

**Using Social Stories with the creative arts for
individuals on the autism spectrum:
professionals' perspectives and practices**

Rasha Saleh Bawazir

**Thesis submitted in fulfillment of the requirements
for the degree of Doctor of Philosophy**

UCL Institute of Education, London

2022

Declaration

I, Rasha Bawazir, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Acknowledgement

I would like to express my most sincere appreciation to my supervisors, Professor Phil Jones and Dr Joseph Mintz, for the guidance and assistance. I am deeply indebted to Professor Jones for his continuous support, patience and critical insight. It was a great privilege to work under his supervision.

I am also very grateful to all the experts and participants who offered valuable information that enabled me to complete my research – particularly to Dr Karl Wall, Dr. Bernardita Munoz Chereau and Mr Charlie Owen for their advice and assistance.

I would also like to extend my deepest gratitude to my parents for their love, encouragement and endless support. I am extremely grateful to my supportive husband and my lovely children, who are a continuous source of inspiration to me. Special thanks also to my family and friends for their prayers and unconditional support.

Abstract

This study examines professionals' perspectives and practices regarding the use of Social Stories with the creative arts for individuals on the autism spectrum. These perspectives were investigated using a theoretical framework, which explored Social Stories based on Bandura's social learning theory, and the nature of the creative arts based on Gardner's multiple intelligences theory. These two theories were then integrated to explore professionals' perspectives on the ways in which they approach the use of Social Stories in conjunction with the creative arts and the impact such uses produce. A mixed methods sequential design was used, starting with a questionnaire and followed by using series of qualitative analytical methods.

Findings showed that professionals' views concerning the use of Social Stories aligned strongly with Bandura's observational learning principles. Additionally, professionals' ways of working within the context of Social Stories reflected and supported the interrelationship between the four observation learning stages of attention, retention, reproduction and motivation. The study also revealed that the creative arts were considered beneficial in helping autistic individuals across different areas of learning as well as in their social and emotional development.

The study also found that participants concurred with the idea of integrating Social Stories with the creative arts, but only at a moderate level, because the strategy may not be used by the majority of professionals. A variety of views, attitudes and suggestions were offered, along with concerns and challenges that were raised in relation to the impact of using Social Stories in conjunction with the creative arts. The final findings showed that professionals who used Social Stories with the creative arts reported using various forms of the arts for different intended impacts and purposes. The findings highlighted many ways of working and perceived positive effects with meeting the associated challenges.

In conclusion, there are different areas within the structure of planning, delivering and evaluating Social Stories that can be supported by the integration of the creative arts, including interest, motivation, attention,

retention of information, communication, engagement and assessing understanding. The combined use of Social Stories and the creative arts can also offer more opportunities for individuals with autism to play an active role within the process of learning. The inclusion of a creative modality can also be a useful way of engaging autistic individuals when using Social Stories, which increases the likelihood of more positive outcomes.

Structure of the Thesis

The thesis consists of five chapters. The first chapter begins with an introduction to the research topic. It also identifies the relevant gaps in the literature, sets out the rationale and the aim of the research, and lists the consequent research questions.

The second chapter critically reviews and discusses the literature concerning individuals on the autism spectrum, covering areas related to definition, causation and prevalence. It also looks at the literature on the medical and social models of disability, the concept of Social Stories and professionals' perspectives on using Social Stories for individuals on the autism spectrum. Following this, the study reviews and discusses the existing literature on using the creative arts generally and their use in conjunction with Social Stories for individuals on the autism spectrum. The chapter concludes by presenting the study's theoretical framework, drawing on social learning theory, multiple intelligences theory and the integration of these two theories.

The third chapter discusses the research methodology and introduces the approaches used in the data collection process, the data analysis methods and sampling. The chapter also critically discusses the philosophical research paradigm of pragmatism. Other areas covered in this chapter include a discussion of the validity of mixed methods research, research ethics and the use of pilot study.

The fourth chapter presents the data and the research findings according to the sequence of the study design. The chapter presents the quantitative data first, followed by the qualitative data. The quantitative section begins by assessing the participants' background. Following that, descriptive statistics are used to analyse the questionnaires in order to address the research questions. The qualitative section presents the findings of the focus groups as well as looking at individual interviews, diaries and diary-based interviews using thematic analysis.

The fifth chapter discusses the research findings by integrating quantitative and qualitative data and linking them with relevant literature. The chapter

concludes by presenting the limitations of the study, the study's contribution to theory and practice and by offering recommendations for future research.

The heading structure of the thesis follows the APA7 style.

Impact Statement

This thesis focused on an emergent approach for individuals on the autism spectrum, one that is based on the integration of Social Stories with the creative arts. My review of the literature showed that a great deal of attention has been focused upon the value and efficacy of this approach. However, this study looks at the subject from a different angle by offering a theoretical understanding in which professionals' views about this way of working have also been explored. The term 'the impact of research' is understood to mean the influence and contribution of research outcomes on any given field of study and on people who share similar specialism or interest in the area of knowledge being researched (Chandler, 2014).

In a sense, the impact of my research is already in progress. It is reflected in the fact that I have delivered several presentations on my research topic at conference, university and schools. I also won the best paper award at the 19th International Conference on Autism in London in 2017 for my paper entitled: "a theoretical framework on using Social Stories with the creative arts for individuals on the autistic spectrum", which was later published (Bawazir and Jones, 2017). I have also delivered a teaching session for MA students at UCL in the Contemporary Debates and Issues in Primary Education module, and I gave a presentation for teachers working with children on the autism spectrum in two schools in London. My approach to sharing knowledge is to explain to people the ways in which incorporating the creative arts with Social Stories can bring practical benefits when working with individuals on the autism spectrum.

Within the academic realm, my work helps to extend and expand existing bodies of research. For example, the study has illuminated the nuances within professionals' views on the potential impacts of pairing Social Stories with the creative arts. The results have also provided in depth insights into the ways in which professionals approach the use Social Stories in conjunction with the creative arts. This study offers people within the academic community new directions and new ideas for further research, such as using professionals' examples of the way they used Social Stories with the creative arts as starting

points to measuring their efficacy.

The impact beyond academia can take a variety of forms. Ultimately, the impact of this research will hopefully benefit individuals on the autism spectrum through its influence upon the professionals involved in service provision. It could offer people who work in different professions such as education or health deeper insights into the mechanisms, reasons, benefits and challenges behind the use of Social Stories with the creative arts for individuals on the autism spectrum. This understanding would help professionals use this method in a more effective way to develop individuals who fall within the autism spectrum. For example, knowing that the creative arts can be useful with Social Stories to support attention but that they might also lead to over-stimulation would help teachers to consider this issue in advance and be prepared to deal with it. The study could also be influential in designing training programmes and courses to help teachers and support workers train others to work with autistic individuals. For instance, it offers trainers data and proposed theories that they could use to design a workshop which explains the ways in which using Social Stories with the creative arts could be beneficial in theory and practice.

Another impact could be in the way this study's findings inform practitioners, as the data provides perspectives from different examples of art modalities, which could encourage practitioners to integrate other creative art forms into their work along with Social Stories. It could for example encourage art therapists to practice the delivery of Social Stories within their own therapeutic practices. The practices set out in my thesis could also be extremely useful in drawing the attention of educational leaders in the field of autism to the benefits of adapting and using Social Stories within different creative scenarios. Finally, parents and caregivers for individuals on the autism spectrum could also benefit from this study as it offers insights into the value of integrating various forms of the creative arts with Social Stories. It also provides different examples of how to apply and use Social Stories with various creative modalities, which would work as a guide to helping with the implementation and use of other ideas.

All of these impacts can be seen as a way of supporting people who work or engage with studies related to individuals with autism either nationally or internationally.

Table of Contents

Declaration	2
Acknowledgement	3
Abstract	4
Structure of the Thesis	6
Impact Statement	8
Table of Contents	11
List of Tables	13
List of Figures	14
Chapter 1: Introduction	15
1.1 Gap in The Literature	17
1.2 Research Motivation and Rationale	20
1.3 Research Questions	21
1.4 Research Aim	21
Chapter 2: Literature Review	23
2.1 Introduction	23
2.2 Autism Spectrum: A Definition	23
2.3 Medical and Social Models of Disability	27
2.4 Social Stories: A Definition	29
2.5 Professionals’ Perspectives on Using Social Stories for Individuals on The Autism Spectrum	33
2.6 Using The Creative Arts for Individuals on The Autism Spectrum	38
2.7 Using Social Stories With The Creative Arts for Individuals on The Autism Spectrum	40
2.8 Theoretical Framework	45
2.8.1 <i>Social Learning Theory</i>	49
2.8.2 <i>Multiple Intelligences Theory</i>	55
2.8.3 <i>The integration of Social Learning Theory and Multiple Intelligences Theory</i>	61
2.9 Chapter Summary	65
Chapter 3: Methodology	67
3.1 Introduction	67
3.2 Research Aim	67
3.3. Research Questions	68
3.4 Philosophical Paradigms	69
3.4.1 <i>Pragmatism</i>	69
3.5 Mixed Methods Research	74
3.5.1 <i>Case Study</i>	79
3.6 Research Methods	81
3.6.1 <i>Questionnaires</i>	82
3.6.2 <i>Interviews</i>	84
3.6.3 <i>Solicited Diaries</i>	88
3.7 Data Analysis	91
3.7.1 <i>Quantitative Data: Descriptive Statistics</i>	91

3.7.2 Qualitative Data: Thematic Analysis.....	92
3.8 Research Sample	97
3.9 Validity in Mixed Methods Research	99
3.10 Research Ethics	105
3.11 Pilot Study.....	108
3.12 Chapter Summary	115
Chapter 4: Results	117
4.1 Introduction	117
4.2 Phase One: Quantitative Results	117
4.3 Phase Two: Qualitative Results	131
4.4 Reflective Statement.....	215
4.5 Chapter Summary	218
Chapter 5: Discussion.....	219
5.1 Introduction	219
5.2 Q.1 What Are Professionals' Perspectives on The Nature of Using Social Stories for Individuals on The Autism Spectrum?	220
5.3 Q2. What Are Professionals' Perspectives on The Nature of Using The Creative Arts for Individuals on The Autism Spectrum?	237
5.4 Q.3 What Are Professionals' Perspectives on The Impact of Using Social Stories in Conjunction With The Creative Arts for Individuals on The autism Spectrum?	249
5.5 Q.4 How Do Professionals Approach The Use of Social Stories With The Creative Arts for Individuals on The Autism Spectrum? ...	256
5.6 Summary of the Research Findings	270
5.7 Research Limitations.....	277
5.8 The Research Contribution.....	278
5.9 Recommendations for Future Research.....	279
References.....	280
Appendices.....	297
Appendix (A): Multiple intelligences theory categories definition	297
Appendix (B): Information sheet.....	298
Appendix (C): Questionnaire	301
Appendix (D): Focus group interview schedule.....	309
Appendix (E): Individual interview schedule.....	311
Appendix (F): Informed consent	313
Appendix (G): Diary	314
Appendix (H): Transcription guidelines	317
Appendix (I): Pilot study expert panel email letter, information sheet and questionnaire	318
Appendix (J): Pilot study quantitative results and discussion	335
Appendix (K): Pilot study pretesting the interviews schedule.....	339
Appendix (L): Pilot study pretesting the diary	343
Appendix (M): Pilot study qualitative results and discussion	350
Appendix (N): Questionnaire section (B) participants' background information.....	351
Appendix (O): Questionnaire section (C) participants' background information.....	353
Appendix (P): Questionnaire section (C) results	354

List of Tables

Table 3.1 Research questions linked with research methods and time.....	81
Table 3.2 Participants' pseudonyms	94
Table 3.3 Participant numbers.....	98
Table 4.1 Area of expertise.....	118
Table 4.2 The nature of using Social Stories.....	119
Table 4.3 The nature of using the creative arts	121
Table 4.4 The impact of using Social Stories with the creative arts.....	123
Table 4.5 The intended impact of using Social Stories with the creative arts	126
Table 4.6 The purposes of using the creative arts with Social Stories	127
Table 4.7 How the creative arts are used with Social Stories	128
Table 4.8 Introducing and citing qualitative data	133
Table 4.9 Themes and example quotes from interviews on the nature of Social Stories.....	135
Table 4.10 Themes and example quotes from interviews on the nature of the creative arts	163
Table 4.11 Themes and example quotes from interviews on the impact of using Social Stories with the creative arts	181
Table 4.12 Themes and example quotes from diaries and diaries-based individual interviews.....	195
Table 5.1 Bandura's observational learning stages linked with the quantitative and qualitative data	222
Table 5.2 An illustration of the use of Social Stories with the creative arts, drawing on social learning and multiple intelligences theories	257

List of Figures

Figure 2.1 Theoretical framework.....	49
Figure 3.1 The process of the QUAN-qual sequential explanatory design.....	76
Figure 4.1 Area of expertise	125

Chapter 1: Introduction

People on the autism spectrum often experience challenges in communication and social interaction as well as stereotypical behaviour, interests and activities. They also experience sensory differences and may be sensitive to particular sensations (Wilkes, 2005). Autistic people can be under- or over-sensitive to sight, sound, smell, touch and taste (ibid). They also can have particular potentials in areas related to memory, music, (Itzchak et al., 2013; Treffert, 2000), reading, visuospatial skills (Itzchak et al., 2013), math and art (Treffert, 2000). There is a wide range of learning strategies used with autistic individuals to help them develop in areas related to learning and behaviour. Strategies that professionals implement include Social Stories, the creative arts and Social Stories in conjunction with the creative arts.

Social Stories were first developed as a way of working by Carol Gray in 1993 to help people on the autism spectrum understand and acquire social skills (Gray and Garand, 1993). They are short Stories that adhere to specific guidelines and aim to address different areas such as skills, concepts, events, activities or social situations. Social Stories are a strategy that is widely used by professional organisations working with individuals on the autism spectrum to support them in areas of learning and development (Xin and Sutman, 2011). The way Social Stories are structured can provide many advantages for individuals with autism. Professionals have used Social Stories to reduce inappropriate behaviour, increase appropriate behaviour, teach social skills and introduce changes or new routines (Asiago, 2019; Dev, 2014; Reynhout and Carter, 2009).

The creative arts are another strategy that has increasingly seemed to be beneficial for individuals on the autism spectrum. The term refers to visual art, drama, music and dance, and the creative arts can be used alongside different learning strategies to stimulate cognition, social interaction, communication and psychological wellbeing for individuals on the autism spectrum. These aesthetic modalities are dynamic components that can help support and enhance the capabilities learners' with autism. The literature offers various examples of the impact and merits that the creative arts can

provide for individuals on the autism spectrum. Mathews (2018) argues that “creativity can promote attention, social interaction, self-reflection, and an opportunity to stimulate both verbal and non-verbal communication” (p.26). Art making according to Round et al. (2017) helps to increase the concentration levels of the participants. Kempe and Tissot (2012) found that drama enabled two girls on the autism spectrum to develop imaginary/imaginative skills. Souza-Santos et al. (2018) found that “dance aroused interest and curiosity, as well as expression and emotion” (p.290). The use of music with individuals on the autism spectrum can lead to a reduction in overall stress levels (Trevarthen, 2002) and increased levels of engagement with tasks (Stamou et al., 2019).

The integration of Social Stories with the creative arts represents a further approach to supporting individuals on the autism spectrum and helping them to learn and develop. This approach refers to the use of Stories with an element of the creative arts in their delivery to stimulate cognition, social interaction, communication and psychological wellbeing for individuals on the autism spectrum. In the literature, different arts forms are used with Social Stories such as music (Cowan, 2016; Fees et al., 2014) and role-play (Dinon, 2013). There are different reasons for different uses, such as using Social Stories with music to help with the recall of information in the Story (Brownell, 2002; Iliff, 2011), increasing attention, encouraging repetition of the Stories and student involvement (Brownell, 2002). Drama can also be used to act out the skills involved in the Social Story (Dinon, 2013). These reasons highlight some of the benefits that the creative arts can contribute to individuals on the autism spectrum when used alongside Social Stories.

Professionals’ perception and experience can provide insightful information into their practice. The term professionals’ refers here to those who work with individuals on the autism spectrum in various settings in different professions within the UK. Learning about professionals’ views and practices concerning Social Stories and the creative arts in the context of autism could be a way to construct a clearer picture of the teaching experience. This thesis will focus on exploring professionals’ views and practices in relation to the use of Social Stories and the creative arts both separately and in combination for autistic

individuals. The current study is situated in relation to research in autism and disability studies from the perspective of people who work with individuals on the autism spectrum, as only one participant is the parent of an autistic child. The following section discusses the gaps in the literature and the ways in which they are addressed.

1.1 Gap in The Literature

To validate a new piece of research valid, it should identify and address one or more gaps in the literature and in existing research. There are different types of research gaps, such as evidence gaps, knowledge gaps, practical-knowledge conflict gaps, methodological gaps, empirical gaps, theoretical gaps (Miles, 2017; Müller-Bloch and Kranz, 2015) and population gap (Miles, 2017; Robinson et al., 2011). This thesis addresses two types of gaps: the first is a knowledge gap, which means that there is an unexplored area and research findings are missing (Miles, 2017; Müller-Bloch and Kranz, 2015). There are different types of knowledge, and this study will focus on professionals' knowledge. The second gap is a theoretical one, which refers to a lack of existing theory used with a particular research issue to provide new insights (ibid). The next section identifies these gaps in more detail:

1.1.1 The First Gap: Professionals' Perspectives and The Nature of Using Social Stories

Various studies have examined professionals' perspectives on using Social Stories for individuals with autism; see for example Asiago (2019), Aldawood (2019), Wright et al. (2016), Alotaibi et al. (2016), Dev (2014), Reynhout and Carter (2009), Ventimiglia (2007). Two of these studies – Asiago (2019) and Aldawood (2019) – explored teachers' views on using Social Stories through the lens of social learning theory. The current study builds on previous studies' examination of professional perspectives, but looks at more specific aspects of the experience of Social Stories in a different framework. Previous studies' findings about professionals' views have limited information and/or unexplored areas concerning the nature of using Social Stories for individuals

with autism that they have not identified. This thesis sets out the idea that within social learning theory the four stages of observational learning – attention, retention, reproduction and motivation – help to explain the mechanisms behind Social Stories. It focuses on these four stages to investigate the ways in which professionals' views and explanations of Social Stories and change reflect the concepts of observational learning processes. This study is mainly interested in understanding the way professionals perceive the nature of Social Stories for individuals' with autism from a theoretical point of view in order to identify if these professionals are fully aware of the mechanism behind it and the ways in which this understanding and awareness is reflected in their practice. This exploration was examined within a framework in order to assess the anticipated impact of using Social Stories with the creative arts.

1.1.2 The Second Gap: Professionals' Perspectives and The Impact of Using Social Stories With The Creative Arts

Although there are studies that have examined the use of Social Stories with music (Cowan, 2016; Fees et al., 2014; Iliff, 2011; Pasiali, 2004; Brownell, 2002) and role-play (Dinon, 2013; Chan and O'Reilly, 2008) there is a lack of engagement with professional perspectives on the use of Social Stories in conjunction with the creative arts. The aim of this research is therefore to explore professionals' perspectives on the impact of using Social Stories with the creative arts for individuals on the autism spectrum. This will also involve exploring areas that include benefits, challenges and attitudes.

1.1.3 The Third Gap: Professionals' Practices and Using Social Stories With The Creative Arts

There are studies that examine the use of Social Stories with the creative arts. However, the uses had different aims in mind, such as Social Stories presented in musical format (Cowan, 2016; Fees et al., 2014; Iliff, 2011; Pasiali, 2004; Brownell, 2002) and included role-play with Social Stories

(Dinon, 2013; Chan and O'Reilly, 2008). However, to date there have been no studies investigating the ways in which professionals in everyday practice use Social Stories with the creative arts for individuals on the autism spectrum. For this reason, the research also aims to explore professionals' practice, motivation and challenges in terms of using Social Stories with the creative arts for autistic individuals.

1.1.4 The Fourth Gap: Theoretical Framework for Using Social Stories With The Creative Arts

Previous studies, such as Fees et al. (2014), draw upon Vygotsky's socio-cultural theory of development as a way to theorise the use of Social stories with music. While this theory helps examine the use of Social Stories with music in certain ways it does not help to understand what is happening when Social Stories are paired with the broader remit of the creative arts. The theoretical approach of the current study will help to address that gap in theory by creating a fuller theoretical framework that draws on the integration of Bandura's social learning theory and Gardner's multiple intelligences theory. This framework will offer insights into how combining Social Stories with the creative arts can help individuals on the autism spectrum in developing their behaviour and actions. It will also help understand the role of the creative arts in supporting the implementation of Social Stories for individuals on the autism spectrum.

These are the gaps in theory and knowledge that the study will address. It will explore a gap in knowledge concerning professionals' perspectives on the nature of Social Stories and the impact of using Social Stories with the creative arts for individuals on the autism spectrum. It will also investigate the ways in which professionals use Social Stories with the creative arts for individuals on the autism spectrum. In addition, the study addresses a theoretical gap in the use of Social Stories with the creative arts as a whole for individuals with autism.

1.2 Research Motivation and Rationale

The integration of the creative arts with other learning strategies has become an increasingly popular approach when working with individuals on the autism spectrum. The creative arts, according to Batson (2010), offer

...a variety of authentic experiences that utilize several areas of intelligences. The arts enhance cognition on the basic level of developing sensory perception such as sound, shape, color, light, composition, movement and body language (p.25).

My motivation for conducting this research stems from a strong interest in the concept of integration and the ways in which using the creative arts can help facilitate, support and contribute to different areas of learning. My background is in art education, and I first became interested in the arts and people with special needs during my studies. In order to explore this area more fully, I engaged in voluntary work with children with special needs including autism in educational settings that included a nursery in Saudi Arabia and a school in the United Kingdom. I have used different art forms such as painting, playdough and art materials to promote interaction, the use of fine motor skills and to teach concepts like colours and shapes. These activities seem particularly well-suited to capturing the attention of children with special needs and motivating them to engage in learning. My experience has inspired me to continue exploring this area of learning by focusing my PhD thesis on the topic of the creative arts and autism.

Over recent past years, it has become an increasingly popular strategy to integrate Social Stories with creative arts modalities such as music and drama, and to use them to help educate autistic children. The current study bases its rationale on addressing gaps in this area. It proposes that the theory and use of Social Stories with the creative arts is an emerging area of knowledge. As such, it lends itself to the idea of exploring professionals' knowledge and attitudes about using Social Stories with the creative arts for individuals on the autism spectrum. This study will hopefully encourage professionals to use Social Stories with the creative arts as a way of

developing knowledge, social interaction and communication skills in individuals with autism.

1.3 Research Questions

The study investigates the following questions:

RQ1. What are professionals' perspectives on the nature of using Social Stories for individuals on the autism spectrum?

RQ2. What are professionals' perspectives on the nature of using the creative arts for individuals on the autism spectrum?

RQ3. What are professionals' perspectives on the impact of using Social Stories in conjunction with the creative arts for individuals on the autism spectrum?

RQ4. How do professionals approach the use of Social Stories with the creative arts for individuals on the autism spectrum?

1.4 Research Aim

This study will examine professionals' perspectives on the nature of Social Stories and the creative arts as well as the impact of using Social Stories with the creative arts for individuals on the autism spectrum. It will also address the similarities and differences between these perspectives. The study will also investigate professionals' approaches and ideas about the practical use and the effects of combining Social Stories with the creative arts for individuals with autism spectrum. Additionally, a new framework will be developed to theorise the use of Social Stories with the creative arts. This framework will address the role of the creative arts in supporting the implementation of Social Stories for individuals on the autism spectrum.

My study aims to examine the perspectives of professionals who work with individuals on the autism spectrum, including children and adults. I have adapted the United Nations Convention on the Rights of the child (UNCRC)

definition within the research, which states that in the UK a child is anyone under the age of 18 (Unicef). To achieve the study aims in the quantitative phases I distributed questionnaires, and the findings for questions one, two and three showed that participants mainly only worked with children on the autism spectrum, and only a few also worked with adults.

In the qualitative sections of questions one, two and three, only participants who worked with children on the autism spectrum were interviewed. For this reason, the term “children on the autism spectrum” and/or “children with autism/ autistic children” are used when reporting the interviews findings. In the fourth question, all participants who took part in the quantitative and qualitative methods worked with children on the autism spectrum, so all of the findings concern children with autism. The term “on the autism spectrum” is used throughout the thesis as the literature shows it is the term preferred by most of the autism community (further elaboration will be discussed in the autism definition section).

The study uses third-person language because mixed methods writing is often characterized by this style (Freshwater, 2007). The third-person narrative is also used when presenting the study findings because it helps to draw the focus of the reader “on the process of research and gain a more objective outlook” (Zhou and Hall, 2016, p.11). I also used the first-person pronoun when necessary, for example to make my own perspective or experience clear to the reader (Zhou and Hall, 2016), to highlight what I will do in a section and to describe aspects of the methods I employed.

Chapter 2: Literature Review

2.1 Introduction

The purpose of a literature review is to provide a critical perspective on existing knowledge and to offer an overview of connections within the topic under investigation (Savin-Baden and Major, 2013). Gray (2009) argues that developing a literature review can help with the identification of gaps in knowledge that may be worthy of further examination. Exploring previous literature is therefore an essential part of the current research plan. In this study, it will help to understand debates concerning individuals on the autism spectrum, as well as models of disability. In addition, reviewing the benefits of using the creative arts for individuals with autism. It also help to develop a theoretical framework to analyse and make meaning of the data in relationship to the use of Social Stories and/with the creative arts for autistic individuals. This critical review of existing work helps to identify gaps in knowledge to formulate the basic idea of the research, which is to explore professional perspectives about the impact of using Social Stories with the creative arts for individuals on the autism spectrum, and the nature of the Stories and the creative arts that are or should be involved in the process.

2.2 Autism Spectrum: A Definition

The nature of autism has been examined by many researchers in different fields, who have explored issues dealing with terminology, causation and prevalence. The following sections will review key themes within these three areas.

The definition of autism is a contested and controversial area, and its language and labels continue to change over time (O'Reilly et al., 2020). Kenny et al. (2016) also argue that the scientific community suffers from discrepancies concerning the best way to conceptualise autism that result from the influences of movements such as disability rights and neurodiversity. Kenny et al. (2016) also state that:

Tensions surrounding the language of autism are attributable, in part, to the very different ways that autism touches people's lives; some experience it personally, others through their children and others still might only encounter autism in some aspect of their lives – at school, at work, in the community or through friends and family (p.1).

O'Reilly et al. (2020) also point out that the diagnosis and classification of autism in the DSM (Diagnostic and Statistical Manual of Mental Disorders) has been changing over recent years, influencing medical opinions on what autism means and what language should be used to define it. Two aspects of autism spectrum characterisation – social communication and social interaction – have now been combined under one domain, which is now represented as a new (DSM-5) category. Within this are “deficits in social communication and social interaction” and “restricted repetitive patterns of behaviour, interests, and activities” (Association, 2013, p.809). The DSM-5 category also includes a reference to sensory features as “hyper or hypo reactivity to sensory input or an unusual interest in the sensory aspects of the environment” under the restricted repetitive patterns of behaviour (ibid). This new categorisation has modified definitions of autism by focusing on two areas of deficit. The term spectrum has always been connected to autism to reflect the different ways autism impacts different people as well as degrees of severity (Perepa, 2013). In DSM-5, according to van Steensel et al. (2015), a single category of autism spectrum is used rather than the subcategories mentioned in the fourth edition (DSM-IV), namely autistic disorders, asperger's syndrome and pervasive developmental disorders not otherwise specified (PDD-NOS). These labels cover a wide range of information and can be interpreted by people in different ways (O'Reilly et al., 2020).

