understand art?

Yes ☐ No ☐

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3. Was it helpful to use both digital technology and traditional media in presenting your collage?

Yes ☐ No ☐

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4. Do you believe there is a need to use digital technology when making art?

Yes ☐ No ☐

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5. Do you think technology can be used in art education?

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## Addendum C – CONSENT FORM

	STELLENBOSCH UNIVERSITY
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### ASSENT FORM FOR MINORS



Dear Grade 6 Girls

I would like you to please consider being a part of my research for a project that I am doing for university.

This letter hopefully answers any questions you may have with regards to my project. At the end of the letter, you will be asked whether you understand your role in my research and if you would like to be a part of this project.

**TITLE OF THE RESEARCH PROJECT:** How using both technology and traditional art mediums may change the way that we make art.

**RESEARCHER'S NAME(S):** Mrs Motake

**RESEARCHER'S CONTACT EMAIL:** smotake@stithian.com

### What is RESEARCH?

Research is something we do to find **NEW KNOWLEDGE** about the way things (and people) work. We use research projects or studies to help us find out more about children and teenagers and the things that affect their lives, their schools, their families and their health. We do this to try and make the world a better place!

### **What is this research project all about?**

This research project is about how using digital technology, such as cell phones, computers, computer software, scanners and other different applications (on cell phones and computers) in the art class can affect the way in which we understand how art is made, and how art is to be understood.

### **Why have I been invited to take part in this research project?**

You have been invited to take part in this research project because you are familiar with digital technology in your daily life, at school and at home. You will have the opportunity to now use the digital technology in the art classroom to further improve, edit or manipulate your artwork by exploring different features of digital software.

### **Who is doing the research?**

The art teacher at St Stithians Girls' Preparatory, Mrs Motake, will be doing the research. The research will be done to further find the benefits of having digital technology in the school environment, specifically within the art classroom.

### **What will happen to me in this study?**

You will have to make an artwork using paint, pencils, oil pastel and/or charcoal. Once you have finished making your artwork, you will then scan it into the digital software in the computer lab or iPad. You will then edit and change it to improve the way it looks, like you do with pictures on Instagram or Facebook. After having changed your artwork using technology, you will print it out and present it as a finished artwork. You will then have to answer some questions in an interview your teacher will do where she will record only your voice and not your face. You will also answer a questionnaire. These questions will be to find out more about how you felt using the computer, scanner, and software in making art. The teacher will also watch you while you make your artwork in the art class and the computer lab and make some notes.

### **Can anything bad happen to me?**

Nothing bad will happen to you because you will be doing an art project at school, during your art lesson, with your teacher watching and ensuring that you are safe at all times.

**Can anything good happen to me?**

You will get to use technology in creating your artwork. You will be part of introducing another way of making art in the art room.

**Will anyone know I am in the study?**

No one will know that you are in the study. The art teacher will make sure that your name will not be mentioned in the study. Only information such as your grade and gender will be known.

**Who can I talk to about the study?** You can talk to your art teacher, Mrs Motake, if you have any questions or problems about the study.

**What if I do not want to do this?**

You can tell your parents that you do not want to do this, then they can fill in a form that shows that you do not want to be part of the study. If they want you to be part of the study and you do not want to, you can still tell your teacher and you will not get into trouble. You can also stop being part of the study at any time and you will not be in any kind of trouble with either your teacher or your parents.

**Do you understand this research study and are you willing to take part in it?**

YES

NO

**Has the researcher answered all your questions?**

YES

NO

**Do you understand that you can STOP being in the study at any time?**

YES

NO



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Name of child

---

Signature of Child

---

Date

Kind regards

Mrs Motake

## **Addendum D – LETTER FROM LANGUAGE EDITOR**

**HESTER HONEY**

LANGUAGE CONSULTANT

91 BRANDWACHT STREET, STELLENBOSCH 7600

This is to confirm that I have edited the MA thesis

by

**SIPHESIHLE MOTAKE**

titled

**EXAMINING HOW INTEGRATING DIGITAL TECHNOLOGY WITH TRADITIONAL  
MEDIA IMPACTS THE PROCESS OF ARTMAKING IN THE ART CLASSROOM –  
A CASE STUDY OF A GRADE 6 CLASS IN AN INDEPENDENT GIRLS' SCHOOL  
IN GAUTENG**

The thesis is presented in partial fulfilment of the requirements for the  
Master's Degree in Visual Arts (Art Education) at the Department of Visual Arts,  
Stellenbosch University

I have made suggestions regarding language use and technical care to be  
implemented by the candidate.

H M Honey

(22/10/2019)