Autism is described in a variety of ways due to “differences in people's social and ideological beliefs” (Kenny et al., 2016, p.2). This leads to the continuance of debates around the appropriate terminology and language to use when describing autism. One area of debate centres on the use of person-first or identity-first language (Vivanti, 2020). Within the social model of disability, advocates have argued for the use of person-first language,

using expressions such as 'person with autism' because the attention is drawn to the individual's identity and humanity over their disability (Wright, 1983 cited in Bury et al., 2020). However, others argue that this use of language emphasises disability and perpetuates stigma (Bury et al., 2020). It also implies that disability is a 'bad' thing that needs to be separated from the person (Andrews et al., 2019). Gernsbacher (2017) argues that presenting the condition after the individual might draw people's attention toward this information. An alternative language supported by the neurodiversity movement is to use identity-first terms (Sinclair, 2013). The movement reframes deficits as differences and strengths rather than disabilities (Kapp et al., 2013). According to Kenny et al. (2016), diagnostic labels are seen as an integral part of people's identity. However, Lei et al. (2021) argue that the use of identity-first language "can also conjure up negative stereotypes and be stigmatizing" (p1349)". The literature shows that the issue of stigma can be evident in both person-first and identity-first depictions.

Although most of the literature uses the term Autism Spectrum Disorder (ASD), a modified term has started to emerge. According to Perepa (2013), the term Autism Spectrum Condition (ASC) has been taken up by some professionals due to its preference among some of the adults who are on the spectrum. Adults with autism prefer this term because they do not view their condition as a disorder (Perepa, 2013). Kenny et al. (2016) carried out a study to discover which terms are more favoured by the "autism community members" in the United Kingdom. Most people showed a preference for terms such as "autism" and "on the autism spectrum", and to a lesser extent, "autism spectrum disorder (ASD)" (ibid, p.12). Similar findings were reported by Bury et al. (2020), who found that Australian adults mostly preferred the following terms: autistic, autistic person and person on the autism spectrum over terms that include 'disorder' or 'condition'. A recent study in the UK by Lei et al. (2021) examined learners' views in two online courses about the use of terminology to describe autism. Findings showed that professionals favour different terms: person with autism, on the autism spectrum, autistic and ASD. Self-advocates and family/friends tend to prefer identity-first language such as the term autistic. The study also found that most of the participants' responses

were not consistent, indicating no specific preference to any of the used language and terminology.

For the purposes of this research, the term Autism Spectrum will be used. In some cases the term autism may be used as an umbrella term to refer to all types across the spectrum, but the main reason behind my choice of terminology is in the hope that it will help eliminate the stigma of disorder that has been assigned to those who have an autism spectrum condition. The study also considered mixing person-first language, such as individuals/children with autism with identity-first language as autistic individuals/children. This use of mixed terminologies respects the different preferences of people within the autism community, as studies by Lei et al. (2021), Bury et al. (2020) and Kenny et al. (2016) have shown that there is no uniform support for using person-first or identity-first language.

Perepa (2013) argues that the specific cause of autism spectrum conditions remains unknown. Hanbury (2012) indicates that research in three main fields – psychology, neurology and genetics – has been conducted in order to understand more about the causes of autism. Each field has connected different links to the autism spectrum condition. In terms of psychology, autism may stem from deficits in cognition, perception or understanding. Neurologists tend to associate autism with issues related to brain structure and neuro-chemicals responsible for conveying information. Genetic approaches consider autism to be caused by inherent genes (ibid). Such uncertainty about the causes of autism spectrum conditions indicates that the way in which individuals with autism are recognized requires reconsideration, and suggests that until the causes are known it is difficult to accept any single explanation regarding the cause of autism offered by different fields of knowledge.

The prevalence of diagnosis using the autism spectrum as a general term has demonstrated a dramatic increase (Dickerson, 2010). As Wing and Potter (2002) reported an annual increase in the diagnosis of autism of up to 60 per 10,000. Additionally, the prevalence of autism spectrum conditions within many countries has reached almost 1% of the population, according to the

American Psychiatric Association (2013, p.55). The reason behind this increase is currently still unclear; researchers associate the growing rates of autism diagnoses with factors such as increased awareness among professionals and parents, medical and diagnostic improvement and a widening coverage of different diagnoses under the umbrella definition of autism (Hanbury, 2012; Perepa, 2013; Wing and Potter, 2002).

This review has considered the complexity of the terminology and reflected on a number of factors covering the ways in which people on the autism spectrum are viewed. It has also remained sensitive to changing medical and diagnostic attitudes. I will now go on to discuss how some of these viewpoints reflect theoretical debates in terms of the models of disability.

2.3 Medical and Social Models of Disability

The medical and social models of disability are complex, and reflect an ongoing debate in terms of disability as a whole. Advocates of the medical and social models tend to use their own agenda to explain their beliefs and attitudes towards disabilities. The following section will provide a review of the medical and social models. A key factor within the literature review is to provide an indication of how I connect and orientate my research within existing theories of disability.

According to the medical model, disability is understood to be caused by physical or mental impairment (Dowling and Dolan, 2001). The medical model uses labels to describe the deficits of individuals with disabilities, and some authors argue that this use of labels can benefit individuals with disabilities within the education and service sectors. According to Bumiller (2008, p.969) "...the authority to label people as autistic is now solely in the domain of the medical profession in order to establish eligibility for services or exercise their rights to special education". Bricout et al. (2004) claim that interventions to reduce the effect of disability that follow the medical model may be seen as a valuable source for families. Interventions can provide individual care

packages for individuals with disabilities in different areas of need as well as providing families with emotional and material support.

However, there have been many criticisms of this perspective, mostly based on the way disability is understood in the medical model. According to Oliver (1996), the way disability is situated can be problematic, and Reindal (2008, p.141) claims that it “has promoted attitudes of paternalism and mechanisms of dependency at various macro levels within society”. Such large-scale pervasive forces within society have also been observed by (Bumiller, 2008, p.969) who argues that the medical model “process of labelling occurs despite a high degree of scientific uncertainty as well as the fact that autism is untreatable as a medical condition”. The medical model also tends to ignore other possible causal factors such as cultural, social and environmental aspects of the construction of the phenomena of disability (Reindal, 2008). The literature has identified merits in the medical model, but the model is still extremely problematic. I will now go on to examine the social model, which identifies some of these difficulties and explores them further.

The social model of disability emerged as a reaction against the medical model. According to Gallagher et al. (2014, p.1136), in the social model “disability is seen not so much [as] a problem in the bodies and minds of individuals, but rather a problem of societal access and acceptance of impaired (or ‘different’) ways of being in the world”. (Oliver, 1996) argues that this model does not reject the impairment itself, but attempts to promote a social change in viewpoint that would help society tackle issues relating to disability instead of focusing purely on medical remedies. The social model also encourages the inclusion of disability in education by emphasising modification within the learning environment (Matthews, 2009) to accept individual variations. Bricout et al. (2004) point out that areas such as social class and culture are given more consideration within the social model.

However, there are also limitations associated with the social model. Oliver (1996) indicates that when disability and impairment are seen from the perspective of the social model, no causal link is established between them, despite the fact that impairment is often associated with pain, anxiety and

irritation – feelings that cannot be resolved through social changes (Linton, 1998). Reindal (2008) further argues that the social model has been criticised for over-socialising the idea of disability. Furthermore, authors such as Gallagher et al. (2014) consider that the social model cannot be applied to all categories of disability, concluding that the social model is grounded more on physical disability and that it has been oversimplified to include all disabilities. However, the social model offers a more promising avenue of exploration and entitlement from the standpoint of disability advocates, and has been used to create changes in society in areas such as access and inclusion in education.

As the debate continues between the medical and social models, other bridging models have emerged, such as the biopsychosocial model, which aims to connect medical and social models to present a more holistic approach Petasis (2019) argues that this model “accepts the provisions of both the social and the medical models, although it assumes that these provisions are not adequate by their own, as these are interrelated” (p42). Bath et al. (2014) conclude that the model is based on the interaction between these biological/physical, psychological and social factors. Authors such as Kenny et al. (2016, p.18) suggest that:

Perhaps we should move towards an integrated biopsychosocial model of disability which echoes the recommendations outlined by the World Health Organization (WHO, 2001) in their International Classification of Functioning and Disability framework (ICF), a system that identifies an individual’s health, care and service-related needs as well as the effect of the physical and social environment on the disadvantages that they experience in their lives.

This integrated model may represent a more advantageous way of constructing research in relation to individuals on the autism spectrum. Having explored the different disability models, we now turn our attention to this issue.

2.4 Social Stories: A Definition

According to Gray (1998, p.171), a Social Story is “a short story that adheres to a specific format and guidelines to objectively describe a person, skill,

event, concept, or social situation". Meanwhile, Lal and Ganesan (2011) refer to the idea of a Social Story as an individualized short story created to describe a specific situation by focusing on relevant social cues. In other words, a Social Story is a story that follows specific criteria to explain social information in a meaningful way that can be readily understood. These definitions highlight the main criteria that distinguish Social Stories from other stories. Social Stories can be used for a variety of purposes. Kuoch and Mirenda (2003) argue that they can be used to help individuals with autism adapt to changes in their routines, to teach them what other people might be feeling and thinking in specific situations, and to explain particular social skills.

According to Gray (2015), the design of a Social Story should follow specific guidelines. Gray mentions that writing a Social Story involves using two types of sentences: descriptive sentences that "accurately describe relevant aspects of context" (p.liv) and coaching sentences, which "gently guide behavior via descriptions of effective Team or Audience responses, or structured Audience Self-Coaching" (p.lv). The two types of sentences are used to communicate different information within a Social Story. The creation of a Social Story also involves breaking down a challenging social situation into comprehensible steps and excluding unrelated information (Lal and Ganesan, 2011). The Social Story information must be written in a clear and concise language to help reduce any misunderstanding regarding certain behaviour (Agosta et al., 2004). Careful consideration of wording when designing Social Stories will help "to increase understanding of social situations, enabling one to demonstrate appropriate behaviors, reactions, and responses" (Hanley-Hochdorfer et al., 2010, p.485). The design of Social Stories requires specific procedures and the use of specific types of sentences and formats.

Gray (1998) argues that the function of a Social Story is to explain and clarify any ambiguities surrounding unclear social situations, rendering them more easily comprehensible and readable for individuals with autism. Gray (2004) also emphasises that Social Stories are not a method designed to change behaviour in their own right, but they help to offer social understanding that will lead to behavioural developments. Reviews of literature on the used of Social Stories shows that it is usually teachers and researchers who consider

whether or not an autistic individual's behaviour is 'appropriate' and then decide on what intervention to be use with them. The findings of a meta-analysis by Kokina and Kern (2010) show that Social Stories are mainly used to reduce inappropriate behaviour or to improve social skills. However, few studies have addressed other areas, such as examining the use of Social Stories to help develop the knowledge of autistic adults on four areas: residential, vocational, educational and recreational (Richter and Test, 2011) or to address difficulties experienced in unfamiliar situations (Ivey et al., 2004). This area of research shows that there is more attention from neurotypical individuals, usually carers, towards developing the behaviour of autistic individuals, which might reflect the influence of the medical model. Breakey (2006) argues that individuals on the autism spectrum are often seen as being in need of "medication and requirements for their outward behaviour to conform, or to be socially 'acceptable' or 'appropriate', regardless of the reasons for their behaviour or how they are feeling". The idea of medication is also evident for example, in a Social Story study by Amin and Oweini (2013, p.109) stating that they "targeted the specific skills that need remediation". This type of attitude and outlook sets too much emphasis on remedial work and can be associated with practices of 'curing' autistic children to make their behaviour as much like that of children without autism as possible. It also highlights the tension between neurotypical individuals and autistic individuals which can be linked with the double empathy problem that "refers to a breach in the 'natural attitude' that occurs between people of different dispositional outlooks and personal conceptual understandings when attempts are made to communicate meaning" (Milton, 2012, p.4). Milton (2012) argues that neurotypical and neurodiverse people lack understanding and empathy for each other's ways of thinking, but there is more effort on the part of autistic people to gain insights into neurotypical society. Meanwhile, the lack of any significant attempts by neurotypical researchers to understand and accept the ways of thinking of autistic people might be a key to why Social Stories are widely used as a way to develop or 'modify' the behaviour of autistic individuals and to sometimes see autistic behaviour as being inappropriate. According to Jaarsma and Welin (2012), the neurodiversity movement argues that autism should not be considered as a disability, but recognised as a

normal behavioural variation. This view may eventually influence the way the behaviour of individuals with autism is recognised and perceived. An example provided by Vannest et al. (2013) helps to explain the way educators should deal with autistic individuals' behaviour: "If pencil tapping is tremendously annoying to a teacher, but not interfering with a student's learning, then perhaps this behaviour is less valid for change" (p.19). This example offers more respect to the variation in responses that individuals on the autism spectrum reveal. Another approach that supports autistic people is to consider their interest or 'restricted interests' as strengths that can help them to learn and develop socially and academically. Wood (2019) argues that incorporating the interests of autistic children into the learning process helped them to overcome issues related to concentration and motivation as they become more focused on tasks. This approach also benefits autistic children by "helping them to cope with the stress of school, improved communication, better access to the curriculum and tests, greater independence, more socialisation and overall enjoyment of school" (ibid, p.99). Wood (2019) also found that autistic adults "had overcome social difficulties experienced in early school years when they developed shared interests with other children". These findings show that focusing on the interests of individuals on the autism spectrum can bring many benefits to them. The inclusion of interests should be considered at greater by people who use Social Stories. Meanwhile, the behaviour of autistic individuals should not be a barrier to learning, as the way they behave can guide their learning and inspire them.

I propose that the combined use of Social Stories with the creative arts can have a positive impact on professionals' ways of working, as they can use various creative modalities to meet the preferences of autistic individuals. Professionals can use different types of creative art with Social Stories for a group of children by drawing on their shared interests. They also can use the creative arts to provide other ways of communicating the information within Social Stories by using nonverbal communication such as symbols, movements and actions. Incorporating the creative arts into Social Stories can also offer professionals various ways of evaluating autistic individuals' understanding of the Stories, for example by discussing their drawings or

observing their actions during a role-play exercise.

Autistic individuals can show a wide range of interests in the creative arts, so including them when using Social Stories can support the idea of an interest-led approach. The impact of integrating the creative arts with Social Stories can be in stimulating and engaging different sensory preferences for individuals on the autism spectrum, enabling them to gain more enjoyment through active participation. Other beneficial impacts for individuals with autism can range from increasing their concentration levels and motivation to consolidating their understanding and their ability to recall information from the Stories. Using creative arts can also help individuals on the autism spectrum to communicate their understanding and to reproduce its content through performance. The creative arts offers a safer and less socially challenging environment than the outside world, and in this environment individuals with autism can practice any social skills presented in the Social Stories. Using the creative arts can also stimulate the imagination of individuals on the autism spectrum, enhancing their creativity and abstract thinking capacities when exploring different scenarios within Social Stories.

2.5 Professionals' Perspectives on Using Social Stories for Individuals on The Autism Spectrum

One way of examining the usefulness of any teaching method is through understanding professionals' views and attitudes towards it. Examining the issues and arguments that professionals have from their experience of using Social Stories can help in providing them with the support they need. The literature includes studies that have examined professionals' perspectives on using Social Stories, for example Asiago (2019), Aldawood (2019), Wright et al. (2016), Alotaibi et al. (2016), Dev (2014), Reynhout and Carter (2009) and Ventimiglia (2007). This section will discuss these studies in order to address professionals' opinions on the use of Social Stories for individuals on the autism spectrum.

Asiago (2019) examined special education teachers' experience of using

Social Stories as intervention strategies to reduce negative behaviours in preschool children with autism. The study used constructivist and social learning theories; ten teachers were interviewed and three of them were observed in the workplace. The study concluded that participants showed variations in the way they experienced using Social Stories based on the type of behaviour being addressed, the timing of the use of Social Stories and whether they were implemented alone or combined with other support strategies. Participants' views varied on whether the application of Social Stories was more effective when they used with or without other intervention methods. However, the consensus was that the degree of effect depended on appropriate and consistent use, the individual child and the targeted behaviour. The study also identified barriers that limited the efficiency of using Social Stories for children with autism that were based on the children's inability to attend or understand the Stories. Other barriers were linked with the limited time and resources available for teachers to plan and implement Social Stories. In addition, a lack of communication between school and families was also cited.

Aldawood (2019) explored the way in which elementary special education teachers approached the use of three intervention strategies – one of which was Social Stories – when teaching social skills for students on the autism spectrum. The study used social learning theory; seven teachers were interviewed, and Aldawood's findings revealed that they used formal and less formal assessment tools to find out what social skills students' needed to develop. The participants' also collected data to assess students' development related to the desired social skills. All the participants reported using Social Stories, but the way they created them deviated to some extent from Gray's (2004) guidelines. They used premade Stories or adjusted pre-existing Stories to meet individuals' needs and create their own Stories. Additionally, some participants' combined Social Stories with videos. Participants also reported barriers associated with using Social Stories – such as not having sufficient time to create adequate and individualised Stories. Another barrier was linked with the students' cognitive abilities, which meant that it might be difficult for them to understand the Stories.

Part of a large-scale study by Wright et al. (2016) was aimed at collecting information concerning the best way to design and use Social Stories for children with autism. The study also explored users' perceptions of the feasibility of delivering Social Story interventions within the UK context to make sure that the method was acceptable to people who provide and use it. Sample responses were gathered from a range of professionals, carers and autistic children. The study was implemented in two stages, the first of which focused on the design and content of a preliminary Social Stories manual. Data were collected using focus groups and individual interviews. The second stage included gathering feedback on the draft contents of the Social Stories training manual. Data were collected using focus group interviews. The study's findings showed that participants drew on a number of suggestions covering the design and delivery of Social Story based interventions. It concluded that teaching assistants and parents would develop the Stories and recommended that the Stories be delivered in a quiet location. Another outcome was related to the focus of the content, concluding that the Stories should not only cover areas relating to challenging behaviours but should also consider the development of socially appropriate behaviours. Other findings focused upon the format of the manual, its content and aspects of training.

Alotaibi et al. (2016) explored teachers' perspectives on using Social Stories for children with autism in Saudi Arabia. Semi-structured interviews were used involving fifteen male teachers, and findings showed that participants were familiar with the concept of Social Stories. They also reported obtaining Social Stories from variety of sources and using different modes of presentation. Different barriers were outlined, perhaps the most significant of which was linked with the absence of relevant cultural content that was specific to the context of Saudi Arabia. The participants also referred to a number of factors that would contribute to the more effective use of Social Stories, such as presenting Social Stories through different media and combining them with other intervention strategies.

A study by Dev (2014) aimed to explore the ways in which teachers design Social Stories and to understand their perspectives concerning the impact of these Stories for students on the autism spectrum. Six female teachers were

interviewed. The results showed that all of the teachers agreed that Social Stories are useful in helping them deal with different behaviours for their students on the autism spectrum as well as non-autistic students. However, one teacher stated that she found that Social Stories were most useful for students with high-functioning autism. Teachers discussed using Social Stories with other learning strategies such as peer-modelling, role-play, teacher prompts and visual or auditory aids. Teachers believed that when they used these strategies with Social Stories it led to more positive effects on students with compared with using Social Stories on their own.

The study also explained how role-playing could be used with Social Stories and identifying those who were usually involved in the plays. For instance, performances were written in order to help students on the autism spectrum to stop fighting when they shared art materials. The Stories were usually modelled by students, teachers and adults in the classroom. Although the study provided some details on how Social Stories are used with role-play, it lacked extensive details on why and how they are used and their usefulness with individuals on the autism spectrum. The current study explores the areas where information is missing and examines in depth how professionals use Social Stories with different types of creative arts (visual art, drama, music and dance). This study is intended to provide a more holistic picture of the way Social Stories are utilised in conjunction with the creative arts for individuals on the autism spectrum.

Reynhout and Carter (2009) explored the ways in which teachers use Social Stories for children on the autism spectrum and how they view their practices. The study sent out 105 questionnaires, but only 45 were returned, which included 81 samples of Social Stories. The data showed that Social Stories were mostly used to teach social skills, to reduce inappropriate behaviour and to introduce changes or new routines. The majority of the teachers indicated that they used a comprehension session and fading strategies in conjunction with the Stories. According to the questionnaire, most of the teachers considered Social Stories to be “very effective” or “somewhat effective”. However, teachers were not sure about the effect of the Stories on the maintenance and generalisation of the children’s behaviour.

Meanwhile, an analysis of the sample of Social Stories indicated similar results to those found by the questionnaire respondents. Comprehension sessions were implemented with 65% of the sample Social Stories. Other intervention strategies were used with 86% of the sample Social Stories, and it was found that in 44% of the sample Social Stories, attempts were made by teachers to generalize behaviour using Social Stories. Most of the Social Story samples were combined with visual support methods such as photos, line drawing and symbols, and most of the teachers rated the sample Social Stories as either “very effective” or “somewhat effective”. The results showed that there was not a great deal of difference in rating the usefulness of Social Stories as very effective in relation to their use in comprehension sessions, attempts at generalization, using the Stories with other intervention strategies and making the Stories available for students to access. Teachers reported that individual levels of autism and receptive language skills did not have much effect on the usefulness of Social Stories, although cognitive ability and expressive language skills did seem to have an effect.

The 2007 study by Ventimiglia (2007) focused on professionals’ attitudes and the use of Social Stories with children on the autism spectrum in classroom settings. 30 surveys were distributed covering the purpose of using Social Stories and their effect on children’s social, behavioural, academic and communication abilities. The findings indicated that only 19 surveys were returned. Most of the participants had at one time or other used Social Stories and found them useful with students on the autism spectrum and students with other special needs. The most common reasons for the use of Social Stories were personal grooming and hygiene, following routines, dealing with emotions and calming. The majority of participants reported positive social effects when using Social Stories with children on the autism spectrum. A few respondents reported positive effects on behaviour, academic skills and communication.

The studies discussed above provide valuable information about professionals’ everyday practice using Social Stories in the natural learning environment. For example, Social stories were used to target different behaviours and were implemented in variety of ways. Generally, Social

Stories were seen as a useful strategy but there are different factors and barriers that might influence their efficacy. The literature shows that some studies explored teachers' perceptions related to Social Stories with and without theoretical bases. The current study builds on previous studies that examine professionals' perspectives, but it looks at particular aspects of the experience of Social Stories from a different framework. The findings of previous studies on professionals' views contain limited information and have not explored many areas concerning the nature of using Social Stories for autistic individuals, which therefore remain unidentified. This thesis theorises that within social learning theory the observational learning process includes four stages: attention, retention, reproduction and motivation, which can be used to help explain the mechanisms behind Social Stories. The thesis will focus on these four stages to investigate the ways in which professionals' views and explanations of Social Stories and change reflect the concepts and processes of observational learning. The study also mainly focuses on understanding the way professionals perceive the nature of Social Stories for individuals' with autism from a theoretical point of view in order to identify if these professionals are fully aware of the mechanism behind it and the ways in which this understanding and awareness is reflected in their practice. This exploration was examined within a framework in order to assess the anticipated impact of using Social Stories with the creative arts.

2.6 Using The Creative Arts for Individuals on The Autism Spectrum

The creative arts represent a separate method used with individuals on the autism spectrum. The following section will cover areas related to the concept of creativity and the creative arts. Following that, a discussion of the benefits of using the creative arts for individuals with autism will be offered.

The concept of creativity can be interpreted differently based on the subject being studied. Webster (2010) states that "creativity is subjective" (p.2). This means that it depends on the way individuals identify the production of an object or an idea as being creative or not. Ross (1978) argues that "creativity

is not merely the capacity for certain kinds of ‘productive’ action – it is a quality of being; a mode of cognition” (p.14). This can be linked to the way May and Warr (2011) recognise creativity. They understand it as a process of thinking that involves the ability to deal with abstract or concrete concepts using different strategies. Webster (2010) considers that “being creative is how a person may demonstrate what they have learn through a creative method” (p.2). This means that learners may express their understanding more thoroughly through the use of different creative methods, any one of which may involve the use of the creative arts.

The creative arts, according to Mills (2014, p.1), represent “activities that actively engage children’s imagination through art, dance, dramatic play or theater, puppetry, and music. The creative arts engage children across all domains: cognitive, language, social, emotional, and physical”. From this perspective, the creative arts can be seen as dynamic components that can be used to enhance learners’ abilities when it comes to understanding, acting and feeling. In this study, the term *creative arts* refers to the use of visual art, drama, music and dance used alongside different learning activities to stimulate cognition, social interaction, communication and psychological wellbeing for individuals on the autism spectrum.

The literature argues that the use of the creative arts can be beneficial for individuals with special needs. Edwards (1990), for example, considers that art provides various mediums that children with limited language ability can use to express themselves. Sherrill and Cox (1979) indicate that participating in the creative arts activities can be a valuable experience for children with special needs because every response is appreciated in a positive way. Ross (1978, p.37) states that “image-making keeps the imagination alive”. This can be illustrated very well by using drama, Mills (2014, p.2) shows that “when children are engaged in dramatic play, their imagination and creativity levels soar because they adopt certain roles related to specific characters or individuals”. Ross (1978) believes that the use of image making can provide a tool that helps with the understanding feelings and their underlying meanings, which in turn shows that the use of the creative arts for learning and developing different skill acquisitions can be useful for individuals with special

needs.

The use of the creative arts with individuals on the autism spectrum can offer a wide range of benefits. Round et al. (2017) found that artistic activities helped to increase the concentration levels of two participants. A feasibility study by Beadle-Brown et al. (2018) focused on using drama through participatory play, games and improvisation of various multi-sensory themes, implemented in a portable tent-like structure. Findings revealed that teachers and parents were very satisfied with the intervention, as the children engaged and enjoyed being in the multi-sensory environment. O'Leary (2013) also argues that different projections – such as masks, puppets and role-play – can provide a way to help autistic children to communicate indirectly when they find it difficult to express themselves directly. Eren (2015) also points out that children with autism can use music as a non-verbal form of expression to overcome verbal communication difficulties. Trevarthen (2002) believes that the use of music with individuals on the autism spectrum can lead to a reduction in stress levels. Souza-Santos et al. (2018) found that “dance aroused interest and curiosity, as well as expression and emotion” (p.290). The literature shows that engaging with different forms of the creative arts is very likely to be beneficial, which led this study to explore professionals' perspectives on the nature of using the creative arts for individuals' with autism within a specific framework, addressing the impact of using the creative arts with Social Stories.

2.7 Using Social Stories With The Creative Arts for Individuals on The Autism Spectrum

The use of Social Stories in conjunction with the creative arts represents an alternative approach to assisting individuals on the autism spectrum with specific aspects of their learning and development. This means using Stories that involve a form of the creative arts as part of their delivery to stimulate cognition and encourage social interaction, communication and psychological wellbeing for individuals on the autism spectrum. A review of the literature

revealed that some studies have examined the effect of using Social Stories in conjunction with music (Brownell, 2002; Cowan, 2016; Fees et al., 2014; Iliff, 2011; Pasiali, 2004) and role play (Chan and O'Reilly, 2008; Dinon, 2013). This section will offer a discussion and a review of these studies.

Studies examining the use of Social Stories with music were undertaken by Cowan (2016), Fees et al. (2014), Iliff (2011), Pasiali (2004) and Brownell (2002). The study by Cowan (2016) examined the impact of using musical Social Stories for autistic children in a small group setting. ABA design was used and four participants took part. They were divided into an intervention and a control group, which received unrestricted music format. Participants were also paired with college-aged friends. The study targeted behaviours such as smiling, eye contact and imitation. Three musical Stories were created, focusing on the theme of happiness. Original music was composed for two Stories, and the third Story was set to the tune of a song. Different instruments were incorporated with the intervention, such as “egg shakers and rhythm sticks, laminated and projected pictures, and choreographed motions” (ibid, p.92). As well as singing, Social Stories participants engaged in movement activities, played with musical instruments and engaged in social interactions with each other. Findings reveal that one participant smiled more often and the other participant’s imitation behaviour increased.

A pilot study by Fees et al. (2014) examined three teachers’ views of a training session on using Social Stories songs in an inclusive preschool group. The teachers used a Social Story song with a group of neurotypical children and children with “diverse developmental exceptionalities” (ibid, p.9) including autism. The Story was designed to teach the children a social skill (patience while waiting). The reading and the Social Story song were both created to cover the same behaviour, although the text information for the Story differed from the Story’s song lyrics. Instruction was given to the teachers to read and sing the Social Story no less than twice during each group session. The layout of the Social Story song consisted of “two verses and a chorus set to a familiar tune” (ibid, p.11). Some sections of the chorus were left blank for the teacher or students to add their own ideas. Asterisks were also put on some words of the second verse so that students’

suggestions could be included. The tune was set to the Social Story song by using a technique called piggybacking, which means “adding new words to a familiar tune” (Kern et al., 2007, cited in Fees et al. 2014, p.46). The aim of using a familiar tune is “to make it easier for the teachers to learn and retain the song as well as to promote retention in the children” (ibid, p.11). Only the chorus of the song was taught to the children.

The Social Story song was implemented firstly during group sessions which began with a discussion of specific questions, related to waiting before the chorus and first verse of the song was sung. After that, another set of questions about patience and waiting were discussed and then the second verse of the song was sung, “incorporating suggestions for the children if possible” (Fees et al., 2014, p.13). If a child showed inappropriate response during the week, the teachers would wait five seconds and then sing the chorus again. If the child was still having difficulty with waiting, the teachers would offer a prompt. The findings showed that teachers viewed the use of the Social Story song as an effective method of intervention to help teach a group of children about waiting. In the case of children on the autism spectrum, the intervention was beneficial in helping a child with autism to regulate her own behaviour. Fees et al. (2014) argue that this example showed that using a musical Social Story for a child with autism could lead to positive changes in his or her behaviour.

Pasiali (2004) used ‘prescriptive therapeutic songs’ with three autistic children at home. The aim of using Social Story songs was to increase and reduce specific types of behaviour. The Social Stories were set to a tune that the children enjoyed. Three musical instruments were also used: “shaker eggs, a pair of small size maracas and a classical guitar” (ibid, p.13). The intervention procedure involved “listening, playing rhythmic instruments and singing” (ibid, p.13). These three steps involve “the auditory, visual and kinesthetic aspects of listening to music and playing musical instruments [which] encouraged alertness and active responses” (ibid, p.13). I believe that this is a good example of how music can be associated with the multiple intelligences theory. The researcher began the session by singing the song accompanied by a guitar. Then a child played with one of the other musical instruments as

the researcher continued to sing and play the guitar. Finally, the child was given a sheet with the Story lyrics on it, and he/she sang along with the researcher who played the guitar. This step was modified based on different participants' abilities, as some of them "either mouthed the words along with the song, or pointed to the words on the lyric sheet" (ibid p.14), or memorised the song "and sang portions of the song" (ibid p.15) or "the final word of each song phrase" (Pasiali, 2004, p.16). The results were promising and an improvement in participants' desired behaviour occurred during the first phase. However, it was difficult to determine the overall level of effectiveness of the intervention due to "a lack of clear evidence" (ibid, p.17)". According to Pasiali (2004), some of the limitations that could affect the findings may relate to the study design. Additionally, the participants' parents were involved in the intervention, in which they were responsible for collecting the data. This may have caused bias because the parents were able to anticipate the study outcomes.

Brownell (2002) and Iliff (2011) examined the effect of using Social Stories in written and song formats on the behaviour of students with autism. The reasons for using music with Social Stories was to make the musical Stories more appealing, easy to recall (Iliff, 2011), and to increase "student involvement, attention, and repetitions" (Brownell, 2002, p.125). Both studies used Social Story texts as a lyric for the Story songs. Illustrations were added for the Social Stories and the song. However, the studies differed in several core elements, In Iliff's 2011 study, musical Social Stories were set to popular tunes, while original music was composed for Brownell's (2002) study. When Brownell (2002) sang the Social Stories he used a guitar with some participants, but no instruments were used by Iliff (2011). The findings in Brownell (2002) study indicate that Social Stories were effective in modifying the behaviour of autistic children with and without music. It was also found that when music was used in conjunction with Social Stories, the desired behaviour was shown less frequently. However, the results were different in Iliff's (2011) study as the Social Story showed a moderating effect, while the musical Story was ineffective.

The use of Social Stories with role play was examined by Dinon (2013) and Chan and O'Reilly (2008). These studies all investigated the effect of using Social Stories with role-play on developing the social skills of children with autism. Both studies followed similar procedures: reading the Social Story, asking comprehension questions and role-playing. After the Story was read, comprehension questions were asked. If the participant provided a 'wrong' answer, the 'correct response' was prompted (Dinon, 2013) or the student was instructed to reread the section of the Story (Chan and O'Reilly, 2008). However, the final stage was implemented differently in both studies. Dinon's (2013) study, the researcher read a role play prompt that described a social setting, asked a question and then the participant acted out "what he or she would say in the situation" (p.15). In Chan and O'Reilly's (2008) study the role play session was introduced by the researcher, who verbally described the social situation within the Story. The role-playing involved three actors, an instructor, a child with autism and an adult. Chan and O'Reilly (2008) also used verbal prompts if it was difficult for the participant to complete any of the three stages. Praise also was provided when the participants successfully completed each stage. The results of the studies showed that the intervention was an effective method in developing the desired behaviours. However, only Chan and O'Reilly's (2008) study reported that participants were able to maintain the learned behaviour for up to 10 months. Although the studies proved the usefulness of using Social Stories with role play, "one cannot be certain if the outcomes were a result of the Social Stories alone, the role play alone, or were in fact a result of the combination of the two interventions" (Dinon, 2013, p.27).

The studies described above show that when used with other interventions such as music and role-play, Social Stories could encourage children on the autism spectrum to develop changes in their responses and behaviours. The present study will explore professionals' perspectives on the impact of using Social Stories in conjunction with various types of creative arts. In addition, the study will examine how professionals approach the use of the creative arts with Social Stories for individuals on the autism spectrum. The point of this is to offer a deeper understanding of such uses and discover whether other

types of the creative arts, such as dance, could be used in conjunction with Social Stories. This study also theorises that the use of Social Stories in conjunction with the creative arts can be beneficial because it prompts the use of the multiple intelligences of individuals on the autism spectrum. Further elaboration on the usefulness of combining Social Stories with the creative arts are provided in the next section under the theoretical framework.

2.8 Theoretical Framework

A theoretical framework can be considered as “a theory that works with the philosophical lens in a complementary theory way” (Savin-Baden and Major, 2013, p.134). Designing theoretical frameworks can help researchers focus on relevant theories and obtain a balanced perspective on different debates relevant to their studies. The literature argues that the role of theory within qualitative research fulfils different purposes. Its first role is to orientate and situate research within relevant fields of knowledge. Theory can also deepen the understanding of the aims of the research and help locate it within relevant theoretical debates. Savin-Baden and Major (2013) state that researchers can also “test theories, use theories to guide data analysis or generate theory” (p.133). In other words, theory can be useful in explaining relationships between phenomena and can lead researchers to develop new insights into existing theories. In terms of the current research, the use of theory will help to gain a clearer access to professionals’ understanding of the ways in which Social Stories and the creative arts can bring positive changes for individuals on the autism spectrum. A theoretical framework can also help to locate current issues and questions within existing theories, and to create a dialogue between them. Additionally, referring to existing theories or theoretical frameworks can help explain and interpret the findings of any new research. The following sections will provide an overview of the way Social Stories are theorised within the literature, and the theoretical framework of the study will subsequently be discussed.

There are many debates and discussions concerning theories in relation to Social Stories. For instance, Gray’s initial work on Social Stories

demonstrates the rationale behind the design of a Social Story. Gray and Garand (1993) state that the Social Story “is based on the growing understanding of social cognition in autism, and a belief that this understanding should be reflected in how social behaviour is taught to students with this disorder” (p.2). Gray’s early work offered a rationale with no real theoretical engagement, suggesting that the underlying rationale for Social Stories is their inherent ability to explain how they can be useful in teaching autistic individuals about social situations. This point of view is exemplified by the way Gray explains the purpose of using Social Stories: “Social Stories seek to minimize potentially confusing instructional interactions, to provide students with autism direct access to social information” (Gray and Garand, 1993, p.2). Although this demonstrates the rationale behind the use of Social Stories with individuals on the autism spectrum, it does not explain from a theoretical perspective the mechanisms that underlie the changing situations in which they are used. However, Gray later links her rationale for using Social Stories by drawing on theories that underline the cognitive “deficits” of individuals on the autism spectrum (Gray, 1998). One of these theories is the theory of mind, which covers individuals with autism and their “difficulty reading emotions, intentions and thoughts” (Peeters, 1997, p.83). The other theory used by Gray is central coherence, or “pulling information together from higher-level meaning” (Happé, 1999, p.217). Gray argues that the apparent deficit experienced by individuals on the autism spectrum relates to the theories of mind and central coherence, which affect their ability to understand and read social cues. Based on this understanding, Gray draws on Peeters (1997) and Happé (1999) to develop a link with the notions of theory of mind and central coherence, connecting them to Social Stories. She argues that Social Stories explain and clarify the ambiguities of unclear social situations, rendering them more easily comprehensible and readable for individuals with autism (Gray, 1998).

However, cognitive theories such as the theory of mind and central coherence, according to Demiri (2004, cited in Reynhout and Carter, 2011, p.374) “do not adequately explain the functional relations between Social Stories and target behaviour”. This means that cognitive theories do not

specifically consider the ways in which Social Stories develop change for individuals on the autism spectrum. Reynhout and Carter (2011) argue that “while it is possible that perspective sentences embedded within Social Stories may assist in addressing theory of mind problems in individuals with autism, there is currently limited evidence relevant to this issue” (p.370). The usefulness of Social Stories in dealing with limited central coherence is also still an unproven assumption (Reynhout and Carter, 2011). This shows that there is no proven relationship based on cognitive models. Therefore, questions and limitations still remain regarding the validity of using cognitive theories as a rationale for Social Stories when working with individuals on the autism spectrum. Such limitations show the continuing need to develop an effective theory to help explain whether and how Social Stories work for individuals on the autism spectrum and how they can stimulate changes in their responses.

Behaviourism is an alternative theory that has been associated with Social Stories. Behaviourism, according to Skinner (1974), is based on the idea of operant conditioning and the use of different types of reinforcement to help shape behaviour. Skinner states that “the conditions under which a person acquires behaviour are relatively accessible and can often be manipulated” (p.44). Rota (2011) draws on behavioural theory to argue that Social Stories work by manipulating children’s antecedent behaviour to help them adapt to change, stating that “the Social Story becomes the stimulus and the response is the desired behaviour” (p.33). From the perspective of behaviourist theory, the Social Story is seen as a stimulus that promotes changes in individual behaviour. In this respect, the use of Social Stories can be theorised as a way of engaging individuals on the autism spectrum to promote a desired behaviour via learning experience. Although behaviourist theory is linked with the theorising of Social Stories, they appears less effective in this light because the theory does not consider the role of cognitive processes in learning behaviour (Sigelman and Rider, 2014; Thompson, 2013). Consequently, the literature on theorising Social Stories from a behaviourist perspective does not in itself justify the relationship between cognition and behaviour in promoting change. Another limitation, as Bandura (1977) argues

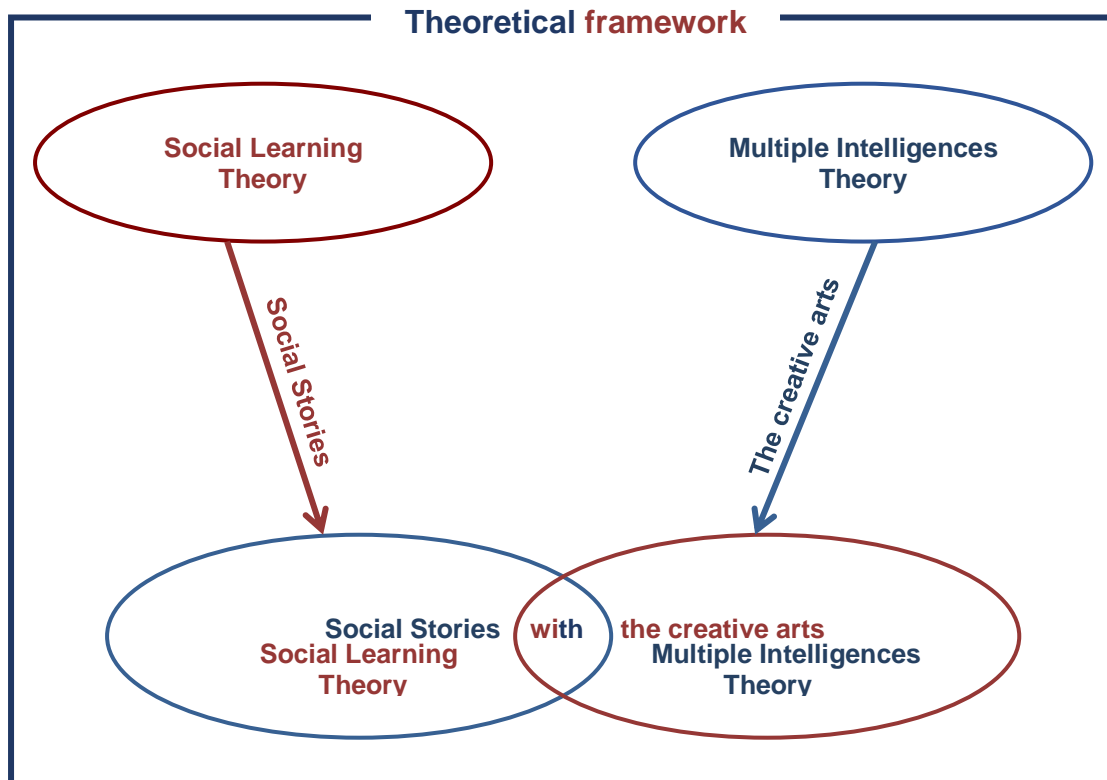
that:

Skinner's analysis clarifies how similar behaviour that a person has previously learned can be prompted by the actions of others and the prospect or reward. However, it does not explain how a new matching response is acquired observationally in the first place (p.6).

These limitations lead this study to propose that social learning theory would be more helpful in offering insights into the mechanism behind Social Stories and the way in which they influence and have their intended impact upon autistic individuals. This will be elaborated further in the next section.

The following section discusses a novel theoretical framework that is used to underpin my research. This study suggests a combination of social learning and multiple intelligences theories, which will be used to help offer greater insights into the theoretical underpinnings of Social Stories and the creative arts. The selection of two theories to develop a single theoretical framework helps to explain the way Social Stories and the creative arts theories bring about change in the responses of individuals on the autism spectrum (Figure 2.1). It can also help show the way Social Stories work, and the ways in which incorporating the creative arts can further support implementation of the Stories and help individuals with autism to develop their behaviour and actions. This understanding will be justified by linking existing examples from the literature on Social Stories and the creative arts for individuals on the autism spectrum to form a broad theoretical perspective.

Figure 2.1 Theoretical framework



While social learning theory may explain the mechanism behind Social Stories and the way they influence change in responses, multiple intelligences theory can be used to demonstrate the role of the creative arts in learning. This research will use these two theories together as a new theoretical framework to explore professionals' views and practices concerning the use of Social Stories with the creative arts for individuals on the autism spectrum.

2.8.1 Social Learning Theory

Social learning theory can be used to explain the role of observational learning in the modelling and development of different forms of social behaviour. Bandura (1969) states that "observational learning entails symbolic coding and [the] central organization of modelling stimuli, their representation in memory, in verbal and imaginal codes, and their subsequent transformation from symbolic forms to motor equivalents" (p.127). This helps demonstrate

that cognitive and behavioural mechanisms of modelling behaviour occur as a result of observation. To understand the procedure of learning through observation, Bandura (1977) argues that “by observing a model of the desired behaviour, an individual forms an idea of how response components must be combined and temporally sequenced to produce new behavioural configurations” (p.8). This can be seen in the way observers react after analysing a model and how this can lead to the adoption of new behavioural strategies. There have been studies examining the effects of observational learning using generic stories, and the findings of Alvord and O’Leary (1985), and Klingman (1988), concur with Bandura’s theory. Social Stories are also linked with social learning theory – see for example Asiago (2019) and Aldawood (2019). This study argues that social learning theory can be useful for creating a framework explaining changes that occur when Social Stories are used.

There are different approaches to learning through observation. Observational learning can be acquired “through exposure to behavioural modelling cues in actual or pictorial forms” (Bandura, 1969, p.145), which points to the idea that modelling behaviour can be analysed in different ways, either in real or symbolic terms. Symbolic modelling can be produced in different ways, generally either in words (Bandura, 1977) and/or pictorial formats (Alvord and O’Leary, 1985). This demonstrates the variety of theoretical approaches that are used in producing symbolic modelling. The way Social Stories are created can be seen as a form of symbolic modelling which can be linked to Brownell’s (2002, p.121) description of Social Stories as something that “may be presented solely as printed words [or in] words and pictures”. Social Stories can provide the modelling stimuli that help individuals on the autism spectrum acquire or learn specific behaviours and concepts. Bandura (1969, p.149) states that “the modelling stimuli convey information to observers about the characteristics of appropriate responses”. The way observational learning is developed can help predict what may happen when individuals with autism read Social Stories. As Bandura (1969, p.149) explains, “observers must abstract common attributes exemplified in diverse modelled responses and formulate a principle for generating similar patterns of

behaviour". So when reading Social Stories which represent symbolic modelling, autistic individuals need to retain a memory of what they have read, according to which they can perform a desired change after they finish reading the Story. The idea of observational learning through symbolic modelling can be understood as being strongly connected to Social Stories.

Observational learning involves four sub-processes: maintaining attention to the modelled behaviour, retaining the modelled information, motoric reproduction and motivation (Bandura, 1977). Bandura's explanation of the modelling process indicates that a "lack of matching behaviour following exposure to modelling influences may result from either failure to observe the relevant activities, inadequate coding of modelled events for memory representation, retention decrement, motoric deficiencies, or inadequate conditions of reinforcement" (ibid, p.8). Based on that concept, this study argues that Bandura's theory can be used as an explanation for why some individuals on the autism spectrum do not imitate the behaviour or learn from the concept presented in Social Stories because of their failure to adapt to one or more of the observational learning processes.

I will now discuss the observational learning processes and link them with literature from Social Stories. The importance of maintaining an individual's attention during the learning process can be justified by Bandura's theory, which states that "a person cannot learn much by observation if he does not attend to, or recognize the essential features of the model's behaviour" (1977, p.6). Subsequent analysis by Morse (2017) argues that paying attention and staying engaged are important factors when learning to acquire mental models and gain insights into a given situation. This means that shifts in attention can be a key factor, negatively affecting the ability of individuals to learn through observation.

Studies on attention in autism according to Hollander et al. (2011, p.191), "point to the relative strength in sustained attention for simple, rote material and deficits in divided attention, determining the salient aspects of the environment to attend to, and shifting attention". Dodd (2005) also points out that many people on the autism spectrum struggle to attend to something for

long enough to comprehend its essential information. Other research by Travers et al. (2011) indicates that individuals with autism struggle to shift and refocus their attention. This is evidenced when an unexpected disruption distracts individuals with autism. If autistic individuals cannot keep their attention focused on Social Stories, it may affect their learning outcomes. This is shown in the study Scattone et al. (2006) who argues that the disruptive behaviour of peers might negatively affect a child's behaviour, thereby limiting the effect of Social Stories. This might mean that physical distraction could be a factor that shifts the child attention from the message of the Story and prevent its influence. Penton (2010) suggests that selecting a suitable place to read Social Stories can help children with autism to focus on the task. This suggestion was based on study findings of Penton (2010) which concluded that autistic children showed unsuccessful results because they had been distracted when reading Social Stories. This provides the theoretical rationale for an association between location and attention, and also shows that it is vital to maintain the attention of individuals on the autism spectrum when they read Social Stories. Studies by Scattone et al. (2006) and Penton (2010) offer a way of understanding contextual factors that might also be relevant in theorising change for individuals on the autism spectrum. Understanding the roles of space and attention span can be useful in realising why Social Stories are useful in some circumstances and conditions, but not all.

Information retention is another significant element in the process of observational learning. Bandura (1977, p.7) believes that "a person cannot be much influenced by observation of a model's behaviour if he has no memory of it". For individuals with autism, the ability to remember what they have observed is vital in order to accrue learning thorough observation. Penton (2010, p.189) considers that "the participant's ability to comprehend and remember the Social Story may be more important than regular reading of the Social Story within the first two weeks." Reynhout and Carter (2007) also proposed that there might be a link between the level of understanding of Social Stories in autistic children and their adherence to desired behaviour. Reynhout and Carter (2008) also found that a child with autism who was able to answer Social Story comprehension questions correctly showed significant

improvements in desired behaviour. However, a child who provided incorrect answers to questions about a Social Story was not able to replicate the behaviour shown in the Story. Their studies argue that the importance of the relationship between comprehension and action lies in the link between understanding and retaining observed information. Based on such conclusions, it might be useful to begin by assessing the level of comprehension of Social Stories in individuals on the autism spectrum. Reynhout and Carter (2007) pointed out that comprehension questions used to be included in Gray's early guidelines for Social Stories, but were removed from subsequent editions. The question here is whether comprehension questions should be reinstated as an integral part of the Social Story procedure.

The third process of observational learning is through motoric reproduction. This involves "the utilization of symbolic representation of modelled patterns to guide overt performances" (Bandura, 1974, p.22). This stage, according to Harinie et al. (2017), is guided by individuals' capacities to transform symbolic codes within the memory to perform intended actions. The time needed to acquire this process differs from one individual to another. Bandura (1977) indicates that "the amount of observational learning that a person can exhibit behaviourally depends on whether or not he has acquired the component skills" (p.8). Literature has identified variations in the time individuals with autism spend reading Social Stories. In different studies, Social Stories were read for three days over four weeks (Crozier and Tincani, 2007), ten times over two days (Quirnbach et al., 2009), and daily for over five weeks (Penton, 2010). Sansosti and Powell-Smith (2008, p.175) suggest that examining the role of frequency, repetition, and time "may be useful because some social skills may require more instructional time to bring a student with HFA/AS to a level of adequate proficiency or greater opportunities to practice the targeted skill". This raises the question of how important it might be to reexamine the role of time as a factor within motoric reproduction when Social Stories are used with individuals on the autism spectrum.

Motivation is another important factor to consider when addressing the nature and effects of Social Stories. Bandura (1977, p.7) considers that "models who

possess interesting and winsome qualities are sought out, where those who lack pleasing characteristics tend to be ignored or rejected". He also suggests that there are three types of motivation: direct-reinforcement, vicarious-reinforcement and self-reinforcement (ibid). One of the challenges that individuals on the autism spectrum face is a lack of motivation in terms of communicating with others (Tonge and Brereton, 2005) and learning (Koegel et al., 2008). The lack of motivation in individuals with autism is usually shown "by avoidance, inattention, noncompliance and repeated temper tantrums" (ibid, p.221). In order to motivate autistic individuals to learn, different strategies have been recommended, such as including the "child's choice of stimulus" (Koegel and Koegel, 2013, p.75). By getting to know the interests and preferences of individuals on the autism spectrum, we can help create a motivational environment for them to achieve their full learning potential. This implies that Social Stories that present positive or popular characters will encourage individuals with autism to engage more fully with reading the Story. According to Ozdemir (2008, p.1694), "the adaptations of pictures of interest for each participant were a crucial factor in motivation". Authors such as Koegel and Koegel (2013) and Ozdemir (2008) have identified ways in which motivation connects to the creation of individualised Social Stories that contain interesting elements for individuals on the autism spectrum, and this has been proposed as a method for promoting individuals with autism to read Social Stories and to perform or develop a desired change. On the other hand, Social Stories that contain fewer interesting elements may prevent the success of the lessons they contain being adopted by autistic individuals. The way Social Stories are created can hinder the user's motivation, for example by the use of abstract information (Samuels and Stansfield, 2011). Bandura's theory regarding the role of motivation may be important when planning and understanding the effect of Social Stories for individuals on the autism spectrum.

After examining the stages of observational learning and the ways in which it could be linked to Social Stories, it is important to consider each stage carefully in order to reduce the possibility of unsuccessful results when Social Stories are being used for individuals on the autism spectrum. As this study

proposed earlier, observational learning processes can help identify and improve the ways in which Social Stories illustrate change for such individuals. However, there are some limitations in terms of relying too heavily on social learning theory. Fryling et al. (2011, p.195) argue that “Bandura’s theoretical constructs are not derived from events, and as such cannot be found and thereby can never actually be studied.” This means that the scenarios used in Bandura’s experiments are idealised, making them difficult to apply in real life situations.

Another limitation is linked to the way aggressive behaviour is understood. Although aggressive behaviour can be learned by observation, genetic factors can also be a related cause of antisocial or confrontational behaviour (Burdick, 2014). In criminality studies, for example, the usefulness of social learning theory to justify some crimes has been questioned as it is incapable of providing a clear explanation for some types of criminality (Bradshaw, 2011). This appears to indicate that individual behaviour patterns may be far more complex, and can perhaps be influenced by other factors.

In this section, the study argued that social learning theory could be used to theorise changes in the responses of individuals with autism when using Social Stories. This argument was justified through the analysis of the literature, which showed that observational learning processes might be important themes that could help to understand change when using Social Stories with individuals on the autism spectrum. This research will also draw on the social learning theory to find out if professionals’ views and explanations of Social Stories and change can reflect the four stages and concepts of observational learning.

2.8.2 Multiple Intelligences Theory

Multiple intelligences theory is based on the idea that different types of intelligence are used to process different types of information (Gardner, 1999). Multiple intelligences, according to Gardner, can be categorised as follows: verbal-linguistic, musical, logical-mathematical, visual-spatial, bodily-kinesthetic, interpersonal, intrapersonal and naturalist (see appendix A for

definitions). Arnold and Fonseca (2004, p.121) argue that “Gardner’s cognitive model proposes that human beings are multidimensional subjects that need to develop not only their more cognitive capacities but also other abilities as, for example, the physical, artistic and spiritual”. The theory advocates multiple learning styles and is designed to address individual types of intelligence and identify intelligence strengths and weaknesses. According to Bovee (2013), when teachers use different approaches to reflect multiple intelligences within their students, the process of providing and receiving knowledge can be improved. This means that understanding the importance of multiple intelligences within each individual helps educators understand, theorise and provide different ways to help facilitate learning. This study argues that the application of multiple intelligences theory can help us understand the role of the creative arts in the learning processes of individuals on the autism spectrum.

The literature argues that autistic individuals can often demonstrate preferences for or abilities in some types of intelligence over others. This is supported by the findings of studies by Kana et al. (2006) and Sahyoun et al. (2010) which revealed that children with autism rely more on their visual-spatial abilities than they do on linguistic intelligence. Because individuals with autism are considered to be more visual learners, presenting information verbally may prove unsuitable (Grandin, 1995). Brownell (2002, pp.124-125) also argues that “although it has been noted that students with autism are generally not aural, the music centres of the brain are separate and distinct from the receptive language centre”. This shows that individuals with autism respond better to visual or musical stimuli compared to verbal language, and such knowledge can be used to help educators employ strategies that are designed to promote and develop the abilities of individuals on the autism spectrum.

Based on multiple intelligences theory, the creative arts can be seen as a useful way of increasing the learning capacities of autistic individuals. The creative arts according to Mills (2014), can “actively engage children’s imagination through art, dance, dramatic play or theatre, puppetry, and music. The creative arts engage children across all domains: cognitive, language,

social, emotional and physical” (p.1). Artistic activities can be incorporated into all multiple intelligence domains (Gardner, 2006) and have been linked to different regions of the brain (Rosier, 2010). Gardner points out that “the arts may be especially suited to encompass the range of individual intellectual profiles” (2006, p.101). If teachers are searching for a useful method of teaching children on the autism spectrum, they should be advised to integrate the creative arts into their teaching practices (Batson, 2010).

The literature provides different examples relating to the use of the creative arts as a method of supporting individuals on the autism spectrum. Drawing, for instance, is a useful activity that can be used to highlight the points of view of individuals with autism spectrum conditions more successfully than written text or conversation (Duncan, 2013). Drawing, as a form of nonverbal expression, can be used as a way to enable children with autism to communicate their experiences (Emery, 2004). Because children on the autism spectrum are often visual thinkers, creating art may help them to relate their output to the world around them (Martin, 2008). Furniss (2008, p.11) indicates that for children on the autism spectrum, artmaking usually reflects their visual thoughts as either “obsessions or preoccupations”. Drawing can be seen as way of gathering information about autistic children, and can therefore become “a structured method in building a more conducive environment” (Cheng et al., 2011, p.50). The use of drawing within the autism spectrum can be beneficial in “helping children with autism progress from schematic (formulaic) drawing to the realm of representational drawing and symbolic thinking. [Art] becomes a tool for them to make sense of their environment” (Martin, 2008, p.16).

The use of drawing for individuals on the autism spectrum can be seen as a helpful instrument for teachers to gain access to their world. Some studies have investigated the use of portrait drawing to help understand how children with autism recognise faces (Cheng et al., 2011; Martin, 2008). These studies concluded that portrait drawing represents a useful way of teaching face recognition for children on the autism spectrum (Cheng et al., 2011; Martin, 2008). Although creating a drawing involves the short-term memory, linking a visual object to an idea involves the long-term memory (Rosier, 2010). As

such, creating symbols and signs during art activities can help children with autism to remember information and apply it appropriately (Alexander, 2012). This emphasises the role of visual art as a way of improving the retention of information for individuals on the autism spectrum.

Examples of the role of the creative arts within practices such as dance and drama therapy for individuals on the autism spectrum can be found in various studies. One study by Koch et al. (2016) examined the impact of using dance movement therapy on the way adults with autism create a clay sculpture of a human figure. It was found that participants' sculptures improved significantly after attending the dance movement therapy sessions in different areas of the Body-Image-Sculpture-Test, including proportions, dimensions, completion, connectedness and surface quality (ibid). Another study used dance movement with children on the autism spectrum to increase their range of self-expression (Finlayson, 2015). Other art forms such as music, drawing, and sculpting were also provided for participants as props to help them discover ways to express themselves more creatively. The findings indicated that a reduction in anxiety levels was a common improvement among participants, while all participants showed varying degrees of improvement in communication, decision-making, listening skills, verbal skills, physical expression, spatial awareness, maintaining attention and following directions (Finlayson, 2015).

Drama therapy also provided promising results in helping individuals on the autism spectrum. A study by D'Amico et al. (2015) examined the efficacy of an intervention that involved drama therapy in developing social skills and reducing behavioural problems for children on the autism spectrum. The Social Skills Improvement System-Rating Scale (SSIS-RS) was used to measure the outcome for each participant, and the rating system was completed by children with autism and by their parents. The findings showed that significant changes appeared in the following areas: reduction in hyperactivity, inattention, externalizing and autism spectrum behaviours. In addition, the participants showed improved levels of engagement (D'Amico et al., 2015). Another study by Godfrey and Haythorne (2013) explored teachers' and parents' feedback on drama therapy programmes offered in schools for

children and young people on the autism spectrum. The feedback showed that drama therapy was beneficial in five thematic areas: Firstly, participants benefited from a safe environment in which they could explore and develop different experiences; secondly, they obtained a better understanding of friendship as they developed better social interaction skills; thirdly the interaction enabled them to participate in role-play, which gave them an opportunity to practice a wider range of social skills; fourthly the structured content of the drama therapy sessions led to a reduction in anxiety and improved confidence, and fifthly the drama therapy offered support for the community and families as well as the participants themselves (Godfrey and Haythorne, 2013). The use of the creative arts within practices such as dance and drama therapy can therefore be seen as a method that promotes the multiple intelligences of autistic individuals by creating different opportunities for them to learn and communicate effectively.

The creative arts have also helped with the development of other areas for individuals with autism spectrum conditions, such as interpersonal and intrapersonal skills. Artistic activities are considered to be enjoyable experiences, and enjoyment can lead to higher levels of involvement, an improvement in mood and a reduction in stress (Rosier, 2010). Involving children with autism in artistic activities can also be useful in decreasing their anxiety and encouraging them to interact socially with others (Lasry, 2010). Using music with individuals on the autism spectrum can also “aid regulation of emotion and moderate the bodily expression of moods, reducing anxiety and stress” (Trevarthen, 2002, pp.87-88). Music can be used to “facilitate relationships, learning, self-expression, and communication” (Havlat, 2006, p.20). In addition, drawing activities can help children with autism develop a relationship and facilitate communication with others (Cheng et al., 2011; Martin, 2008). This underscores the usefulness and the importance of using the creative arts to develop interpersonal and intrapersonal abilities for autistic individuals.

Multiple intelligences theory is not without its critics, however. Criticisms include weak empirical support and classroom-based evidence, as well as the inappropriate use of the curriculum that leads all pupils to believe they are

clever (Armstrong, 2009). However, despite these criticisms, recent findings from neuroscience research offered by Shearer and Karanian (2017, p.221) support the existence of Gardner's proposed intelligences. They argue that

Based on the detailed analysis of over 318 neuroscience studies, it appears there is robust evidence that each of the eight intelligences possesses its own unique neural architecture. There are also theoretically consistent commonalities among related intelligences.

Further different examples have been provided from educational research which support the usefulness of the idea behind multiple intelligences theory (Armstrong, 2009). The literature also highlights a number of studies that advocate the use of multiple intelligences theory in education; see for instance Hanafin (2014), Yalmanci and Gozum (2013), Abdulkader et al. (2009). The multiple intelligences theory helps to show the positive side of each learner's abilities and offers them a way to enjoy successful experiences as they learn (Armstrong, 2009). The importance of multiple intelligences theory can be seen in the way it focuses educators' attention on the different aptitudes that individuals on the autism spectrum possess in order to help ensure their success in education.

Multiple intelligences theory can also be useful as a theoretical framework that helps us understand how the creative arts can benefit individuals on the autism spectrum. The literature shows that the creative arts are linked to all types of intelligence, and supports the idea that the creative arts can encourage individuals with autism across multiple intelligence levels. Based on this argument, the creative arts can help individuals on the autism spectrum to learn, communicate and construct relationships with others, and the way the creative arts embody the concept of change for individuals on the autism spectrum supports their use in education.

This study considers social learning theory and multiple intelligences theory separately as theories that each possess elements related to Social Stories and the creative arts. The following section also considers how the integration of the two theories can help address the aims of the research to explore the

impact and the use of Social Stories with the creative arts for individuals on the autism spectrum.

2.8.3 The integration of Social Learning Theory and Multiple Intelligences Theory

Developing a relationship between different theories can be useful when attempting to clarify any aspect of the research that is under investigation. In some cases, using a single theory cannot address the research question adequately or completely (Mayer and Sparrowe, 2013). For this reason, integrating more than one theory may be beneficial in helping researchers achieve a better understanding of a specific phenomenon in order to provide more complete answers to their questions (ibid). As such, my research will integrate social learning theory and multiple intelligences theory. I will offer a rationale for my choice of integrating these two theories and the value of bringing them together. The combined use of both theories will provide a useful theoretical framework to help explore how combining Social Stories with the creative arts can assist individuals on the autism spectrum in developing their behaviour and actions.

This approach will provide the essence of the theoretical framework used in this study, and will demonstrate the importance of combining and integrating social learning theory and multiple intelligences theory when analysing how the creative arts can be used to support the education of people on the autism spectrum. This importance will be highlighted by showing the role that the creative arts can play (based on multiple intelligences theory) in offering more opportunities for individuals with autism to engage with learning Social Stories. The creative arts can also help by supporting the processes of observational learning – namely maintaining attention, retaining information, motoric reproduction and motivation when learning Social Stories.

There are different ways in which Social Stories can be used with the creative arts. Any type of creative art can be used before, during, and after Social Stories, and uses can be for a variety of purposes. The creative arts can help autistic individuals concentrate when learning Social Stories, helping them to

understand and remember the Story, to communicate their understanding of it, to reproduce its content through performance and to increase their motivation to engage with it. The creative arts can offer a safe and less socially challenging environment than the outside world, and in this environment, individuals with autism can practice the social interaction presented in Social Stories.

This section will now go on to suggest how combining social learning theory and multiple intelligences theory can help create greater insights into the ways in which professionals understand the impact of combining Social Stories with the creative arts for autistic individuals. This will be approached by discussing empirical studies that used Social Stories with the creative arts in the education of individuals on the autism spectrum. Music, for example, has often been used in conjunction with Social Stories. Brownell (2002, p.125) argues that using musical Social Stories may help to encourage “repetitions of the story, increase cooperation during the intervention and provide an avenue for recall of information contained within the Social Stories”. When Brownell (2002) examined Social Stories in a musical context, he concluded that Social Stories were effective in modifying the behaviour of children with autism both without and with music. However, it was found that when music was used in conjunction with Social Stories, behavioural issues were less frequently shown (ibid). Brownell also stated that one participant “would spontaneously sing portions of the information contained within the Social Story” (p.141). This can be seen as an indication of the usefulness of using musical Social Stories in supporting memory for children on the autism spectrum. In another study by Xin and Sutman (2011), the aim of using music with Social Stories presented on smart board was to motivate autistic children. The researchers incorporated music from a cartoon film selected by the participants on the last Social Story slide, but there was no report on the effect of the inclusion of music. These studies by Brownell (2002) and Xin and Sutman (2011) demonstrate how the exploration of connections between social learning theory and multiple intelligences theory – namely musical intelligence – help illuminate the reasons why music can be linked to retaining information and motivation. These aspects of behaviour, the studies argue, can be

conceptualized as two important processes within observational learning when engaging with Social Stories.

Another illustration of using Social Stories with the creative arts is through drawing. Alessandrini et al. (2014) examined the usefulness of a prototype consisting of audio-augmented paper with tangible tools for children with autism. The study used visual Social Story cards and drawing activities to promote descriptive talking in order to examine the effectiveness of a prototype. Preliminary results revealed that the prototype was beneficial in encouraging interaction between the therapist and the participants. However, the study did not explore the usefulness of using visual Social Story cards with drawing activities for children on the autism spectrum. Penton (2010) asked children with autism to draw scenes from their Social Stories when designing the Stories. Findings showed that one TA reported, “the thing that seemed to capture his interest was that it was *his* drawing, and it was about *him* [...] but even seeing that front page [the symbol of a chair] [...] he really made it his own” (p.180). However, the study did not attempt to justify its use of drawing with Social Stories or its effect in developing change in the responses of children with autism.

Based on a study by Penton (2010), engaging the visual-spatial intelligence when drawing scenes for a personalised Social Story helped a child with autism to visualise their sense and to link these pictures to their own childhood experience. This practice also reinforced the stages of attention and motivation within Bandura’s observational learning processes, as the act of personal drawing increased the child’s motivation and attracted his attention to engage with the Social Story. The integration of social learning theory and multiple intelligences theory is therefore seen to represent a way of offering a greater understanding of how using drawing activities with Social Stories may offer opportunities for change for individuals on the autism spectrum.

The use of role-play with Social Stories is another example. Chan and O’Reilly (2008) used an “intervention package” that included role-play and verbal prompts with Social Stories, and found that children’s desired behaviour improved significantly. The study also reported that participants

were able to maintain the learned behaviour for up to 10 months. This was the longest period of maintenance referred to in the literature on Social Stories (ibid). However, the study did not report on the impact of using Social Stories with role-play in developing the behaviour of children on the autism spectrum. It might be useful to consider this study in greater depth, as it may offer a deeper understanding of the individual factors that may have been responsible for change. Drawing on the study by Chan and O'Reilly (2008), the use of drama – which is linked with bodily-kinesthetic intelligence – can be beneficial in supporting the reproduction stage within the observational learning processes. Meanwhile, using Social Stories with role-play is seen as a way of supporting children on the autism spectrum by encouraging them to act out and practice behaviour within the Stories in a safe and structured environment. The integration of social learning theory and multiple intelligences theory offers excellent insights into our understanding of the ways in which the relationship between Social Stories and role-play can create opportunities for individuals on the autism spectrum.

From all the examples discussed in this literature review, we can conclude that the combined use of social learning theory and multiple intelligences theory could provide new insights into how Social Stories, when used alongside the creative arts, can represent a useful strategy for helping individuals on the autism spectrum understand different social situations and develop change in their responses.

There are some limitations that may arise from this theoretical framework, however. The usefulness of mixing the creative arts with Social Stories has not been fully examined specifically for individuals with autism spectrum conditions, and more research is needed to highlight the benefits and limitations of their use. Another possible limitation is that the combining of Social Stories and the creative arts may not be preferred by some individuals on the autism spectrum. However, the theoretical framework outlined in this study aims to offer another perspective on how the creative arts can be used with Social Stories and how they could offer more opportunities to help autistic individuals to develop and make the most of their lives.

Overall, social learning theory can offer an explanation of the mechanisms behind Social Stories and how they can promote change for individuals with autism. Meanwhile, multiple intelligences theory can demonstrate the ways in which the creative arts can be useful to strengthen the aptitude and knowledge of individuals on the autism spectrum. If social learning theory and multiple intelligences theory are integrated, they can be theorised jointly to facilitate a useful framework that explains behaviour change for individuals on the autism spectrum through the empowerment of their intelligence. The integration of the two theories also represents an attempt to create “a multi-model learning environment for students with autism” (Brownell, 2002, p.142). In theory, using Social Stories with the creative arts might provide an alternative path to encourage educational and behavioural development for individuals on the autism spectrum. However, this theoretical concept needs empirical research to prove its usefulness.

2.9 Chapter Summary

Individuals on the autism spectrum often experience difficulties in communication and social interaction, as well as stereotypical behaviour, interests and activities. To help individuals with autism overcome the difficulties they experience, various intervention strategies have been developed. One of these strategies is Social Stories, which are short stories structured in a specific way to help autistic individuals understand concepts as well as social and communication skills. The creative arts are another approach to support individuals with autism, helping them to learn through engaging them in multi modal experience. The arts offer learners a venue to promote communication, interaction and self-expression. The integration of Social Stories with the creative arts is an emerging strategy, and has become an area that attracts research into investigating their combined efficacy with autistic individuals. Some studies have focused on using drama or music in conjunction with Social Stories to help children with autism to develop appropriate social behaviour.

As most of the studies on this integrated strategy were empirical, this

research aims to address a theoretical gap and a gap in the knowledge by offering meaning to the empirical studies. To address the theoretical gap, a novel theoretical framework is developed to form the theoretical basis of this investigation. This framework draws on social learning theory as a way to theorise Social Stories and change, while drawing on multiple intelligences theory to explain the role of the creative arts in supporting individuals with autism and helping them to develop and learn. The study proposes that the integration of social learning theory and multiple intelligences theory offers a new way of theorising the use of Social Stories with the creative arts for individuals on the autism spectrum. This theoretical framework was applied with a mixed methods design to investigate gaps in knowledge concerning professionals' perspectives on the impact of using Social Stories with the creative arts and how they approach this in natural settings. Professionals' perspectives on the nature of Social Stories and the creative arts were also examined using the proposed framework in order to anticipate the impact of using them in an integrated way. Chapter 3 describes the adapted philosophy and methodology for this investigation.

Chapter 3: Methodology

3.1 Introduction

According to Opoku et al. (2016, p.33) methodology is “the philosophy and framework that is fundamentally related to the entire process of the research”. Gray (2009) argues that researchers’ theoretical perspectives and the epistemological stance they adapt will influence their research methodology. Another factor Kothari (2004) identifies is related to the problems and aims of the research. These factors in turn influence the research methods and approaches that are used to address a specific enquiry (Gray, 2009).

This chapter starts by identifying and exploring the research aim and the research questions, then sets out the philosophical approach that underpins this study. It also examines the reasons underpinning the choice of proposed methodology. After this, the chapter moves on to provide a critical review of the research methods, data analysis approaches and sampling techniques that will be used. Debates and discussions surrounding approaches to the validity of mixed methods research, research ethics and a pilot study.

3.2 Research Aim

This study will examine professionals’ perspectives on the nature of Social Stories and the creative arts, as well as the impact of using Social Stories with the creative arts for individuals on the autism spectrum. It will also address the similarities and differences between these perspectives. The study will also investigate professionals’ approaches and ideas about the practical use and the effects of combining Social Stories with the creative arts for individuals with autism spectrum conditions. A novel theoretical framework will be developed to theorise the joint use of Social Stories and the creative arts. This framework aims to explain the role of the creative arts in supporting the implementation of Social Stories for individuals on the autism spectrum.

3.3. Research Questions

The study seeks to answer the following questions:

- 1. What are professionals' perspectives on the nature of using Social Stories for individuals on the autism spectrum?**
- 2. What are professionals' perspectives on the nature of using the creative arts for individuals on the autism spectrum?**
- 3. What are professionals' perspectives on the impact of using Social Stories in conjunction with the creative arts for individuals on the autism spectrum?**
- 4. How do professionals approach the use of Social Stories with the creative arts for individuals on the autism spectrum?**

There are different ways in which I could engage with the issues my research draws on, but my use of a specific theoretical framework affects the way in which I am approaching Social Stories and the creative arts in my questions. I am interested in exploring the way professionals construct their knowledge concerning Social Stories with the creative arts, drawing on social learning theory and multiple intelligences theory.

As the study examines professionals' perspectives within a specific framework the following section will link each question with the theory used in this investigation. The first question explores the nature of Social Stories through the lens of social learning theory, while the second examines the nature of the creative arts through the lens of multiple intelligences theory. These two areas and separate theories were integrated to investigate question three on the impact of using Social Stories with the creative arts and question four on the use of Social Stories with the creative arts for individuals on the autism spectrum.

3.4 Philosophical Paradigms

3.4.1 Pragmatism

The relationship that philosophy has with research is debated, and there are a variety of different perspectives on this. Baldwin (2014, p.2) argues that “a researcher’s philosophy or the way they view the world will undoubtedly influence the way in which a study proceeds”. The underlying philosophy against which a piece of research is situated will influence different considerations in terms of the research procedures. Crossan (2003) points out that the usefulness of philosophical enquiry can be in the way it promotes in depth thinking and a logical approach when considering a research topic. Adopting a research philosophy can therefore help to ensure that researchers have a deeper understanding of the relationship between research questions and methodology. This understanding can be reflected in a more in-depth analysis of the data in terms of validity and the creation of meaning.

In line with this, I have positioned my research within the philosophy of pragmatism, because the knowledge I want to obtain and engage with would not be adequately achieved by adopting either positivist or interpretivist views. While positivism emphasises the idea that knowledge is based on objective reality this requires using purely scientific approaches. Meanwhile, interpretivism stresses on relativistic reality as determined by individual understanding and adopting a specific point of view (Azorín and Cameron, 2010; Della Porta and Keating, 2008). As this study uses a mixed methods design, pragmatism provides a philosophical position that offers me a broader and deeper understanding of professionals’ perspectives on the use of Social Stories with the creative arts for individuals on the autism spectrum.

Pragmatism, as defined by Morgan (2014, p.26), is “a philosophy in which the meaning of actions and beliefs is found in their consequences”. Meanwhile, Creswell (2014, p.10) considers that pragmatism “arises out of actions, situations, and consequences rather than antecedent conditions”. These definitions draw on actions as a key element in pragmatism, which are best understood through their consequences in relation to a specific context. Pragmatists hold a different view of the nature of truth than positivists and

interpretivists. Creswell (2014, p.11) argues that the “truth is what works at the time. It is not based in a duality between reality independent of the mind or within the mind”. The meaning of truth is therefore more strongly associated with practicality that exists at a specific period of time. Yvonne Feilzer (2010) also emphasises that pragmatists do not aim to discover any kind of reality or truth. Morgan (2014, p.40) argues that the pragmatist “sidesteps issues such as the nature of reality and truth in favor of emphasizing actions as the basis for knowledge”. The concept of truth is therefore not prioritized by pragmatists, who pay more attention to the practicality and usefulness of any actions.

According to Saunders et al. (2009), pragmatists believe that the research question is an essential determinant of the ontology and epistemology that researchers should adopt. Giacobbi et al. (2005, p.21) also argue that pragmatism “considers the problems under study and the specific research questions as [being] more important than the underlying philosophical assumptions of the method”. As a result, the methods of data collection and analysis are selected that best offer the information necessary to answer the study questions (Scott, 2016). My approach therefore accords with pragmatists, who give more importance to the research question when choosing research methods than the philosophy that underpins it. I also decided on using a mix of quantitative and qualitative methods because the two approaches work best together to answer my research questions (Rocco et al., 2003). Another reason, as Ihuah and Eaton (2013, p.937) argue, is that if the research questions do not accord to a specific philosophy such as positivism or interpretivism, “the uses of both qualitative and quantitative methods to resolve a real-life world challenge are commended”. In this case, the study used a questionnaire that belongs to a positivist paradigm, and interviews and diary that belong to interpretivist paradigm, so the research adopts “a pragmatic approach [that] provides a balanced point between the deductive and inductive perspectives of thinking which offers practical answers for merging different paradigms” (ibid, p.942).

Positivist and interpretivist paradigms have their own type of reasoning. According to Morgan (2007) the former use deduction and the later induction.

Pragmatists introduce their own type of reasoning, which is abduction (Dew, 2007). Plowright (2011, p.112) indicates that “abduction is concerned with arriving at an explanation, or the best available hypothesis, for an event that has already taken place”. Dew (2007, p.38) also states that abduction “is about making inferences from information that is surprising or anomalous”. These definitions highlight the fact that abductive reasoning is mainly concerned with providing explanations for researched information and unexpected findings. Plowright (2011) considers that the process of abduction helps researchers by offering a clarification in terms of how information from a phenomenon is codified. DePoy and Gitlin (2015, p.6) also argue that “this process involves the development of new theoretical propositions that can best account for a set of observations, which cannot be accounted for or explained by a previous proposition or theoretical framework”. DePoy and Gitlin (2015) consider that in abduction the reason behind analysing the data is to find out particular patterns that may or may not be related to proposed theories. Ansell (2015) also argues that in abduction, the process of pattern recognition can involve two forms: firstly, recognizing unexpected patterns within the data or patterns that cannot be justified by a proposed theoretical framework. Secondly, inferences based on abduction can help with discovering new patterns within a data set.

According to Morgan (2007, p.71), abductive reasoning “moves back and forth between induction and deduction”, An illustration of this can be seen in the use of mixed methods sequential design, “where the inductive results from a qualitative approach can serve as inputs to the deductive goals of a quantitative approach, and vice versa” (Morgan, 2007, p.71). Such use of abduction reasoning is referred to in Yvonne Feilzer’s study:

Analyzing the data sets abductively as well as deductively and inductively, separately at first, then moving back and forth between the data sets with the knowledge produced by each one, finally bringing them together, enabled the interpretation of the data from a multidimensional perspective, each data set informed, questioned, and enhanced by the others (2010, p.7).

This approach to analysing datasets abductively can demonstrate the ways in

which “shared meanings and joint action” (Morgan, 2007, p.67) can be achieved pragmatically. Ansell (2015) explains the way in which pragmatists approach the interpretation of meanings through dialogue. In order to draw inferences concerning meanings, questions are asked and then feedback to the questions is examined. This leads researchers to revise their interpretations. The same process is repeated again in order for researchers to revise their understanding regarding a specific phenomenon. Therefore, the overall process of dialogue can help with communicating and creating meaning. For this study, ongoing dialogue between the quantitative and qualitative data sets can be achieved through the different types of reasoning: deductive, inductive and abductive. First, the different datasets were analysed separately and meaning was explored using deductive reasoning for quantitative data and inductive reasoning for qualitative data. Subsequently, the integration of the results was based on the coherence they offer and meaning making was approached abductively in order to help provide a more in-depth understanding of the phenomena under examination.

Overall, because this study used mixed methods and sequential design, deductive, indicative and abductive reasoning could be used. The questionnaire examining professionals’ perspectives on the nature, impact and use of Social Stories with the creative arts is deductively developed from social learning and multiple intelligences theories and then followed up using interviews and diary entries inductively (DePoy and Gitlin, 2015, p.6) to add more in-depth understanding of the questionnaire outcomes. Hence, the use of abductive reasoning will be helpful when moving between deduction and induction in terms of the reasoning used to interpret and explain the research findings.

There are some limitations associated with pragmatism. Scott (2016, p.556) states that the way pragmatists’ link truth with practicality leads critics “to insist that pragmatism is inherently sceptical and relativistic”. This means that for pragmatists, the idea of a unitary truth is not relevant because relativity is inherent within their framework. In response to this claim Talisse and Aikin (2008) stress that pragmatism acknowledges truth from a deflationary view. The authors highlight some of the benefits of deflationism that pragmatists

find appealing:

There is no substantial view of the term *truth* beyond its logical and linguistic functions...another benefit of the deflationary take on truth is that it represent the tight connection between the use of the term true with claims and that of making the claims (ibid, pp.79-80).

The way deflationism refers to the concept of truth as a linguistic function and associates it only with claims attracts pragmatists to adapt themselves to this view. Engle (2011, p.642) also argues that “pragmatism offers a view of how we arrive at truths that resists the reification of language, or of ideology, as a constructor of consciousness”. This means that truth for pragmatists does not extend beyond its linguistic use. Misak (2004, p.642) offers another perspective on the issue of truth and pragmatism. He argues that Peirce’s (the founder of pragmatism) “construct of truth is not an analytic definition of truth, but a distinctively pragmatic elucidation of truth. It is an account of the relationship between truth and inquiry”. This is explained by Engle (2011, p.2) as “the truth is that which has the best consequences in action”. Based on this view, truth can be associated with a specific inquiry, and its explanation is based on this relationship. Therefore, this way of interpreting truth as a concept means that priority is given to the consequences and outcomes in terms of how they enrich our understanding of the questions they are examining.

Another limitation regarding pragmatism according to Patton (2015) is its inability to produce knowledge that is generalizable. However, Morgan (2007, p.72) refers to the idea of transferability and argues that it “arises from a solidly pragmatic focus on what people can do with the knowledge they produce and not on abstract arguments about the possibility or impossibility of generalizability”. This shows that pragmatism is more concerned with the application and use of knowledge, rather than simply focusing on its generalizability. In this study, transferability can be recognised by highlighting the methods, benefits and limitations of professionals’ perspectives on the nature, impact and use of Social Stories with the creative arts. This can help

to offer a richer level of information and more holistic views on the topic being studied. The study findings can also be used as a guide for professionals to apply in different contexts and situations with individuals on the autism spectrum.

Although some authors claim that the knowledge they obtain using pragmatism is not generalizable and they criticize the way pragmatists acknowledge the concept of truth, the rationale that pragmatism can offer for mixed methods research is greatly valued. Based on the philosophy of pragmatism, priority is given to the research aims and questions that determine the chosen methods. Pragmatism also offers an important logical reasoning in the form of abduction, which can help with the interpretation of research data.

Pragmatism as a paradigm is often associated with mixed methods research. It focuses on the consequences of research and the research questions instead of the methods used. The following sections discuss the mixed methods design and the methods of data collection used in this investigation.

3.5 Mixed Methods Research

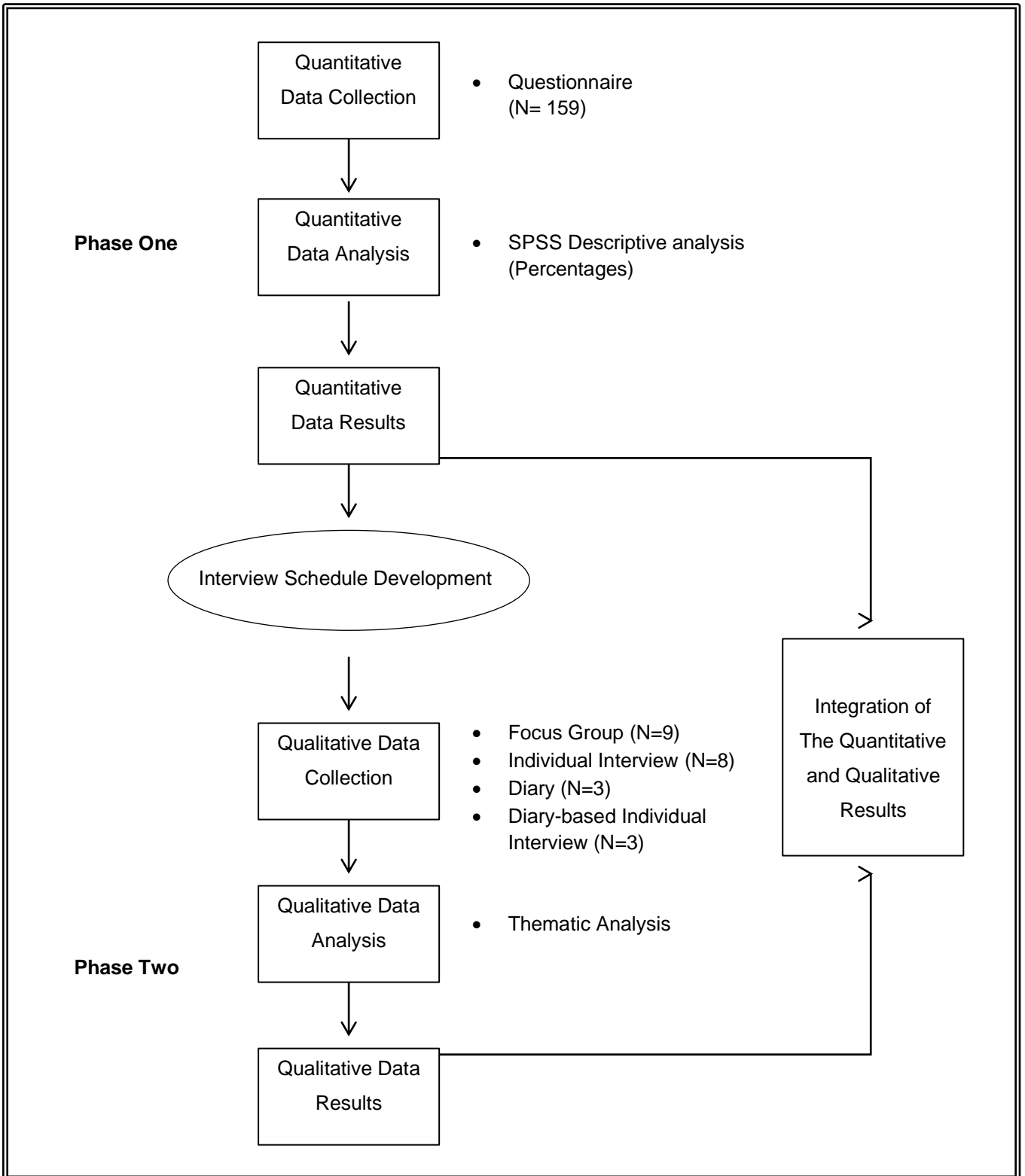
The absolute meaning of mixed methods research and practice is debated and contested. Generally speaking it refers to the use of quantitative and qualitative data collection and analysis techniques within a single study to address research questions (Morse, 1991; Plano Clark and Ivankova, 2016). Morse and Niehaus (2009) define mixed studies as consisting of a main component and a supplement component of either qualitative or quantitative approaches. This way of defining mixed methods research as Plano Clark and Ivankova (2016) argue comes from a method perspective. This means that there is an emphasis on the way data is collected and analysed with the use of both quantitative and qualitative methods (ibid). Another perspective used when defining mixed methods research is the methodological angle. This point of view takes into account “the full process of research from formulating questions to drawing conclusions in a study” (Plano Clark and Ivankova, 2016, p.61). This study adopts a method perspective and uses a mixture of

quantitative and qualitative approaches to collect data and analyse the findings of the study.

According to Ivankova et al. (2006, p.3), the rationale for using mixed methods research “is grounded in the fact that neither quantitative [nor] qualitative methods are sufficient, by themselves, to capture the trends and details of a situation”. The use of mixed methods research can therefore help to overcome the weakness in one method by relying on the strength in another (Barbour, 1998; Kopinak, 1999). This approach, according to Plano Clark and Ivankova (2016), acknowledges the mixed methods approach as a complementary way of gaining a more holistic picture about a specific area of research interest. For example, questionnaires – as Willis (2006, p. 146) argues – “are limited in the degree to which they can provide explanations for patterns or consider attitudes and opinions”. In order to overcome this weakness, Morgan (1996) considers that using focus group as a follow up method can help with the interpretation of the questionnaire findings. It can also be used for the purpose of triangulation, to examine a phenomenon by highlighting similarities and differences to draw a valid conclusion (Guest et al., 2012). All of these techniques are proposed as way of enhancing research outcomes and are therefore adopted for this research.

This study used QUAN-qual sequential explanatory design. This refers to the use of quantitative and qualitative methods in a sequence in which the researcher starts by using quantitative analysis and then offers a qualitative overview (Morse and Niehaus, 2009; Plano Clark and Ivankova, 2016). The purpose of this design is to offer a deeper and more meaningful explanation for the quantitative findings by undertaking a follow up exploration of the qualitative data (Creswell, 2009; Plano Clark and Ivankova, 2016). A sequential explanatory design includes (see figure 3.1) first collecting and analysing quantitative information, followed by looking at qualitative data during a different phase (Creswell, 2009; Guest et al., 2012). One important restriction in this approach means that qualitative methods cannot be used until the quantitative phase has been completed. It also means that the quantitative phase influences the design of the qualitative phase (Ivankova et al., 2006). This will be discussed in the next section.

Figure 3.1 The process of the QUAN-qual sequential explanatory design



In this study, I began by collecting and analysing the questionnaires. After that I look at developing and conducting the qualitative methods: focus groups, individual interviews and diary to examine different aspects that emerged from the questionnaire. In the subsequent discussion section I drew on Morse and Niehaus (2009), who emphasis that results from both phases can be joined together in order to form an integrated perspective. Using a mix of quantitative and qualitative methods helped the current research by providing a general and then a deeper understanding of the subject under investigation. In order to do this effectively, some other factors should be taken into consideration, such as examining the timing of the design, the participants' knowledge about the topic being studied, and choosing suitable methods and data analysis approaches to answer the research questions.

According to Creswell et al. (2003, p.220) integration is “the combination of quantitative and qualitative research within a given stage of inquiry”. The integration of quantitative and qualitative data can, however, be challenging. Khanal (2013, p.119) argues that it may be difficult “to integrate data as they represent divergent paradigms with different kinds of data, logic, investigation approach and explanation approaches”. This highlights the complexity of trying to integrate data gathered from different philosophical backgrounds. Based on this, Mason (1994) mentions a specific challenge related to the development of ways to handle data produced using different epistemologies. Another issue is the ability of researchers to create meaningful responses from both the quantitative and qualitative data sets (ibid). However, to address these issues two solutions are suggested by Onwuegbuzie and Johnson (2006, p.59). The first is to consider both quantitative and qualitative views and assumptions under separate headings, which then allows meaning to be considered from both standpoints. The second way “is to think in terms of continua rather than dualisms and then take more moderate positions on each continuum”. Mason (1994) argues that although the amount of data that one method provides might not be significant in size, it should still be considered valuable as it can offer additional insights.

The integration process in mixed methods research can take place at different stages of the study. For instance, within the research questions (Creswell et

al., 2003), during data collection (Creswell, 2003; Creswell et al., 2003), in the analytical phase (Creswell, 2003; Creswell et al., 2003; Morse and Niehaus, 2009) and during the interpretation phase (Creswell, 2003; Creswell et al., 2003). Some authors advise more specific approaches of integration when adapting a QUAN-qual sequential explanatory design. Creswell et al. (2003) gave an example in which open-ended questions were used within a quantitative instrument such as a survey. Another example connects the two stages by selecting participants from the quantitative study to take part in the qualitative phase. Another point of integration according to Ivankova et al. (2006), is the use of quantitative results to design the qualitative collection methods. Morse and Niehaus (2009, p.59) point out that QUAN-qual design is “unsuitable for transformation in the analytical point of interface; the point of interface usually occurs in the result section of the article or report”. This means that integration should be covered as part of the discussion section rather than in the section that presents the results.

This study used QUAN-qual sequential explanatory design, and the integration occurred at different stages. For example, participants who took part in the qualitative phase were chosen from those who completed the questionnaire. Another point of connection occurred when the quantitative findings were used to develop the qualitative collection methods. The quantitative and qualitative results were also integrated in the interpretation phase. This was achieved by adapting Mason’s (1994) suggestion for linking data from questionnaires with interview data by following up similar themes. This method of integration is useful for helping researchers to examine themes from different angles (ibid).

The overall research design consisted of two phases, the first of which was quantitative. The goal of this phase was to explore professionals’ perspectives on a general scale by considering the nature of Social Stories and the creative arts, the impact of using Social Stories with the creative arts and the ways in which professionals used Social Stories with the creative arts. The second phase was qualitative, and used a case study design to gain a more in-depth insight into the quantitative data.

3.5.1 Case Study

This phase is a qualitative one that used a case study methodology to gain a more in-depth insight into the quantitative data and to identify other themes that may emerge from the qualitative data in order to answer the research questions in more depth. According to Gerring (2004), the case study approach is understood and defined by authors in variety of ways. Some define case studies based on the way they are commonly used, while others look at case studies as single entities (ibid). Yin (2009, p.18) defines a case study as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”. Baxter and Jack (2008, p.544) consider case studies as “an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources”. This means that when a need exists to understand a phenomenon within a context, case studies can help to clarify hidden meanings and provide a more holistic picture. This research considers the case study as a qualitative methodology that is used to explore professionals’ perspectives and practices in depth by employing a variety of methods.

Freebody (2003) argues that the aim behind using a case study in education is to offer a way for professionals and researchers to reflect on specific practices. It also helps when analysing issues linked to experiences and processes (Marks and Yardley, 2004). These factors are strongly linked to this study, as it touches on issues that are related to professionals’ experiences and practices in terms of how they view the integration of Social Stories with the creative arts for individuals on the autism spectrum and the ways in which they use them.

Case studies can be considered in terms of single and multiple cases (Yin, 2009), each of which serves a different purpose. The single case study can be used to examine a rare, critical or revelatory case, while multiple case studies are used to explore alternative and similar perspectives (Yin, 2009). Yin (2009) also considers that the use of single-case study can be problematic as researchers put all their effort into studying a single case instead of exploring

and comparing multiple case studies that may provide richer findings and more powerful conclusions. Therefore, the multiple case study design will be used to strengthen the outcome of this research.

Multiple case design involves the use of several cases to examine parallels and differences within a phenomenon (Baxter and Jack, 2008). Yin (2009, p.54) discusses how multiple case studies can be used to either “(a) predict similar results (a literal replication) or (b) predict contrasting results but for predictable reasons (a theoretical replication)”. The study approach to analyse the content of the cases is to find out whether or not professionals’ perspectives on the nature, impact and use of Social Stories with the creative arts are similar or different. Using multiple cases helps to offer more insights into this topic as it reflects the views of several participants, and the multiple case study approach is therefore useful for this study.

Although the use of multiple cases can be costly and requires more time and effort to carry out (Yin, 2009), the findings from this kind of approach are generally viewed as being robust and reliable (Baxter and Jack, 2008). Lauckner et al. (2012, p.4) also argue that using multiple cases “enables the exploration of complex situations, allowing for the gathering of multiple perspectives, from a range of sources, including contextual information”. Noor (2008) also mentions that one way of achieving successful generalizations is through using multiple case studies, as their results can be considered sufficiently rigorous for replication. Therefore, the benefits of using multiple cases are significant, and can be used to strengthen the study findings in this research.

Multiple case design can help by offering in-depth understanding of the unit of analysis, which may be an individual or group of people (Mills and Birks, 2014; Zucker, 2001). The study cases for this research therefore consisted of individuals and groups of professionals who work with individuals on the autism spectrum in a variety of settings. The study cases were selected from participants who completed the questionnaire.

According to Baxter and Jack (2008), case study design enables researchers to use multiple data sources to help guide them in exploring their area of

interest. In order to gain a deeper insight into professionals' perspectives, different methods were implemented for this study: questionnaires, individual and focus group interviews and diaries. The following section will discuss and critically review these research methods in more depth in order to offer a better understanding of their usefulness and limitations as well as the procedures used.

3.6 Research Methods

To reflect the mixed methods approach and the pragmatist paradigm multiple methods were used to collect the research data. These methods involved questionnaires, focus group and individual interviews as well as the use of diary entries to answer the research questions (see table 3.1).

Table 3.1 Research questions linked with research methods and time

Research questions	Methods used	Methods and time
1. What are professionals' perspectives on the nature of using Social Stories for individuals on the autism spectrum?	Questionnaire, focus group and individual interviews.	Questionnaires were collected over 15 months. Group and individual interviews lasted between 20 and 30 minutes.
2. What are professionals' perspectives on the nature of using the creative arts for individuals on the autism spectrum?	Questionnaire, focus group and individual interviews.	
3. What are professionals' perspectives on the impact of using Social Stories in conjunction with the creative arts for individuals on the autism spectrum?	Questionnaire, focus group and individual interviews.	
4. How do professionals approach the use of Social Stories with the creative arts for individuals on the autism spectrum?	Questionnaire, solicited dairies and dairies-based individual interview.	Diaries were completed from 3 to 5 days.

In order to explore professionals' perspectives at a larger scale, the study began by using a questionnaire. This formed the first step in discovering

professional perspectives on the nature, impact and use of Social Stories with the creative arts for individuals on the autism spectrum. After that, a series of qualitative methods were employed; first, a number of professionals who participated in the questionnaire were invited to participate in a series of focus group and/or individual interviews. The methods used covered the nature of Social Stories and the creative arts as well as the impact of using them in conjunction. Some professionals who participated in the questionnaire and have practiced using Social Stories with the creative arts were asked to keep diaries. This was then followed by diary-based individual interviews to obtain a deeper understanding of elements that became apparent from the findings from the questionnaire and the diaries. I will now go on to outline the details of these methods and analyse their relevance in answering the research questions.

3.6.1 Questionnaires

Gray (2009) indicates that questionnaires are used to collect responses from people regarding a specific set of questions. There are many advantages linked to the use of questionnaire. Gillham (2007) argues that using questionnaires is economical because questionnaires are far less time consuming than interviews. They also enable researchers to obtain information quickly from multiple sources. The questionnaire can be completed at a time that suits participants, and when using closed questions, the analysis of the responses is straightforward (ibid). Marks and Yardley (2004) also point out that questionnaires can also be delivered through different means, including online, by email and in hard copy, enabling a wider access to potential respondents.

However, there are some limitations associated with using questionnaires. Gillham (2007) concludes that researchers often receive low response rates. This was highlighted by Reynhout and Carter (2009), who noted that the number of returned questionnaires from schools was low. In order to avoid this issue, "it would be useful to broaden the survey to include a wider range of teachers from a greater diversity of educational organizations" (ibid, p.250).

The professionals used in this current study were approached not only through schools but also from other sources, including universities, therapy clinics, training courses, conferences and online advertising. Another issue, according to Gillham (2007), is related to respondents' motivation to complete questionnaires. Additionally, if respondents misunderstand any question, their answers cannot be altered. It is also difficult to check whether respondents have been honest in their answers on the questionnaire. The way the questions are written may have an effect on the respondent's answers (ibid). However, although questionnaires have some limitations the advantages outweigh them.

The content of a questionnaire, according to (Marks and Yardley, 2004) tend to differ based on the study objectives, item numbers and type of questions. The design of the questionnaire involves the use of different types of closed questions with answers rated on a Likert scale of five categories, multiple choice or yes/no alternatives (Gray, 2009; Marks and Yardley, 2004). These types of questions make comparison between groups easier, and the results are also easy to analyse (Gray, 2009). However, closed questions do not allow detailed access to the sort of information that open questions can provide (ibid). Using other approaches therefore aims to increase the chances of gaining a more in-depth understanding about the phenomenon under review. Focus groups are often used as a follow up method to examine aspects that have been disclosed by the analysis of questionnaire responses and which need to be studied in greater depth (Marks and Yardley, 2004; Morgan, 1997). Because of this, the research in this study made use of focus group interviews to help clarify issues that were cast up by the questionnaires. This enabled the research to explore the subject at greater length in order to understand the views behind participants' responses more fully.

The study questionnaire consisted of three parts and was sent out along with an information sheet (see appendix B). The first section looked at participants' background information. The second section consisted of three parts with Likert scale questions about professionals' perspectives on the nature of Social Stories (Q1) and the creative arts (Q2) as well as the impact of using Social Stories with the creative arts (Q3) for individuals on the autism

spectrum. The third part examined the way professionals use Social Stories with the creative arts (Q4) for individuals on the autism spectrum, and consisted of multiple choice and yes/no questions (see appendix C). The questionnaires were collected over 15 months.

3.6.2 Interviews

Another technique the study used was interviews. According to Cohen et al. (2007, p.351), interviews involved “the gathering of data through direct verbal interaction between individuals”. Interviews are commonly used for exploring respondents’ perspectives concerning various issues (Marks and Yardley, 2004) because it can “emphasize the in-detail and holistic description of activity or situation” (Dilshad and Latif, 2013, p.191). Two types of interviews were used in this study – focus group and individual interviews – to explore professionals’ views on the nature, impact and the use of Social Stories with the creative arts for individuals on the autism spectrum.

3.6.2.1 Focus Group Interviews. Focus group interviews were implemented first. Morgan (1996, p.130) defines them as “a research technique that collects data through group interaction on a topic determined by the researcher”. Lehoux et al. (2006, p.2095) describe focus groups “as social spaces in which a set of co-constructed narratives are debated or ignored as several social contexts interact through and structure the discussions”. This method is based on interaction within the interviewee group as a response to a specific topic introduced by the researcher (Mack et al., 2005; Marks and Yardley, 2004; Morgan, 1997). All these definitions emphasise social interaction as a feature that distinguishes focus groups from other approaches, highlighting the aims behind using this method. Lloyd-Evans (2006, p.154) states that group interviews help researchers “to ascertain information on collective views of social issues”. Focus group interviews can therefore be used when group interaction would provide more insights into the study results.

Social interaction, according to Lehoux et al. (2006), occurs between the

group members and with the moderator. This way of interaction is a unique element that distinguishes focus groups from other qualitative methods. It is therefore important to be aware of what type of interaction the group interviewees are engaging with (Lehoux et al., 2006). Different types of interactions take place in focus groups according to Lambert and Loisele (2008, p.232), such as challenging, clarifying, criticizing, contrasting, supporting, venting and exchanging information. When undertaking group interviews, researchers should be aware of all of these types of interaction in order to analyse their data as effectively as possible.

The moderator in focus group interviews has an active role in leading the discussion and ensuring that the group of interviewees contribute to the topic being studied (Freeman, 2006; Lehoux et al., 2006). It is important for the moderator to remind participants in the focus group “to speak individually and not speak over each other” (McLafferty, 2004, p.191). This point is important so that the researcher can clearly understand their contributions and views. Smithson (2000) suggests different ways to reduce the bias of the moderator in group discussions. Firstly, the moderator should come from the same background as the interviewees. Secondly, the same moderator should be present in all focus group interviews in order to make sure that all the issues are discussed across all groups. This means that leading a group discussion is an important role, and one that needs careful consideration. These suggestions were considered, and it was felt that I had knowledge about autism, Social Stories and the creative arts, so I moderated all the interviews.

There are different benefits that can be gained using focus group interviews. Morgan (1997) argues that the method can generate large amounts of data in a comparatively short time. Lehoux et al. (2006, p.2092) also state that focus group interviews can provide “an economical way to gather the views of several individuals at the same time”. Mack et al. (2005) also stress their usefulness in gaining access to a wide range of perspectives on a particular area of interest. This variety of views has been developed through dynamic discussion with people from different professions with different areas of experience. Freeman (2006) indicates that the interaction between interviewees also enables the clarification of commonalities and differences in

perspective. Morgan (1996, p.139) argues that “a further strength comes from the researcher’s ability to ask the participants themselves for comparisons among their experiences and views”. All of these benefits can add more value to the use of focus group interviews.

However, Morgan (1996, p.139) also identifies issues related to “the role of the moderator in generating the data and the impact of the group itself on the data”. When this type of interview is compared with one to one interviews, it may actually provide less data in the final analysis (Morgan, 1997). Smithson (2000) argues that in focus groups, some interviewees can dominate the discussion and lead the discussion away from of the area of the researcher’s interest. Although there are some issues in using focus group interviews, they can be successfully tackled by good planning and careful analysis of the data.

Hydén and Bülow (2003) point out that the reason behind analysing focus groups can be to generate conclusions concerning interviewee perspectives or practices. Lloyd-Evans (2006, p.160) notes that “researchers must be aware that focus group data are unique because the group, and not the individual, is the unit of analysis”. This uniqueness led Smithson (2000, pp.108-109) to question “how focus group analysis can treat the group as the primary unit of analysis, when it is not always clear whether the emerging 'dominant voice' may over-represent the opinions of one or two vociferous members”. In this regard, some researchers have suggested ways of analysing focus group interview data. For example, (Lehoux et al., 2006) suggest using an analytical template that can help researchers identify and address the interactive aspects of the process. This template consists of using specific questions under group processes and using epistemological content to guide researchers in the analysis of focus group data. Smithson (2000, p.115) argues that interviewees’ views in focus group can be considered “as being constructed collectively” or “to highlight the emergence of diverse voices” (ibid). The various processes outlined above can be used to reduce the complication of analysing focus group data. In this study, interviewees’ responses within a focus group were represented as shared or individual views.

3.6.2.2 Individual Interviews. Semi-structured interviews represent a type of interview, according to Willis (2006, p.144), that “follows a form of interview schedule with suggested themes, but there is scope for the interviewees to develop their responses”. Marks and Yardley (2004) indicate that semi-structured interviews use a schedule that usually contains between five and eight general questions. The semi-structured interview offers researchers an opportunity to probe the respondents for greater clarity and critical reflection about their responses when needed (Galletta, 2013). Carter et al. (2014, p.545) argue that individual interviews “allow for spontaneity, flexibility, and responsiveness to individuals”. Meanwhile, Marks and Yardley (2004, p.3) state that “the use of interviews allows for the inclusion of complex questions and it offer more time for interviewee to talk and express their views”. When considering these advantages, semi-structured interviews can help the researcher access more information.

However, Carter et al. (2014) also claim that carrying out an interview, transcribing and analysing the data takes a great deal of time and effort to accomplish. Another limitation, according to Willis (2006) it that participants may be offering what they consider to be the correct response, rather than telling the truth. Additionally, when participants are asked to answer a question about a past experience, the answer may be not exactly true because of recall issues. However, although the process of conducting an interview is intense, the benefits are enormous and with good planning, researchers can minimize any associated complications.

For focus group and individual interviews, Willis (2006) suggests that researchers design their interview questions in an open-ended format and begin with simple and straightforward questions. The reason for this is to avoid short responses and enable participants to express their views. Willis (2006) argues that the use of an interview schedule can be helpful because the moderator can make sure that all the important areas of the research are covered. In this study, interviewees were asked a set of questions from an interview schedule prepared by the researcher (see appendix D for focus group interview schedule and appendix E for individual interview schedule). For both types of interview, the same questions were asked to all participants

to facilitate comparison (Marks and Yardley, 2004). Probes were also used when clarification was necessary or to elicit more information (ibid).

Focus groups and individual interviews were used to explore the following research questions: the nature of Social Stories (Q1), the nature of the creative arts (Q2), and the impact (Q3) of Social Stories with the creative arts for individuals on the autism spectrum. Additionally, diary-based individual interviews were used to examine the use (Q4) of Social Stories with the creative arts for individuals on the autism spectrum. The focus group and Individual interview sessions started with a clear orientation drawing on the information sheet (see appendix B) and gathering the signed consent forms (see appendix F). Group and individual interviews lasted between 20 and 30 minutes, and were recorded. The focus groups and individual interviews took place face-to-face apart from one individual interview, which was undertaken via phone. Participants within the two focus groups were interviewed in one day, while participants who took part in individual interviews were interviewed over a three-day period. For diary-based individual interviews, participants were interviewed over two days. All data were transcribed and analysed using thematic analysis. More details on that procedure will be provided in the data analysis section.

3.6.3 Solicited Diaries

Solicited diaries are usually created as a response to a specific topic requested by a researcher (Jacelon and Imperio, 2005; Meth, 2003). The use of solicited diaries can be beneficial as researchers can use them as an alternative method when direct observation is difficult (Jacelon and Imperio, 2005; Zimmerman and Wieder, 1977). Meth (2004, p.164) also points out that “diary-writing offers access to material that is often private or hard to get”. Meth (2003) argues that when a research participant use solicited diaries, it helps them share their experiences and to reflect on their practice. Morrison (2012, p.69) indicates that they also “have the potential to offer a more considered and nuanced insight into the embodied and emotional complexities of everyday life”. McGregor (2006, pp. 201-202) highlights other

benefits of using solicited diaries. Firstly, diary writers have more time to think about the information they are willing to share with a researcher; secondly, the use of the diary “may overcome problems of recall in retrospective interview” (ibid); thirdly, “the written diaries may be revealing of concerns people may not be prepared to voice in a formal interview or group context” (ibid), and fourthly, “the diaries can highlight the importance of issues the researcher had not thought relevant” (ibid). The use of a diary can therefore be helpful in gathering and discovering information related to professionals’ practices.

However, McGregor (2006) argues that diary writing can be time-consuming, and this might have an adverse effect in terms of finding a participant willing to take part in a study. Hugh-Jones and Gibson (2012, p.108) consider that “participants may not complete entries in the level of detail anticipated by researchers”. Meth (2004) states that participants may be selective on what type of information they write in their diary, while McGregor (2006, p.202) argues that “some informants may feel writing something down is potentially incriminating or for other reasons may not report particular experiences or reflections”. The best way to deal with these issues is by explaining to participants the importance of providing full description as possible and how this will benefit the research, whilst ensuring them that diaries will be treated with the greatest confidence.

Solicited diaries, according to McGregor (2006), can be designed in two ways: firstly as unstructured documents which complete based on what they believe is relevant and useful, or secondly as structured diary in which participants are required to respond to specific inquiries. This study used a structured design; the solicited diary content consists of seven open-ended questions (see appendix G). Professionals were asked to respond to the questions in the diary that were aimed at finding out more about their teaching practices on the use of Social Stories with the creative arts for individuals on the autism spectrum. Morrison (2012) argues that diary writer’s awareness of the study aims can play an important role in the kind of information they choose to include or exclude. To cover this, the participants were informed about the study objectives and aims at the start of the process through an information sheet attached to the diary (see appendix G).

The time frame for writing a solicited diary according to Jacelon and Imperio (2005) is from one to two weeks. This timescale is optimal because “less than a week, and the diaries [will not] have sufficient depth of data; more than 2 weeks, and participants [will be tired] of making regular entries” (ibid, p.992). In this research, professionals were offered a week to complete the solicited dairies, after which time they were interviewed individually to gain in-depth insights into their practice based on their dairies. Participants completed dairies for question 4, which focuses on the way Social Stories are used with the creative arts as follows: diary one, 5-days, diary two, 3-days, and diary three, 4-days.

Elliott (1997, p.8) argues “the process of returning to an informant and accessing different kinds of accounts provides the opportunity to develop a researcher’s understanding of the meaning which informants’ attribute to certain events”. This highlights the usefulness of combining solicited diaries with individual interviews. In my experience during this study, solicited diaries were useful in covering different areas relating to the topic being examined from the participants’ point of view. However, sometimes participants’ answers or descriptions were partial and needed more clarification. For this reason, following up the diaries with individual interviews was very important in terms of clarifying some of the points mentioned. Additionally, participants were more articulate when interviewed, and this enabled them to elaborate on their entries and enrich the information they had noted in the diaries.

3.6.4 Summary of The Research Methods

The mixed use of quantitative methods (questionnaire) and qualitative methods (interviews and solicited diaries) was aimed at providing multiple perspectives by stressing the advantages that each method can offer. The questionnaire offers basic access to the views of a large group of professionals, but cannot explain the reasons underlying their perspectives. The interviews and the diary can together provide rich details about professionals’ views and practices. However, they can only deal with limited number of professionals because analysing qualitative methods requires time

and effort. Therefore, the contribution that mixed methods offers represents greater access to wide range of professionals and a more in-depth understanding of the issue under investigation. The quantitative and qualitative results will be related to each other to “enhance validity, increase explanatory power, and generate a more thorough picture of a research topic” (Guest et al., 2012, p.211). This will be done by using percentages to summarise professionals’ perspectives on the nature, impact and use of Social Stories with the creative arts from the questionnaires, while using thematic analysis to explore and explain the reason behind these perspectives, which are covered in the individual and group interviews and diaries.

3.7 Data Analysis

Creswell et al. (2003) consider that when mixed methods and sequential designs are used, the data for the quantitative and qualitative phases are usually analysed separately. This is done by using “standard data analysis approaches (e.g., descriptive and inferential analysis of quantitative data, coding and thematic analysis of qualitative data)” (ibid, p.232). As this study used QUAN-qual sequential explanatory design, each phase was analysed independently. This section will offer a critical rationale to support the use of descriptive statistics to analyse the quantitative data and thematic analysis to analyse the qualitative data to answer the study questions in a clear and meaningful manner.

3.7.1 Quantitative Data: Descriptive Statistics

This section provides a critical context to the methods of quantitative data analysis and offers a rationale for the approach used. A particular approach to statistics is used in order to analyse quantitative data to help understand and interpret the numerical information (Berman-Brown and Saunders, 2008). Descriptive statistics is defined as “a numerical index that describes or summaries some characteristic of a frequency or relative frequency

distributions” (Frank and Althoen, 1994, p.19). According to Moore et al. (2005) statistical analysis can help researchers describe, summarise and interpret quantitative data in an easy and rapid fashion. Healey (2014) refers to two types of descriptive statistics: the first is univariate descriptive statistics, which is used to summarise or describe a single variable. The second is bivariate descriptive statistics, which are used to describe the relationships between more than one variable (ibid).

Univariate descriptive statistics was used in this study, because it analysed a single variable and was not used for prediction. The advantage of using univariate descriptive statistics, according to Whicker and Miller (1999) is rooted in its simplicity, which makes it easy to understand. This type of analysis can also help to meet the study objectives by using percentages to summarise and describe the main findings from the quantitative questionnaire (Healey, 2014). Also, because the questionnaire consists of categorical and ordinal data, it is suitable for analysis using univariate descriptive statistics (Boone and Boone, 2012; Greasley, 2008).

Percentages are used to summarise the data from the questionnaires. It can also enable researchers to compare differences and similarities in the data very easily (Healey, 2012). Using percentages can therefore help researchers to examine similarities and differences within participants’ perspectives on the use of Social Stories with the creative arts. However, Willis (2006, p.146) argues that questionnaires “are limited in the degree to which they can provide explanations for patterns or consider attitudes and opinions”. This means that percentages cannot provide any justification for the reasons behind their outcomes. Qualitative methods such as interviews were therefore used to gain further insights into the quantitative data (Willis, 2006) and one way to analyse them is by using thematic analysis.

3.7.2 Qualitative Data: Thematic Analysis

Thematic analysis has been used in various disciplines, including education. According to Boyatzis (1998), thematic analysis is a qualitative method that develops codes and themes in order to search for patterns within the raw data

of the research. Fereday and Muir-Cochrane (2006, p.4) refer to thematic analysis as “a form of pattern recognition within the data, where emerging themes become the categories for analysis”. Gibson and Brown (2009) describe thematic analysis as a process that analyses data based on similarities, differences and relationships within a data set. A common feature in thematic analysis that these definitions agree on is the way it is used to generate codes from a dataset to categories different themes that will help researchers answer specific questions. However, the definition provided by Gibson and Brown (2009) puts more emphasis on drawing comparisons and variances and establishing relationships within datasets. Thematic analysis as an approach that consists of coding data sets that are then grouped to form themes. This approach to analysis helps researchers interpret qualitative data and answer the research questions.

There are many benefits to using thematic analysis. According to Braun and Clarke (2006), it is flexible and can help produce a summary of the main points of a study with large datasets. Thematic analysis helps in terms of meaning making by making comparisons between different data sets to show similarities and differences (ibid). Alhojailan (2012) argues that thematic analysis can generate data that are sophisticated and rich in detail. Thematic analysis also requires no experience in qualitative studies or technical knowledge in order for researchers to use the approach (Braun and Clarke, 2006; Javadi and Zarea, 2016).

However, there are several limitations to consider when using thematic analysis. Guest et al. (2012) highlight the issue of reliability because the process of analysing the data relies on interpretation. Another dilemma is that during the analytical process some of the nuanced data might be missed (ibid). Braun and Clarke (2006) argue that although thematic analysis is a flexible method that enables researchers to use a variety of analytical options, this can make it difficult to develop specific guidelines. Another concern identified by Braun and Clarke (2006, p.97) is “that a thematic analysis has limited interpretative power beyond mere description if it is not used within an existing theoretical framework that anchors the analytic claims that are made.” This means that thematic analysis as a method can offer only limited

explanation for a set of data if it is not applied within a theoretical framework. However, using a theoretical framework might not be relevant to the purpose of a study – for example, in terms of developing a theory using thematic analysis. In the current study, a proposed theoretical framework was used to design the data collection methods and guide the analysis and interpretation of the different data sets (see chapter 2).

Braun and Clarke (2006) point out that research questions and broader theoretical assumptions should inform researchers of the best analytical approach to use. As this study aims to interpret professionals' perspectives on the nature, impact and use of Social Stories with the creative arts, thematic analysis, according to Alhojailan (2012), represents the most suitable analytical approach as the study seeks to interpret qualitative findings. Therefore, Braun and Clarke's (2006; 2012) six-stage thematic analysis is used in this study because the stages are presented as a structure that is clear to follow and apply. The six stages used to analyse the interview transcriptions and written diaries are listed in more detail below.

The first stage, according to Braun and Clarke (2006) include the transcription of verbal data, and the approach to transcription used in this study draws on McLellan et al's (2003) guidelines (see appendix H). Participants were assigned a unique number linked with letters representing the qualitative method used, name as pseudonym used with their transcript and in-text citation (see table 3.2).

Table 3.2 Participants' pseudonyms

Method name	Example of participants pseudonym
Individual interview	INin#Participant-1
Focus group interview	FGin#1
Diary	DI-1#Participant-1
Diary interview	Dlin-1#Participant-1

The second stage involves creating initial codes (Braun and Clarke, 2012; 2006). In this process, the data are coded using deductive coding, which is theory driven and inductive coding, which is data driven (Braun and Clarke, 2006; Saunders et al., 2009). Codes across data sets were linked with written extracts (Braun and Clarke, 2006). The data were categorised and coded deductively using the theories proposed, which are social learning theory and multiple intelligences theory. The data were also analysed and coded inductively, based on Marks and Yardley's (2004, p.59) argument that "there would be little point in doing research if one were not simultaneously open to the data and what they might offer anew in terms of the theory's development or refutation". Abduction is applied during the thematic analysis according to Lipscomb (2012), when developing codes and categorising them under themes as this process involves making meaning from the data. Plowright (2011) also considers that the process of abduction helps researchers by offering a clarification in terms of how information from a phenomenon is codified. DePoy and Gitlin (2015) state that in abduction, the reason behind analysing the data is to uncover specific patterns that may or may not be related to proposed theories. Therefore, deductive coding was used to find out whether the subjects participants discussed were similar to or different from the theoretical framework and the inductive coding in order to find out if there are any other areas that participants experienced that could be used to expand on the subjects the theories mention. Within this process, abductive analysis can be used to support the interpretation of the data. This multifaceted approach to analysing data aims to enrich our understanding about the way professionals' views the nature, impact and usefulness of Social Stories with the creative arts.

The third stage comprised searching for themes using the following steps: firstly, similar codes were grouped together (Braun and Clarke, 2012). Secondly, codes were categorised under themes and subthemes (Braun and Clarke, 2006). This stage also involved an exploration of the relationship between themes and to consider the ways in which these different themes would help answer the research questions (Braun and Clarke, 2012). In the fourth stage, all the themes that had been developed were reviewed to make

sure that they were related “to the coded data and entire data set” (Braun and Clarke, 2012, p.65). The aim here was to validate the developed themes and ensure that these themes and codes were relevant to the research questions. Themes should be distinguishable from each other and must contain meaningful data. The transcribed data was therefore reread in this stage to check if there were any codes that could be extracted that could be used within themes. The reviewing passed through two stages. First, codes and extracts within all themes were reviewed to ensure that they represent the meaning of the themes as fully as possible. During this stage some codes were moved to other themes, while others were modified. In the second stage, the codes were reviewed to make sure that all data sets related to each other. When the themes were reviewed, some were linked while others were separated to form new themes. After reviewing all the themes, the thematic map was reviewed to incorporate the changes in order to move onto the fifth stage.

The fifth stage concerned the definition of themes to clarify the nature of the information held within each theme (Braun and Clarke, 2012; 2006). This stage also involved “selecting extracts to present and analyze and then setting out the story of each theme with or around these extracts” (Braun and Clarke, 2012, p.67). The final stage aimed to use the analysed data to form an argument that would answer the research questions (Braun and Clarke, 2012; 2006). This was achieved by representing the qualitative data in the results section and then integrating them with the quantitative data to answer the research questions.

Braun and Clarke (2006, p.86) argue that “analysis is not a linear process of simply moving from one phase to the next. Instead, it is more recursive process, where movement is back and forth as needed throughout the phases”. During the analysis and the writing up I therefore moved between the above-mentioned six stages until I felt that the data had been analysed as effectively as possible to answer the research questions in the best possible way.

3.8 Research Sample

Sampling is generally used to decide who should be involved in a study (Morse and Niehaus, 2009). Mixed methods research, according to Teddlie and Tashakkori (2009, p.182), “involves combining two different types of sample size: large QUAN samples based on well-defined populations and carefully selected smaller QUAL samples based on informal sampling frames”. Two qualitative strategies were used to form the study sample; these strategies were snowball sampling and convenience. These techniques were chosen even though the main phase of the study was quantitative because of time restrictions. I needed “to obtain a sample as quickly as possible (Saunders et al., 2009, p.235)”. Another reason is that the research questions and objectives can be analysed through qualitative sampling as generalisation is not required (ibid).

Snowball sampling was used through the questionnaire or by individuals identifying other potential subjects who they thought could contribute to the study (Cohen et al., 2007; Dragan and Isaic-Maniu, 2013). The use of snowball sampling can be beneficial “when the researcher is trying to find people who have particular experiences or views...[and] they are difficult to access or identify by other means” (Hewitt-Taylor, 2011, p.35). However, the disadvantages of using snowball sampling are that the sample group can be biased and researchers have less power on deciding who will be chosen for their research (Taylor, 2017). A further issue is that searching for participants can be time consuming (Malhotra and Birks, 2006).

Another useful method is convenience sampling, in which a research sample is selected from individuals who are accessible at a specific time (Hewitt-Taylor, 2011; Plowright, 2011). The advantages of this type of sampling, according to Macnee and McCabe (2008), is that it represents an economical way to find participants. However, the sample population usually shows little in the way of diversity, and this can have an impact on losing access to richer information in the topic under investigation (ibid). The sample obtained using convenience sampling is seldom representative of the population (Malhotra and Birks, 2006). In this study, the decision to use snowball and convenience

sampling was based on the usefulness of the method to help identify professionals who have knowledge or experience using Social Stories and/with the creative arts within the timeframe of my thesis.

The research was carried in the UK, using professionals who work with individuals on the autism spectrum in a variety of settings. According to Velasco (2010), the use of inclusion and exclusion criteria helps to identify members of the population who are qualified to take part in a specific research study. In the current study, participants' inclusion/exclusion criteria were as follows: for the question on the nature of Social Stories (Q1), the nature of the creative arts (Q2) and the impact (Q3) of using Social Stories with the creative arts, participants should have some prior knowledge or observed or used only Social Stories. For question four (Q4) on the use of Social Stories with the creative arts, participants should have some prior knowledge or observed or used the creative arts with Social Stories.

Table 3.3 Participant numbers

Method name	Participant numbers
Questionnaire	159 participants
Focus group	9 participants
Individual interview	8 participants
Diary	2 participants wrote 3 diaries
Diary-based Individual interview	2 participants (one of them was interviewed two times)

For the quantitative phase, 159 questionnaires were completed, 22 online through Bristol survey and 137 in hardcopy (see table 3.3). For the qualitative phase, participants were selected from the same quantitative sample (Morse and Niehaus, 2009). Willis (2006, p.147) noted that "at the end of the questionnaire you can ask people to indicate whether they would be willing to be interviewed". The number of participants that make up focus groups according to McLafferty (2004, p.190) "is one of the more contentious issues,

as there is little consensus as to what is most appropriate". For instance, the number of interviewees in each group can be from 4 to 8 (according to Marks and Yardley, 2004), or 6 to 10 (according to Morgan, 1996), or 6 to 8 (according to Lloyd-Evans, 2006).

In the current study, eight female participants and one male participant working in a school agreed to take part in the focus groups interviews (see table 3.3). The nine participants were split into two groups, one consisting of four interviewees and the other five interviewees. This approach to grouping participants was designed to have the best possible mixture of experience. One group consisted of an assistant head, an outreach service worker and two teachers. The other involved an outreach teacher, an associate head and three teachers. I felt that the use of a small group would be more useful because it is manageable and participants would have enough time to express their views (Morgan, 1996). For the individual interviews, eight participants were interviewed, seven of whom had taken part in the focus group interviews (see table 3.3). There were seven female participants and one male participant. For the solicited dairies, only two female participants agreed to take part (see table 3.3). One worked in a school and the other in an art therapy setting. However, they provided three dairies as one of them kept two. Both these participants also took part in the diary-based individual interviews.

3.9 Validity in Mixed Methods Research

The uses of terminology differ in quantitative and qualitative studies. While the term validity is usually used within quantitative research, advocates of qualitative methodology use terms such as trustworthiness, credibility, authenticity, dependability and plausibility (Onwuegbuzie and Johnson, 2006; Tashakkori and Teddlie, 2008). These different terms for analytical validity led some researchers to propose new terminologies to use in mixed methods research such as legitimation (Onwuegbuzie and Johnson, 2006). Tashakkori and Teddlie (2008, p.2) also suggest using inference qualities to refer to internal validity "for evaluating the quality of conclusions that are made on the

basis of the findings in a study". In addition, they define a meta-inference as "an overall conclusion, explanation, or understanding developed through an integration of the inferences obtained from the qualitative and quantitative strands of a mixed methods study" (ibid, p.101). All these proposed terminologies can be beneficial to adaptation with mixed methods research. According to Ithantola and Kihn (2011, p.12), "the new umbrella terms allow us to address some more specific forms of validity in mixed methods research. In so doing, they decrease the need to rely on quantitative and qualitative terms only". The new terms also offer a common ground for researchers in mixed methods, allowing them to express and discuss how they approach validity. The present study will use validity terms that are used within quantitative, qualitative and mixed methods research.

Assessing validity in mixed methods research can be a complicated process. According to Ithantola and Kihn (2011, p.18):

Even if the validity and reliability is good during the data collection stages, there may be other issues during data analysis and interpretation. In addition, even if the quality of the quantitative and qualitative parts of the research is excellent, problems may still occur in validating the meta-inferences of mixed methods research.

The authors refer to the possibility of experiencing validity problems during some stages of the research, despite the fact that validity is considered good during other stages. This means that it is difficult to ensure validity throughout all the stages of a study when using mixed methods research. However, the aims behind using different validity approaches, as Guest et al. (2012, p.8) argue are to: "(a) decrease the likelihood of making critical mistakes and unfounded leaps of logic and (b) increase the degree of transparency within a study, thereby making it easier for others to judge its merit". This shows that the importance of following a clear procedure to validate a study is to help reduce the chance of making errors. It also makes research programme more transparent, allowing different readers to evaluate its quality. To improve the quality of this study, the Onwuegbuzie and Johnson (2006) legitimation

framework was adapted, in which legitimation is perceived as an ongoing process that should happen at different stages in mixed methods research. The following section discussed the relevant legitimation types for the present study.

3.9.1 Outside Legitimation

This approach focuses on the use of outsider perspectives such as peer review to check “the interpretations being made, the conceptualizations, and the relationship between the data and the conclusions” (Onwuegbuzie and Johnson, 2006, p.58). This strategy can be used for the quantitative and qualitative aspects of the study as well as after the results have been integrated. The reason for using peer review is to help reduce researchers’ bias. Johnson (1997) argues that researcher bias can be a threat to the validity of research. It can result “from selective recording of information, and also from allowing one’s personal views and perspectives to affect how data are interpreted and how the research is conducted” (ibid, p.284). In order to overcome this issue, Roberts et al. (2006) point out that regular meetings with supervisors can be used as way to validate the study analysis and the results. In this study, supervision meetings were used to review the quantitative data. After the qualitative data analysis had been completed, the research supervisor checked the codes and themes for the diary, focus groups and individual interviews as well as the interpretation of their findings. However, Penton (2010) argues that using this type of validity does not necessarily mean that equal thematic findings will be achieved by both reviewers, but it will at least make sure that it is easy to understand the reasoning that underlies the analysis. The integrated data (meta-inferences) were also reviewed by the supervisor to ensure that an integrated perspective from the quantitative and qualitative data can be offered.

3.9.2 Weakness Minimization Legitimation

This approach looks towards minimizing the weaknesses of one method by

relying on the strengths of another. This requires careful consideration when designing the research and interpreting the outcomes. Onwuegbuzie and Johnson (2006, p.58) argue that:

The greater the extent that the weakness from one approach [are] compensated by the strength from the other approach, the more likely that combining a weak inference with a strong inference will lead to a superior or higher quality meta-inference.

This study used different methods in order to reduce the limitations of each approach using the strength of others. For example, a common weakness associated with questionnaires is in the way they offer only a limited understanding of a phenomenon. To reduce this effect, interviews were followed up to provide in depth perspectives. More explanations and examples are offered under the methods section.

3.9.3 Sequential Legitimation

There is a possibility that the meta-inference obtained through a sequential mixed methods design could mainly be the result of the sequencing itself. For instance, if the outcomes and interpretations of the study differ when reversing the quantitative and qualitative phases, this could indicate “that the sequencing itself was a threat to legitimation” (Onwuegbuzie and Johnson, 2006, p.58). Onwuegbuzie and Johnson (2006) refer to a solution offered by Sandelowski (2003), who used a multiple wave pattern to assess the legitimations of sequential design. Although this solution might be useful, it would be difficult to adapt within the time frame of this study. I also believe that the proposed solution is mainly based on another design that has its own strengths and limitations and that it would therefore be problematic to use it as evidence to ensure the legitimation of the sequential design used in this study. Another way of validating the effect of the design is by checking that the results of the follow-up methods helped support the core method by offering a deeper explanation of the phenomenon under investigation.

Dellinger and Leech (2007, p.327) argue that when sequential mixed methods design is used, “the researcher may need to use the quantitative criteria and/or the qualitative criteria separately”. However, the authors do not explain the reason behind this argument or suggestion. I adapted this view because the quantitative and qualitative data in this study possessed different criteria to examine a validity that might be difficult to apply using both methods. One example of this is when I piloted the study instruments.

3.9.4 Paradigmatic Mixing Legitimation

This involves integrating quantitative and qualitative methods that can occasionally be considered weak because of opposing dualisms. However, two solutions can be used to address this issue. The first is to consider both quantitative and qualitative views and assumptions under separate headings, which then allows meaning to be considered from both standpoints. The second way “is to think in terms of continua rather than dualisms and then take more moderate positions on each continuum” (Onwuegbuzie and Johnson, 2006, p.59). This solution is in line with the pragmatism philosophy that this study uses. Onwuegbuzie and Johnson (2006) argue that legitimation occurs when a researcher makes an explicit use of paradigmatic assumptions and then carries out a study that fits these noted assumptions. In this study, legitimation was achieved by connecting this research to pragmatist philosophies and keeping them in mind throughout the different stages of the study – such as when selecting the research methods and analysis (more details are provided under the philosophical paradigm section).

3.9.5 Commensurability Legitimation

Researchers using mixed methods need to learn how to switch “from a quantitative lens to a qualitative lens” (Onwuegbuzie and Johnson, 2006, p.59) and move back and forth between the two approaches. This iterative procedure can lead to a third perspective “that is informed by, is separate from, and goes beyond what pure quantitative or qualitative views can

offer”(ibid). This study used abductive reasoning as a way of achieving a Gestalt switch. Abduction in this case enabled the researcher to move back and forth between deductive and inductive reasoning. These movements between quantitative and qualitative datasets helped to offer an integrated perspective that added to the legitimization of the study. More explanation about the use of abductive reasoning is covered under the pragmatism section.

3.9.6 Multiple Validities Legitimation

This type of legitimization covers the use of relevant validity strategies for quantitative and qualitative aspects as well as mixed legitimization for the integrated parts that can lead to “high quality meta-inferences” (Onwuegbuzie and Johnson, 2006, p.57). This type of legitimization is used when designing the data collection methods, data analysis and data interpretation. In the instrument design stage for the questionnaire, face and content validity were used. The interviews and diary questions were pre-tested by participants to assess the clarity of the tools used and provide suggestions for improvement (see Appendix H). However, as the qualitative methods were tested before the questionnaire stage was completed, they were developed further in order to help understand and interpret the questionnaire findings.

At the data analysis stage, Guest et al. (2012) suggest documenting the process of coding to generate themes. This documentation can “provide information for others to make informed assessments regarding the credibility of the research findings and interpretations” (ibid, p.8). Morse and Niehaus (2009) also consider that themes and data interpretations should be supported with quotes from the data (Guest et al., 2012). Roberts et al. (2006, p.44) argue that “it is important that the selection of illustrative quotations does not introduce bias by ‘cherry picking’ the most vivid examples from the research. They should reflect the range and tone of responses generated”. The study used these approaches when analysing and presenting the result of the qualitative data.

At the Integration and interpretation stage, Creswell (2003) points out that the use of data triangulation can help researchers to check the accuracy of their study outcomes. Guest et al. (2012) argue that when different methods lead to similar results, this can increase the validity of the findings. Morse and Niehaus (2009, p.60) also recommend that “for the sake of clarity and critical reviewers, it is important to ‘tag’ or label findings so that the source of each finding may be identified”. The different methods used within this study to a large extent showed similar and supportive results. All the quantitative and qualitative data were tagged to distinguish each method used to contribute to the overall findings.

The use of the above ways of legitimation was helpful in offering a framework on which to evaluate the process of conducting a mixed method study. The value of legitimization can be seen in providing a careful consideration of different stages of the research. This will hopefully improve the quality of the research as much as possible and offer a clear guidance so that readers can understand how legitimation was achieved.

3.10 Research Ethics

The literature contains parallels and debates about the theory and practice of ethics. This study followed the ethics guidelines of the British Educational Research Association (BERA, 2018) concerning informed consent, confidentiality and incentives. These areas will be addressed in the following section.

The idea of informed consent was developed on the basis of individual rights (Cohen et al., 2007). Hewitt-Taylor (2011, p.37) argues that it is important that “participants understand the study’s purpose, what is required of them, what the risks and benefits of participating are and how the result will be used”. Participants should know that they have the right to withdraw from a project at any stage without fear of consequences (Gray, 2009; Hewitt-Taylor, 2011). The importance of informed consent arises from its role in forming a clear relationship between researchers and participants (Cohen et al., 2007). Orb et

al. (2001) argue that using participants' quotations might disclose their identity despite the fact that anonymity has been insured and that any quotation should require their approval. As stated in BERA (2018), informed consent was obtained at the start of the research from all participants. The participants were also informed that their data would be used in a PhD thesis and for publication, and they could withdraw from the research at any time should they prefer to.

Another ethical consideration is confidentiality. This is understood as ensuring that participants are not identifiable through any information they offer (Cohen et al., 2007). Confidentiality, according to Gray (2009), is an important aspect of research ethics that must be applied to all research data in order to protect participants' information. As well as distributing paper questionnaires, the study used web-based questionnaires, which might lead to further ethical issues in terms of anonymity and confidentiality. Roberts and Allen (2015, p.101) argue that "no online transaction can be guaranteed as completely secure due to the potential for hacking and other malicious activity". Allen and Roberts (2010) also state that a major concern is linked with using external hosting services, as researchers have limited control in terms of who can or cannot access their data. Another concern is linked with the transmission of data from an external host to researchers (ibid).

In response to these threats, Allen and Roberts (2010) suggest that researchers use university-hosted internet services that are developed and controlled by people familiar with research ethics to protect participants' data. This was considered and achieved by using the University of Bristol Online Survey (BOS). Additionally, after data had been gathered the account that accessed the online survey was closed. Although participants' anonymity might be threatened by collecting computer IP address, it was not possible to link these with a particular user (Allen and Roberts, 2010).

The qualitative research also raises ethical issues (Orb et al., 2001). For example, the focus group interview raises the issue of confidentiality. In order to overcome this problem, participants should be aware of the importance of preserving the confidentiality of the group and its participants (Marks and

Yardley, 2004). When participants gave examples about individuals whom they worked with, they anonymised their identity and their gender. However, there was one instance where one participant mentioned a name, which might be for a student, and this was anonymised. Each participant's identity was kept anonymous by using pseudonyms (BERA, 2018; Orb et al., 2001). The research data remained under the researcher's protection and was kept in a safe place (BERA, 2018). All data were saved in the researcher's personal laptop.

Another area of ethical consideration surrounds the use of incentives. According to Erlen et al. (1999, p.86) incentives "are inducements; they can influence decisions that another person makes. They entice and motivate people to engage in particular activities. They provide a stimulus for action". Grant and Sugarman (2004, p.720) note that "an incentive is a benefit designed as a motive or incitement to action". These definitions also refer to the use of incentives as a motivational way of encouraging a specific action or form of participation, while Erlen et al. (1999) also mention the effect of incentives on decision-making. This means that incentives are stimuli used to reach a specific goal such as making a decision or encouraging participants' to engage in a research project.

BERA (2018) suggest that when using incentives to promote participation, the nature of incentives should not affect the participants' overall decision to take part in a piece of research or a study. Erlen et al. (1999) argue that although the use of incentives in research is seen as coercive, they are offered to participants who have a choice as to whether they accept it or not. Lloyd-Evans (2006, pp.158-159) also states that "it is increasingly recognized that researchers should value their participants' inclusion in a research project by offering an incentive or gift of some kind". Head (2009) discusses the importance of not overemphasizing the unfavorable effect of offering financial incentives as an ethical research issue because it often makes studies feasible when they would not otherwise have been. Dialsingh (2008) also believes that the use of incentives can be a means of encouraging more responses.

When Lloyd-Evans (2006) and Dialsingh (2008) discuss the use of interviews, they refer to the use of incentives as way of showing that participants' efforts in taking part in a piece of research is appreciated. Similarly, McGregor (2006, p.202) mentions that most researchers when using the diary method:

...have paid informants or offered a gift for the finished diary, in recognition of the amount of time and effort required, in understanding of some participants' struggles to make ends meet, and perhaps to allow the diary-writer to forgo other work in order to complete the diary.

This highlights some of the benefits of providing diary writers with incentives, because spending time to engage with writing and thinking about past experiences can be demanding and time consuming. Lloyd-Evans (2006) also mentions that it is becoming common in the UK to offer participants different forms of incentives to express appreciation. As this study was conducted in the UK, incentives were proposed and offered to participant who took part in the qualitative process as a motivational tool and as a token of appreciation for their time and effort. Participants were given a £25 voucher after they had completed individual and focus group interviews, as well as a £40 voucher for diary and diary-based individual interviews. However, the decision to use incentives was made during the early distribution of the questionnaire. The reason for this is that I found that none of the participants who completed the questionnaire were willing at the early stages to participate in the qualitative methods (interviews and diary), and that this would affect the implementation of the mixed methods study design.

The issues of informed consent, anonymity and confidentiality and incentives were considered as an essential part of the study. Ethics were also considered through the use of the different research methods. This study was been reviewed and approved by the UCL IOE Research Ethics Committee.

3.11 Pilot Study

A pilot study is a small version that represents the testing of a larger study

(Jairath et al., 2000; Van Teijlingen and Hundley, 2002). Kilanowski (2006) points out that carrying out a pilot study can be a critical step that produces different information related to research procedure, and potential findings that can be used to inform best practices in the main study. There are many reasons for conducting a pilot study. It can be used to evaluate how well the whole research process works together (Arain et al., 2010) or to uncover areas that require improvement (Van Teijlingen and Hundley, 2002). Pilot studies, according to Van Teijlingen and Hundley (2002) and Prescott and Soeken (1989), are useful tools for testing research instruments. Jairath et al. (2000) also indicates that a pilot study can be helpful “to identify issues related to study conceptualization, design, sample size and selection, data collection procedures, and approaches for data analysis”. Kim (2010) argues that a pilot study can be an important step in helping researchers to readjust and modify their main study. There are also other important aspects that can be examined using a pilot study. Prescott and Soeken (1989) suggest testing the time participants need to complete vital parts of the study, to check whether there are any ambiguities related to research terminology and to establish the clarity of the instructions. Beebe (2007) identifies the usefulness of a pilot study in ascertaining the best way of recruiting participants and noting any unforeseen obstacles that researchers might face. My decision, therefore, to carry out a pilot study was informed by different authors. Kim (2010), Van Teijlingen and Hundley (2002) and Prescott and Soeken (1989) focused my attention on the importance of evaluating research instruments as well as improving the study process before conducting the main study. Prescott and Soeken (1989) influenced my decision to examine the clarity of meaning of the research instruments. Beebe (2007) drove me to discover the usefulness and limitations of the different methods of recruiting participants. In the following sections, I will outline the pilot study process I used to test the quantitative and qualitative methods.

3.11.1 Quantitative Methods

The pilot study was aimed at testing the validity and reliability of the

questionnaire. The following sections discuss the meaning of validity and reliability and explain how it was achieved.

3.11.1.1 Validity. According to Lynn (1986) and Masuwai and Saad (2016), validity is the degree to which an instrument represents the intended result. In other words, validity refers to the ability of an instrument to measure a proposed impact. According to Oluwatayo (2012), there are four types of validity that can be used in educational research: 1) face validity, 2) content validity, 3) construct validity and 4) criterion-related validity. This study used face and content validity to test the rigours of the questionnaire because these two types were considered the most suitable for meeting the research purpose. In addition, the use of face and content validity as a method of evaluation could be helpful in modifying and improving the questionnaire.

Face validity, according to Oluwatayo (2012, p.392), denotes “researchers’ subjective assessments of the presentation and relevance of the measuring instrument as to whether the items in the instrument appear to be relevant, reasonable, unambiguous and clear”. This means that face validity as a method can offer subjective feedback on the layout and the suitability of an instrument based on specific criteria selected by researchers. It could be argued that targeting a wide range of professionals might be helpful in gathering different views concerning the questionnaire in order to improve it. This inspired me to invite participants and experts to provide their feedback on the questionnaire. Participants were asked to comment on the use and layout of the questionnaire and the clarity of the questionnaire’s questions. They were also asked to offer any suggestions to improve the questionnaire’s content. The panel of experts were also asked for their qualitative comments on the questionnaire.

Content validity, according to Lynn (1986), shows the ways in which the items of an instrument can represent a specific area that it proposes to cover based on two stages, namely instrument development and judgment evaluation. The first stage is carried out by researchers through designing the content of the instrument. The second stage involves gathering experts’ feedback on the

developed instrument in order to examine content validity. Oluwatayo (2012, pp.392-393) states that content validity “focuses on the extent to which the instrument of measurement shows evidence of fair and comprehensive coverage of the domain of items that it proposes to cover”. Ary et al. (2014) argue that content validity is not based on a numerical index, but reflects the results of expert examination that can provide information concerning the relevance of the instrument content to its domain. Oluwatayo (2012) argues that experts in the field usually evaluate content validity through pilot studies. To this end, a number of professionals were invited to form an expert panel to test the content validity of the questionnaire. It is important that an expert panel is created based on the specialty of its participants in the area that is relevant to a research. As Wynd and Schaefer (2002) indicate, experts are usually selected because of their knowledge and expertise in specific areas of the research. Gobo and Mauceri (2014) argue that experts’ views can provide valuable ways of assessing the relevance of the items present as part of an instrument of study, as well as terminology and response categories. Lynn (1986, p.383) suggests that the number of experts involved in assessing the content validity of a study should be between 5 and 10 in order to provide “a sufficient level of control for chance agreement”.

The content validity of an instrument can be identified by calculating its Content Validity Index (CVI). The CVI, according to Masuwai and Saad (2016, p.19) “does not indicate the level of agreement; rather it measures the proportion of agreement among a group of experts”. According to Lynn (1986) the CVI can provide an indication of which items are appropriate as they stand and which need revision or exclusion. There are two types of Content Validity Index (CVI) (ibid). One is used to measure individual items (I-CVI) and the other is to measure the overall scale-level (S-CVI). The following section will describe the ways in which this study used both types to calculate the Content Validity Index (CVI) of the questionnaire.

The content validity of individual items (I-CVIs) shows if an item is valid or not. Based on Lynn’s (1986) criteria, items with I-CVIs of 0.83 or higher remain part of the final instrument, while items with I-CVIs less than 0.78 are excluded or revised. This means that in order to have I-CVIs with 0.83, only

one of six raters needs to rate an item as being not relevant (Lynn, 1986). The I-CVIs were calculated according to Polit and Beck (2006, p.491), who state that “the number of experts giving a rating of 3 or 4 (thus dichotomizing the ordinal scale into relevant and not relevant), [should be] divided by the total number of experts”. This method was used to calculate the I-CVIs for the questionnaire items.

In terms of the content validity for the scale-level (S-CVI), this includes two types: S-CVI/UA and S-CVI/Ave. According to Polit and Beck (2006, p.492), the S-CVI/UA represents “the proportion of items on an instrument that achieve a rating of 3 or 4 by all the content experts”. The S-CVI/Ave is “the average proportion of items rated as 3 or 4 across the various judges” (ibid, p.492). This study used the S-CVI/Ave approach because the CVI/UA “is overly stringent when there are many experts on the validation panel. It seems excessively conservative to demand 100 percent agreement” (ibid, p.495). The acceptable value of S-CVI/Ave as recommended by Waltz et al’s (2005) study is 0.90 or higher (cited in Polit and Beck, 2006, p.496). The CVI/Ave was calculated by adding the I-CVIs together and dividing them by the total items to gain an average figure (ibid). This method was used to calculate the CVI/Ave for the scale items in the questionnaire.

In this study, the expert panel consisted of six experts from the fields of autistic spectrum conditions and the creative arts for individuals on the autism spectrum. The questionnaire was distributed to the panel of experts by email. Two emails were sent; the first one included a cover letter to invite experts to look at the questionnaire in order to decide if they could offer any input. This email included a copy of the questionnaire and an information sheet (see appendix I). Experts were also provided with instructions on how to rate the items on the questionnaire. The second email was a follow up email to find out if experts would like to take part in evaluating the questionnaire. The experts rated the relevance of each item in the questionnaire based on a four-step rating scale from 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant (Lynn, 1986). Additionally, a section was added for experts to write their comments and suggestions concerning items content if they felt that any

aspect of the questionnaire needed alteration (Lynn, 1986; Wynd and Schaefer, 2002).

3.11.1.2 Reliability. Another way of testing the adequacy of the questionnaire was through measuring its reliability. According to Ary et al. (2014, p.253), “the reliability of an instrument is the degree of consistency with which it measures whatever it is purported to measure”. Oluwatayo (2012) indicates that for a study to be considered reliable, it should be able to obtain the same results when it is replicated with a similar group of people in a similar situation. The study used internal consistency to measure the reliability of the questionnaire. Drost (2011, p.111) considers that “internal consistency measures consistency within the instrument and questions how well a set of items measures a particular behaviour or characteristic within the test”. As noted by Oluwatayo (2012), internal consistency as a method of reliability is aimed at testing the homogeneity of different items within an instrument.

A common method of examining internal consistency is by using Cronbach’s alpha (Drost, 2011). Vargas and Luis (2008, p.898) state that “Cronbach’s alpha measures whether a group of items (or variables) is really related to a single construct or factor”. In order to have a high Cronbach’s alpha it is essential to have a high average correlation within a set of items. When a number of items show a high internal correlation, this indicates that these sets of items are measuring a similar construct (ibid).

Cronbach’s alpha numerical values guidelines were reported by Cohen et al. (2007, p.506) as follows:

> 0.90	very highly reliable
0.80 – 0.90	highly reliable
0.70 – 0.79	reliable
0.60 – 0.69	marginally/minimally reliable
< 0.60	unacceptably low reliability

The reliability of the questionnaire was measured according to guidelines set out by Cohen et al. (2007).

The sample size suggested for piloting an instrument is 30 participants (Johanson and Brooks, 2010) or from 20 to 40 participants (Hertzog, 2008). For the pilot study used in this research, 30 participants took part in completing the questionnaire. This number, according to the literature, can be sufficient to analyse the results of the pilot study using Cronbach's alpha.

According to Oluwatayo (2012), the first step in measuring the internal consistency of an instrument is by administering it to a group of respondents. Following this, the instrument scores are analysed using a suitable statistical approach. The questionnaire was administered through different channels including email, LinkedIn, Twitter and in person at courses or events for autism spectrum conditions. After the data were gathered, SPSS software was used to calculate Cronbach's alpha (see the results appendix J).

3.11.2 Qualitative Methods

The study also used qualitative methodologies. According to Guest et al. (2012, p.85) "pretesting facilitates validity by ensuring questions make sense to participants". The pilot study tested the interview protocols and the diary. The literature shows examples of researchers who piloted their interviews such as Kim (2010) and Sampson (2004). Kim (2010) piloted her semi-structured interview protocol using two participants. After the interview sessions were completed, the researcher transcribed the interview discussions. Kim (2010) asked the participants to check the transcription and provide feedback concerning the interview process. Kim (2010) found that the pilot interview helped her to modify the interview questions as well as some of the terminologies. In another study, Sampson (2004) noted that after each interview, the participants were asked how they found the interview and whether they thought anything needed to be changed or added. However, the author did not find the interviewees helpful in providing comments or recommendations concerning the interview protocol. Sampson (2004, p.396) states that:

Asking for interview feedback entailed a somewhat unreasonable set of expectations. Having just got through a long and detailed interview, how could I reasonably expect my respondents to suddenly distance themselves from the process and analytically reflect upon it? I wondered how much of it they would even be able to recall at such a moment.

It might be very demanding to ask participants to respond or reflect immediately after an interview. It might be better to ask the participants for their opinions about the interview after they have gone through their interview transcription, as Kim (2010) did.

For my pilot study, two participants were invited to evaluate the clarity of the questions and their meaning for the focus group and individual interviews, the diary-based individual interviews (see appendix K) and the solicited diary (see appendix L). The background of the participants differed: one was a PhD student focusing on autism and the other was a psychologist and educational consultant working for people with special needs including autism. The participants rated the clarity of each question in the interview protocol and the diary based on a four-stage rating scale from 1) not clear, 2) unable to assess clarity without item revision, 3) clear but needs minor alteration, and 4) very clear. A section for participants to add their suggestions was also included. After the responses had been received, they were analysed and any necessary changes were made to prepare the instruments for the main study (see the results appendix M).

3.12 Chapter Summary

This chapter discussed the research design and methodology. Pragmatism is the philosophical paradigm that underpins the use of mixed methods in this research. A mixed method QUAN-qual sequential explanatory design is used to examine professionals' perspectives and practices on the use of social stories and the creative arts for autistic individuals in the UK. In this design, the core phase is quantitative, and this is followed by a qualitative analysis. A questionnaire was implemented to obtain answers that could be quantified, and then a series of qualitative methods were followed, including focus

groups, individual interviews, solicited diaries and diary-based individual interviews. To analyse the quantitative data, descriptive statistics based on percentages were used. A thematic analysis was undertaken in order to analyse the qualitative data following the six-stage approach used by Braun and Clarke (2006) and (2012). The study adhered to the legitimisation framework provided by Onwuegbuzie and Johnson (2006) to validate mixed methods research. British Educational Research Association (BERA, 2018) ethical guidelines were followed regarding informed consent, confidentiality and incentives. Chapter 4 presents the quantitative and qualitative findings.

Chapter 4: Results

4.1 Introduction

This chapter presents the research findings. The study used a mixed methods sequential explanatory design to analyse professionals' perspectives on the nature, impact and use of Social Stories with the creative arts for individuals on the autism spectrum. The data will be presented according to the sequence of the study design. The first section will examine the quantitative findings, and the second will present the qualitative findings.

4.2 Phase One: Quantitative Results

This section will begin by assessing the participants' background information. Following that, four of the research questions will be answered using descriptive statistics. Some of the quantitative findings will be supported with visual evidence, some of which will be included within the text and others in appendices.

4.2.1 Background Information of Professionals' Respondents

These results look at the 159 participants who completed section (B) of the questionnaire. The majority of the participants (93.7%) come from the United Kingdom and there was representation from England, Scotland and Wales. The remaining participants (6.3%) come from other backgrounds, but are working in the UK (see table appendix N). Most of the participants (70.4%) are working in a school setting. Other participants (18.7%) work in different settings ranging across the education and health sectors, including social care, adult services, a mixture of clinics, local authority educational psychology services, museums and outreach support services (see table appendix N).

Around two thirds of the participants' (65.3%) held educational titles such as special education teacher, therapist, teaching assistant, non-arts teacher,

researcher, arts teacher, ABA specialist and Special Educational Needs Coordinator (SENCO). The remaining one third (34.6%) had other job titles ranging across educational and health contexts, including advisory teacher for autism, ASD resource manager, assistant head of outreach service, associate head teacher (SEN), chemical mental health practitioner, clinical psychologist, drama therapist, early years autism specialist, educational psychologist, health and care plan coordinator, learning support assistant, nurse, occupational therapist, specialist community nursery nurse and speech and language therapist (see table appendix N). The majority of the participants (78.6%) worked with children on the autism spectrum. Only a few participants (10.7%) indicated that worked with adults on the autism spectrum or with both children and adults.

Table 4.1 Area of expertise

Area of expertise	Percent
I use Social Stories without the creative arts.	45.3%
I have observed Social Stories being used.	10.7%
I have some knowledge of Social Stories.	32.1%
I use Social Stories with the creative arts.	5.0%
I have observed Social Stories being used with the creative arts.	2.5%
I have some knowledge of Social Stories with the creative arts.	3.8%
Other	0.6%

Table (4.1) shows that most of the participants used Social Stories without the creative arts (45.3%). Some participants have some knowledge of Social Stories (32.1%) or have seen them being used (10.7%). However, few participants (11.3 %) have used, observed or have any knowledge of using Social Stories in conjunction with the creative arts. Only one participant referred to other approaches such as inclusive design methods.

In terms of work experience, 66.0% of participants had 1-5 years of experience. 21.4% of participants had 6-10 years' work experience, and 12.6% had more than 10 years' experience.

4.2.2 Q1. What Are Professionals' Perspectives on The Nature of Using Social Stories for Individuals on The Autism Spectrum?

Table 4.2 The nature of using Social Stories

Questions	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1) It is important for individuals to concentrate when learning Social Stories.	—	8.2%	13.8%	68.6%	9.4%
2) When engaging with Social Stories individuals need to concentrate in order to understand the Story.	0.6%	9.4%	17.0%	65.4%	7.5%
3) When learning Social Stories any disturbance can reduce individuals' ability to understand the Story.	1.3%	17.0%	26.4%	45.9%	9.4%
4) It is essential that individuals understand the content within Social Stories.	0.6%	6.9%	14.5%	50.3%	27.7%
5) Engaging with Social Stories can help individuals to create change in their own lives.	0.6%	.6%	11.3%	55.3%	32.1%
6) Remembering the content of Social Stories can help individuals to relate the Story to changes in their own lives.	0.6%	3.1%	8.8%	68.6%	18.9%
7) Motivation is important for individuals to be engaged with Social Stories.	—	8.2%	15.7%	46.5%	29.6%
8) In my experience, Social Stories are more effective for individuals when used alongside other intervention strategies.	—	2.5%	28.3%	35.8%	33.3%

Table (4.2) demonstrates participants' views and perspectives on the nature of using Social Stories. The combined percentages of respondents who agreed and strongly agreed with the points raised showed high levels of agreement between participants. For example, almost similar percentages were recorded for participants concerning the concept that remembering the content of Social Stories can help individuals to relate the Story to changes in their own lives (87.5%) and the idea that engaging with Social Stories can help individuals to create change in their own lives (87.4%). A similar high percentage of agreement was reached by participants (78%) in response to the importance of concentration when learning Social Stories and understanding the contents of the Stories. Participants also agreed that motivation is an important factor for individuals to become engaged with Social Stories (76.1%) and that they need to concentrate in order to understand the Story (72.9%). Another area of high agreement concerning Social Stories was that they are more effective for individuals on the autism spectrum when used alongside other intervention strategies (69.1%). Slightly over half of the participants (55.3%) agreed that when learning Social Stories, any disturbance could reduce individuals' ability to understand the Story.

4.2.3 Q2. What are Professionals' Perspectives on The Nature of Using The Creative Arts for Individuals on The Autism Spectrum?

Table 4.3 The nature of using the creative arts

Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1) Participating in the creative arts in general can encourage individuals to develop imaginative thinking.	—	2.5%	22.0%	54.1%	21.4%
2) Participating in the creative arts in general can enhance individuals' ability to remember information.	—	3.8%	35.8%	46.5%	13.8%
3) Participating in the creative arts in general can help individuals to communicate their understanding of any experience.	.6%	5.0%	29.6%	49.1%	15.7%
4) Participating in the creative arts in general can help individuals to represent social experience and make them more comprehensible.	.6%	3.8%	27.0%	56.0%	12.6%
5) Participating in the creative arts in general can increase individuals' motivation to learn.	—	5.0%	30.2%	47.2%	17.6%
6) Participating in the creative arts in general can enable individuals to communicate because they stimulate verbal communication.	.6%	8.8%	26.4%	47.8%	16.4%
7) Participating in the creative arts in general can enable individuals to communicate without using words.	.6%	1.3%	14.5%	54.7%	28.9%
8) Participating in the creative arts in general can help individuals to express their feelings.	.6%	3.1%	14.5%	52.8%	28.9%
9) Participating in the creative arts in general can help reduce individuals' levels of stress.	—	3.8%	25.8%	49.1%	21.4%
10) Participating in the creative arts in general can help reduce individuals' levels of anxiety.	—	5.0%	27.7%	44.0%	23.3%

Table (4.3) illustrates participants' perspectives on the nature of using the creative arts. The combined percentages of respondents who agreed or strongly agreed showed that most participants agreed that the creative arts in general can enable individuals to communicate without using words (83.6%) and that the creative arts helped them express their feelings (81.7%). Participants also strongly agreed that the creative arts could help individuals to develop imaginative thinking (75.5%) and reduce their stress levels (70.5%). Respondents also agreed that participating in the creative arts in general can help individuals represent social experience and make such experience more comprehensible (68.6%) and reduce their anxiety levels (67.3%). A similarly high percentage (64.8%) agreed that the idea participating in the creative arts in general can help individuals to communicate their understanding of their experiences and improve their motivation to learn. Participants also agreed that the creative arts in general enable individuals on the autism spectrum to communicate, because they stimulate verbal communication (64.2%) and enhance their ability to remember information (60.3%).

4.2.4 Q3. What are Professionals' Perspectives on The Impact of Using Social Stories in Conjunction With The Creative Arts for Individuals on The Autism Spectrum?

Table 4.4 The impact of using Social Stories with the creative arts

Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1) Using Social Stories with the creative arts can help individuals to concentrate.	.6%	1.9%	49.1%	41.5%	6.9%
2) Using Social Stories with the creative arts can improve individuals' ability to understand the Story.	.6%	2.5%	39.0%	49.1%	8.8%
3) Using Social Stories with the creative arts can increase an individual's ability to remember the Story content.	.6%	3.1%	37.1%	50.3%	8.8%
4) Using Social Stories with the creative arts can enable individuals to communicate their understanding of the Story.	.6%	1.9%	39.6%	52.2%	5.7%
5) Using Social Stories with the creative arts can increase individuals' ability to perform the content of the Story.	.6%	1.9%	42.1%	50.3%	5.0%
6) Using Social Stories with the creative arts can encourage effective communication between professionals and individuals.	.6%	2.5%	44.0%	45.3%	7.5%
7) Using Social Stories with the creative arts can motivate individuals to engage with the Story.	.6%	1.9%	33.3%	52.2%	11.9%

Table (4.4) shows participants' perspectives on the impact of using Social Stories with the creative arts. The combined percentage of respondents who agree or strongly agree indicated that roughly two thirds of the participants

agreed that using Social Stories with the creative arts can motivate individuals to engage with the Story (64.1%) and increase their ability to remember the Story content (59.1%). A slightly lower percentage of participants (57.9%) agreed that the use of Social Stories with the creative arts would improve individuals' ability to understand the Story and enable them to communicate that understanding. 55.3% of participants agreed that using Social Stories with the creative arts could increase individuals' ability to perform the content of the Story, while 52.8% agreed that it could encourage effective communication between professionals and individuals (52.8%). However, for the question about using Social Stories with the creative arts to help individuals concentrate, the joint percentage of respondents who agreed or strongly agreed (48.4%) was slightly lower than those who were undecided (49.1%).

4.2.5 Q4. How Do Professionals Approach The Use of Social Stories With The Creative Arts for Individuals on The Autism spectrum?

This question relates to section (C) of the questionnaire, which only professionals who have experience in using Social Stories with the creative arts were asked to answer. This expertise was relevant to only 18 out of 159 participants who took part in section (B) of the questionnaire. In order to know more about the 18 participants' background their responses were analysed separately using SPSS.

4.2.5.1 Background Information of Professionals' Respondents.

All of the 18 participants (100%) who provided an answer are from the United Kingdom. Most of the participants are working at schools (77.8%), while 11.1% worked in the health sector, an arts setting or other settings such as ASD specialist SALT (5.6%). 22.2% of respondents had job titles including therapist, ASD Resource manager, associate head teacher (SEN), autism support worker and integrative arts psychotherapist. 16.7% of respondents were special education teachers and teaching assistants, 11.1% were ABA specialists and 5.6% were arts teachers and Special Educational Needs

Coordinators (SENCO) (see figure appendix O). All participants (100%) worked with children on the autism spectrum.

Figure 4.1 Area of expertise

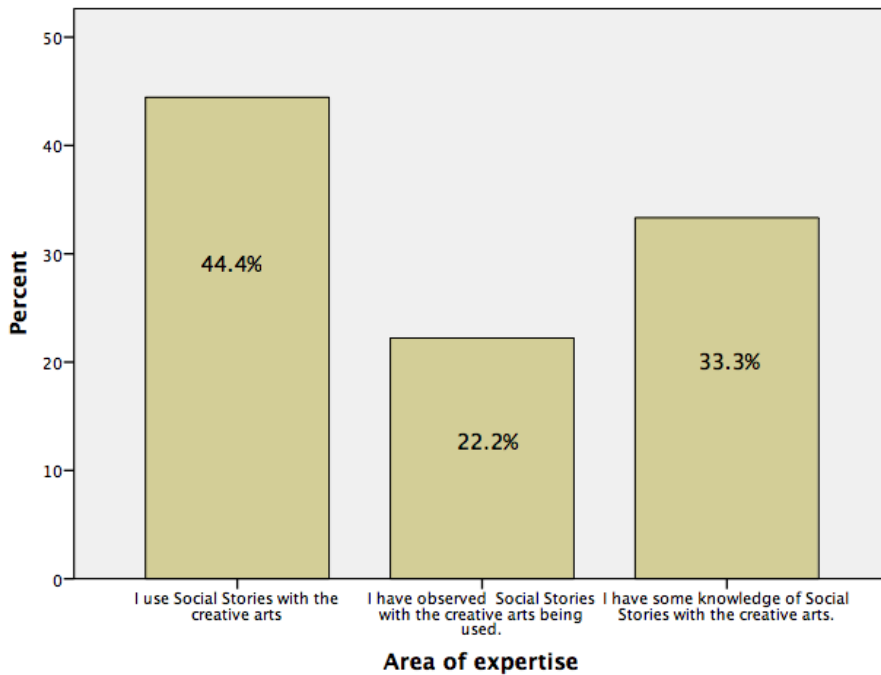


Figure 4.1 shows that 44.4% of participants have actual experience of using Social Stories with the creative arts, while 22.2% of participants did not use Social Stories with the creative art themselves, but had observed them being used. 33.3% of participants had some knowledge of using Social Stories with the creative arts but neither directly used it nor observed it. Most of the participants (72.2%) had between 1- and 5-years' work experience. 22.2% had 6-10 years, and only 5.6% had more than 10 years.

4.2.5.2 Q4.1 What Type of The Creative Arts Do You Use With Social Stories?

Participants used different types of the creative arts with Social Stories. 41.7% used visual arts, 19.4% used other methods including sand play (16.7%), cooking, pictures and role-play (see table appendix P).

4.2.5.3 Q4.2 What Is The Intended Impact of Using Social Stories With The Creative Arts?

Table 4.5 The intended impact of using Social Stories with the creative arts

The intended impact of using Social Stories with the creative arts	Responses Percent (%)
Teach social skills	17.9%
Introduce changes/new routines	13.1%
Increase appropriate behaviour	10.7%
Reduce inappropriate behaviour	11.9%
Teach academic skills	8.3%
Increase creativity	8.3%
To teach personal hygiene	11.9%
To teach how to deal with emotions	15.5%
Other	2.4%

Table (4.5) shows that participants use Social Stories with the creative arts for a variety of reasons. Most used it to teach social skills (17.9%), to teach how to deal with emotions (15.5%) and to introduce changes or new routines (13.1%). However, a small number of participants (2.4%) used Social Stories with the creative arts to build understanding and expectations to reduce anxiety, increase confidence and to communicate.

4.2.5.4 Q4.3 What Are The Purposes of Using The Creative Arts With Social Stories?

Table 4.6 The purposes of using the creative arts with Social Stories

Why use the creative arts with Social Stories?	Responses Percent (%)
Because individuals on the autism spectrum enjoy and prefer using the creative arts compared with other strategies	7.5%
To increase ownership of a Social Story	13.2%
To explain a scene from a Social Story that is not understood	18.9%
To encourage the repetition of a Social Story	11.3%
To help individuals remember a Social Story's content	17.0%
To encourage awareness of their own behaviour	11.3%
To practice social interaction in a safe and less socially challenging environment	13.2%
Other	7.5%

In table (4.6) participants gave a variety of reasons for using the creative arts with Social Stories. The largest single percentage of participants used the creative arts to explain a scene from a Social Story that was not understood (18.9%), to help children on the autism spectrum remember the contents of a Social Story (17.0%), to increase the ownership of a Social Story for children on the autism spectrum (13.2%) and to practice social interaction in a safe and less socially challenging environment (13.2%).

However, a small number of participants (7.5%) used the creative arts with Social Stories because children on the autism spectrum enjoyed and preferred using the creative arts compared with other strategies, the creative arts supports relational play (which is considered important for children on the spectrum), to gain and retain children engagement and to recap a scene to

make sure it has been fully understood.

4.2.5.5 Q4.4 When Do You Use The Creative Arts With Social Stories?

The largest proportion of participants used the creative arts during Social Stories (46.2%), while some used them before and/or after the Story itself (23.1%) (see table appendix P).

4.2.5.6 Q4.5 How Do You Use The Creative Arts With Social Stories?

Table 4.7 How the creative arts are used with Social Stories

How the creative arts are used with Social Stories	Responses Percent (%)
To emphasise the entire Social Story	10.0%
To emphasise some scenes from Social Stories	11.7%
To role-play the whole Social Story	15.0%
To role-play some scenes from Social Stories	15.0%
To produce games and improvisation	10.0%
To sing the Social Stories	8.3%
To improvise elements from Social Stories	6.7%
As background music	3.3%
By changing the lyrics of a well-known song to reflect some parts of the Social Stories content	8.3%
To use dance movement to depict entire Social Stories	3.3%
To use dance movement to depict some scenes from Social Stories	5.0%
Other	3.3%

Table (4.7) shows that participants used the creative arts with Social Stories in different ways. Many participants used role-play to model the whole Social Stories or to role-play some scenes from Social Stories (15.0%), to emphasise some scenes from Social Stories (11.7%), or to emphasise the entire Social Story and to produce games and improvisation (10.0%). However, a few participants (3.3%) used background music or dance to depict entire Social Stories, while some mentioned using graphics and characters from popular children's programmes.

4.2.5.7 Q4.6 Who Delivers, Produces or Models The Social Stories When Using The Creative Arts?

42.9% of participants indicated that the teacher delivered, produced and modelled the Social Stories in conjunction with the creative arts. Some participants (28.6%) responded that other people helped them, including art therapists or anyone with knowledge of Social Stories and creative arts skills or interest, peers and special needs support staff, teaching assistants and therapists (see table appendix P).

4.2.5.8 Q4.7 How Are Social Stories Delivered With The Creative Arts?

36.4% of respondents used puppets, and a similar percentage used methods including cartoons, pictures, singing and drawing to deliver Social Stories with the creative arts (see table appendix P).

3.2.5.9 Q4.8 Did You Notice Any Effects or Changes for Individuals on the Autism Spectrum When Using Social Stories With The Creative Arts?

The majority of the participants (77.8%) indicated that they saw effects or changes when they used the creative arts with Social Stories. The effects and changes included different approaches to confrontation, engaging in group settings, participating with actions, greater engagement, showing increased

understanding, increased interest, becoming more settled in a new school building and helping to consolidate information through pictures. However, a small number of participants (11.1%) did not notice any changes (see table appendix P).

Q4.8 (A) Were The Changes Positive? The majority of the participants (77.8%) believed that changes were positive when they used Social Stories with the creative for autistic children. However, a few participants (22.2%) stated that they did not know if the changes they had noticed were positive or negative (see table appendix P).

Q4.8 (B) Were The Changes Maintained? Half of the participants (50.0%) indicated that changes were maintained when the creative arts were used with Social Stories for children on the autism spectrum. Changes that were maintained included having no further issues with the new buildings and no desire to go back. Results sometimes indicated regression to older patterns of behaviour but in general they indicated a growing capacity and awareness of experience and behaviour such as continuing to draw and finding the route for different strategies on a "map". Slightly fewer than half of the participants (44.4%) did not know if the changes were maintained (see table appendix P).

Q4.8 (C) If Yes, for How Long Were The Changes Maintained? Some participants (22.2%) stated that changes were maintained for 1-3 months or for more than 9 months (see table appendix P).

Q4.8 (D) Were The Changes Generalised? Two thirds of the participants (66.7%) indicated that they did not know if the changes were generalised. Only a few participants (22.2%) stated that they noticed that children with autism were able to generalise the intended changes. Examples included that of a child who was able to adapt his/her approach to some different contexts. Another child was happy to move to different classrooms (see table appendix P).

4.2.5.10 Q4.9 How Do You View The Effect of Using Social Stories With The Creative Arts?

Half of the participants (50.0%) viewed the use of Social Stories with the creative arts as somewhat effective, while 38.9% viewed it as being very effective. Overall, 88.9% of respondents agreed that using the creative arts with Social Stories was an effective strategy (see table appendix P).

4.2.5.11 Q4.10 Did You Experience Any Difficulties When Using Social Stories With The Creative Arts?

Most participants (61.1%) did not experience any difficulties when they used Social Stories with the creative arts for children on the autism spectrum. However, some participants (27.8%) stated that they did experience some difficulties. Examples of difficulties included the fact that some children did not like the Story emotionally, sometimes they had no motivation for Social Stories or the creative arts because they were engaged in other activities or using other items, and sometimes they became overstimulated (see table appendix P).

4.3 Phase Two: Qualitative Results

As well as using quantitative methods, the study also used a variety of qualitative methods, including focus group interviews, individual interviews, diaries and diary-based individual interviews to explore the research questions in more depth. Thematic analysis was used to analyse the data because “a rigorous thematic approach can produce an insightful analysis that answers particular research questions” (Braun and Clarke, 2006, p.97). As discussed in the methodology chapter, Braun and Clarke’s (2006; 2012) six-stage thematic analysis was used to analyse the interview transcriptions and written diaries. The first stage covered the transcription of verbal data, while the second stage involved creating initial codes. The data were categorised and coded deductively using the proposed theories, which were social learning theory and multiple intelligences theory. Deductive coding was then

used to discover whether or not the subjects participants discussed were similar to or different from the theoretical framework. The data were then analysed and coded inductively using a data-driven process. This inductive coding was used in order to find out whether there are any other areas that participants experienced that could be used to expand on the subjects mentioned in the theories.

The third stage comprised searching for themes by grouping similar codes together and then categorising them under themes and subthemes. In the fourth stage, the themes were validated in a two-stage process. In the first stage, codes and extracts within all the themes were reread and some codes were modified and linked to other themes. In the second stage, all themes were reviewed to make sure that all data sets related to each other. As a result, some themes were combined, while others were separated to form a new theme. The fifth stage covered the meaning of the themes, and its purpose was to ensure that they reflect the information held within each theme. This stage also involved choosing extracts that represented the story of each theme. The final stage aimed to use the analysed data to form an argument that would answer the research questions (ibid).

During the analysis and the writing up of the project, I moved between the above-mentioned six stages until I felt that the data had been analysed as effectively as possible to answer the research questions in the most effective way. After the qualitative data analysis had been completed, my research supervisor checked the codes and themes for the diary, focus groups and individual interviews as well as the interpretation of their findings.

This section presents those findings to shed further light on the four research questions. The answers for the first, second and third questions were obtained from focus groups and individual interviews. The fourth question was answered using data from diaries and diary-based individual interviews. Table 4.8 summarizes the terms I used when presenting and citing the data from the qualitative methods.

Table 4.8 Introducing and citing qualitative data

Method	In text	In text citation
Focus group interview	Focus group	FGin#1
Individual interview	Interviewee	INin#Participant-1
Diary	Participant	DI-1#Participant-1
Diary-based Individual interview	Participant/Interviewee	Dlin-1#Participant-1

The qualitative data is presented in two stages. The first stage concerns orientation and offers a clear overview of the link between theory and data. This is done using a table to present only the data that is theory driven, based on the theoretical framework outlined in Chapter 2. This approach is similar to that taken by Horsburgh and Ippolito (2018). The table shows the themes and subthemes that emerged from the data analysis connected with illustrative quotes whose meanings can be understood in connection with the theoretical framework. The reason for using this style is to make the relationship between data and theory clearer for the reader, because Question 1 related primarily to social learning theory and Question 2 to multiple intelligences theory before the two theories were integrated in Questions 3 and 4. The second stage involves presenting all the data, comprising data obtained from theory driven and data driven analysis. This is to provide a richer description of all the data collected. These two-stages procedures were carried out for each of the research questions.

4.3.1 Q.1 What Are Professionals' Perspectives on The Nature of Using Social Stories for Individuals on The Autism Spectrum?

This study aims to explore the ways in which professionals' views and practices reflect Bandura's observational learning four stages: attention, retention, reproduction and motivation. Table (4.9) presents themes and subthemes that emerged from the analysis of the qualitative data, providing example quotes and then connecting them with Bandura's categories. In the table, column three presents' illustrative quotes linked with Bandura's categories, while column four presents example quotes that shows the relationship between Bandura's categories.

Table 4.9 Themes and example quotes from interviews on the nature of Social Stories

Themes	Subthemes	Bandura's categories and example quotes	Relationship between Bandura's categories and example quotes
Planning Social Stories	The use of images	<p><i>Attention:</i> "I put his head onto superhero's bodies and he would be reading it ...that kind...of engaged him through the use of visuals (INin#Participant-4)".</p> <p><i>Retention:</i> "Help them to realise... that it is for them to kind of take in and understand" (INin#Participant-7).</p> <p><i>Motivation:</i> "They are motivated by seeing their faces (INin#Participant-5)".</p>	—
	Motivation	<p><i>Motivation:</i> Social Stories with a tactile input, using different textures for one boy: "it was a motivation for him to turn to see what the next page was going to be" (INin#Participant-1)".</p>	<p><i>Motivation and attention:</i> It is important to attract individuals' attention because "it is easy to kind of lose interest, especially as the Social Stories cover something you would do on an everyday basis" (FGin#2).</p> <p><i>Motivation and retention:</i> If children with autism "are motivated, it would definitely help them retain the important part of the Story" (INin#Participant-4).</p>
	Reviewing Social Stories	<p><i>Attention:</i> It "is not about delivering it once, it is about introducing the Social Story and then revisiting it again... You have not necessarily got a long time for the child to stay focused" (INin#Participant-8).</p>	<p><i>Retention and reproduction:</i> "Supports their memory and their ability to understand and practice" (INin#Participant-2).</p>

	<p><i>Attention:</i> “It is going to be so much harder for them to engage with the Story because they cannot filter out all the stuff that is going on around them” (INin#Participant-6).</p>	<p><i>Attention and retention:</i> “A lot of the pupils struggle to filter out disruption...it is hard to tell what they are concentrating on...if it is a noise they do not like they might then have negative memories of the Story...more distractions are just not going to help understanding” (FGin#2).</p>
<p>Delivering</p>	<p><i>Attention:</i> “When things were reasonably calm for that child...when you can both focus and share the Story...in a good emotional state where you can read and concentrate” (INin#Participant-1).</p>	<p>—</p>
	<p><i>Attention:</i> “If you had two or three children who needed to have very similar information...to kind of capture their attention and engage them more” (INin#Participant-1).</p>	<p>—</p>
	<p><i>Attention:</i> Considering “levels of engagement [in terms of the] amount of time that a child could sustain and engaging in something that was quite sedentary” (INin#Participant-3).</p>	<p>—</p>
	<p><i>Attention:</i> “Because with some children concentrating can be quite short, and it might be something that they find difficult to sustain if we are expecting them to sit and read” (INin#Participant-3).</p>	<p><i>Attention and retention:</i> “If they are going to get the message that you are trying to get across they need to be focusing on it, otherwise they are not taking it in” (FGin#1).</p>
<p>Using Social Stories with other strategies</p>	<p>—</p>	<p><i>Attention and motivation:</i> “Visuals of the bus...give them a motivator on the bus to help them relax and maybe some ear defenders...a high five because you are sort of encouraging their interaction as well” (INin#Participant-4).</p>

Evaluating

Retention: Writing formal feedback “on my own plans...at the end of a session...about what their responses were or what their understanding seemed to be and what their reaction to the Story was” (INin#Participant-1).

Reproduction: “If the issue...was a daily activity...there would be more formal assessment of whether the Social Story was having an impact...” (INin#Participant-3).

Understanding

Retention and reproduction: “They would have to understand the Story if we were hoping for it to have an impact” (INin#Participant-3).

Remembering

Retention: “If it is someone who is more sensory they do not need to necessarily remember...specific things that happen, but [rather] the general message of what is happening” (FGin#2).

Retention, motivation and reproduction: The boy “retained that Story...in a much greater way and from having Spider-man in the Story...he gently referred back to the Story afterwards” (INin#Participant-3).

Social Stories and the complexity of change

Reproduction: “If we want to change our behaviour or change our understanding it takes time...that kind of thinking looks at how often they might encounter an idea or an experience...before it is actually taken in” (FGin#1)”.
—

The effectiveness of using Social Stories

Retention: “Maybe they did not retain the information...it was not repeated often enough...pitched at the wrong level...maybe there was too much language, maybe the visuals did not work” (INin#Participant-4).

Motivation or retention: “The writing and the wording ...he was not motivated, or [the Story] was not motivating enough to ingrain it in...was not maybe meaningful enough...because I did not know how to do it” (INin#Participant-7).

In the following section, professionals' perspectives can be categorised under four general themes: definition, planning, delivery and evaluation. These themes and their subthemes are taken from the analysis of focus groups and individual interviews. However, data are presented from diary-based individual interviews only under the subtheme of concentration because the data were relevant to answering this specific research question.

4.3.1.1 Definition of Social Stories. There were parallels and differences between the way focus groups (1) and (2) and one interviewee defined Social Stories. For example, both groups saw Social Stories as an explanation tool “to explain a situation or a change to a child” (FGin#2). Additionally, both groups understood that Social Stories represented a way of communicating something to children with autism “on their level of understanding of a situation” (FGin#2).

Other definitions were also identified. Focus group (1) for example viewed the nature of Social Stories as “a child-friendly Story... a personal Story” (FGin#1). Focus group (1) also concluded that Social Stories are “told from the perspective of a child with autism” (FGin#1) and they “provide concrete and explicit information which maybe needs to be a bit more detailed for a child with autism” (FGin#1). While focus group (1) mentioned that Social Stories “use visuals” (FGin#1), focus group (2) stated that the Stories consist of “a mixture of text and pictures” (FGin#2). One interviewee indicated that Social Stories help children “to predict things that are going to happen and to manage their emotions” (INin#Participant-5).

4.3.1.2 Planning Social Stories. The planning and design of Social Stories was a theme that was given a great amount of attention. Practical elements were identified as being important by participants, although different emphases were placed upon those areas. For example, one interviewee believed that professionals needed to be aware when they write Social Stories that the rationale behind “it is not about changing behaviour, it is very much about changing understanding, and the outcome of that is that behaviour will

change” (INin#Participant-3). Both focus groups and some interviewees would use Social Stories with children on the autism spectrum “to prepare them for changes...in their timetable” (INin#Participant-4).

Although one interviewee talked about using prepared Social Stories because “it might take a little bit of time to know exactly how to do it properly...” he/she would adapt the text or even many of the sentences (INin#Participant-2). Another interviewee believed that parents could benefit from using prepared Social Stories in emergency situations. However, one interviewee disagreed with the idea of using prepared Social Stories because they needed to be personalised to make them more effective.

A number of interviewees talked about designing Social Stories for different purposes. Some interviewees wanted to make Social Stories “very much for the individual” (INin#Participant-3). One interviewee gave an example of how to individualize Social Stories by using “the exact language of the level of the pupil” (INin#Participant-2). One interviewee believed that creating individualised Social Stories “can make them more applicable to the children...more engaging for them so more likely that they will attend” (INin#Participant-5). Another interviewee cited other reasons, such as not knowing where to find ready-written Social Stories, and that being familiar with children interests would make it easier to design one. Another interviewee talked about starting to design Social Stories when he/she “felt more confident in creating” them (INin#Participant-2).

4.3.1.2.1 The Focus of Social Stories. Social Stories need to have a singular focus according to focus group (2)—for example, “do we want that young person to understand or explore?” (FGin#2). One interviewee talked about the need to be clear about “what it is that I want to achieve by sharing the Social Story” (INin#Participant-5). Focus group (1) and one interviewee talked about using Social Stories that not only focus on challenging situations but “focus on the positives as well” (FGin#1). The interviewee also believed that having Social Stories that only focus on difficult situations made “a child went right off them after he had a few

because I think...he was getting them when he could not do things right (INin#Participant-3)".

4.3.1.2.2 Collecting Background Information for Social Stories.

As mentioned by focus group (1), Information about autistic children can be gathered from different people, including professionals or family members like parents and siblings. One interviewee talked about the issues involved in gathering information, arguing that "there is a need to actually talk to the child because...what the parent thinks is a problem may not actually turn out to be a problem" (INin#Participant-8). However, the interviewee pointed out that "it is not always possible or appropriate to speak to the child" (INin#Participant-8). The interviewee also talked about how gathering information can help professionals to avoid the misinterpretation of people who ask for a Social Story with an incorrect focus. He/she gave an example about writing a Story about stealing, saying, "It is once you start to have conversation with the staff and parents...you realise that...it needs to be as simple as [making the] right choice or [the] wrong choice" (INin#Participant-8).

Two interviewees discussed the need "to look at the whole social situation to identify where the need is" (INin#Participant-8). One of the interviewees discussed an example about a boy who "found going out very difficult...he became frightened of statues...because those people in Covent Garden who...start moving have made him frightened of all statues" (INin#Participant-3). The interviewee believed that when the reason became known, it made "using Social Stories really effective for helping him to go out" (INin#Participant-3).

4.3.1.2.3 The Process of Designing Social Stories.

Professionals work cooperatively to create Social Stories, as discussed by two interviewees. One interviewee said that the staff discuss and think about different aspects:

“What we already have for some ideas is something we might be able to edit or add to or change...look at the specific child in the situation...from their point of view...tailoring it and personalizing it...and adapting the language...how it is written...if a child really likes Superman, we might build Superman into the Story...we will think about what the child might find engaging” (INin#Participant-1).

Another interviewee talked about the involvement of a parent. If they have “identified that there is a need, then we would write a Social Story send it home to mum and dad for them to look at and then have a discussion with the parents” (INin#Participant-8).

Focus group (2) and some interviewees stated that they decide on the length of Social Stories “depending on the child’s level of understanding” (INin#Participant-8). Two interviewees considered children with autism “verbal understanding” (INin#Participant-5) when designing Social Stories. One interviewee also talked about considering “how much information they can attain visually and verbally” (INin#Participant-6). A number of interviewees mentioned that Social Stories consist of “one sentence or minimal sentences per page, with an image per page...that basically reflected the sentence” (INin#Participant-6). Another interviewee wrote “two lines of text on each page” (INin#Participant-7) whereas another interviewee talked about using “communicative print so the Social Story is written down using that format” (INin#Participant-8).

When designing Social Stories, some interviewees suggested considering different aspects of the Story. For instance, one interviewee said: “you need to make it very concise and to the point” (INin#Participant-4). Focus group (2) and one interviewee considered that it was important to make Social Stories “language positive” (INin#Participant-4). Focus group (1) talked about creating Social Stories that represented the perspectives of autistic children, including elements that would stimulate engagement and [reflect] their reading capacity. One interviewee suggested considering specific “issues that are going on for that child” (INin#Participant-3). Another interviewee believed that it was important to consider children’s ability to think flexibly and abstractly. For example, he/she said when using “a Story about football team lining up... you want to know that the child will understand the Story and make the connection

between the football team lining up and then lining up in its own classroom” (INin#Participant-1).

One interviewee argued that another aspect to consider is the sensory needs and preferences of children with autism when designing Social Stories. “If a child loves visual things then it should be very visual...if a child preferred less colour there should be less visual stimulation” (INin#Participant-1). Another interviewee talked about different ways to meet children’s sensory needs by pointing out that “if they have a sensory fidget toy they would be able to play with it when the lights are dimmed” (INin#Participant-8). However, some interviewees mentioned that when using Social Stories with children, they “do not really take into consideration their sensory needs” (INin#Participant-5). One interviewee admitted “I am not very skilled at this” (INin#Participant-3) and another said, “at the moment I think getting them to focus is probably the most difficult part” (INin#Participant-4).

4.3.1.2.4 The Use of Images With Social Stories. This theme was covered in variety of ways by interviewees. For example, one interviewee talked about considering children with autism interests by “using pictures of characters they like from cartoons” (INin#Participant-7) in their Social Stories. Another interviewee would use pictures from the Internet, while two more interviewees talked about “actually taking a photograph” (INin#Participant-4). One interviewee stated that the guidelines he/she adapted when using pictures with Social Stories would be to “individualize it to the particular pupil and use their own pictures... but if it is a general one use more general pictures” (INin#Participant-7). Another interviewee talked about why individualised pictures need to be used, saying “If those Stories were going home...it also safeguards [the children]” (INin#Participant-2).

A number of interviewees offered different reasons for using pictures with Social Stories. For example, focus group (1) and one interviewee talked about getting autistic children to become familiar with a new environment and making them “ready to go to this place and dropping their levels of anxiety” (FGin#1). The interviewee gave an example saying, “a parent...did the trip

like a week before...and she photographed [the setting]... so the child could see what was going to happen...[which] really enabled the child to manage the situation" (INin#Participant-3). The interviewee also mentioned that children with autism "can use the visual [sense] to interpret the language that is used in the Story" (INin#Participant-3). Another interviewee cited reasons to do with "feeling comfortable in a space...with different people, or to think about what different people's roles might be" (Dlin-3#Participant-2). One interviewee also stated that he/she would use pictures with "the ones that cannot read in their Social Story" (INin#Participant-4). Another referred to the idea of using "a big picture that kind of encapsulates what that slide is about" (INin#Participant-5) while another talked about using a picture of a trampoline as a background for a Social Story, which made a child with autism "visually excited by it" (INin#Participant-6).

Several interviewees talked about the practice of superimposing children with autism faces onto figures. The interviewees explained the way they did this for instance, "for two children who were distracting each other lots...there was a symbol for friendship...that I superimposed both of their faces onto" (INin#Participant-5). A number of interviewees mentioned different reasons for this practice. Some would superimpose children faces as a way of engaging them with Social Stories, especially two interviewees who stressed motivation. Two interviewees argued that superimposing faces could help children to "realise... that it is for them to kind of take in and understand" (INin#Participant-7).

One interviewee also linked superimposing faces with involvement, as it can show that a child "is actually...jumping on the trampoline...like he is an active character" in the Story (INin#Participant-6). The interviewee also gave another reason for superimposing faces, which was connected to the lack of some children abilities to read, as well as problems with verbal communication. Using pictures meant that, "If it is not his face then...it is not as easy to understand the Story...it is not as concrete to them because it is someone else's experience" (INin#Participant-6).

4.3.1.2.5 Motivation. One of the themes influencing motivation is the personal preference as Focus group (2) stated that considering autistic children “specific interest also helps with Social Stories” (FGin#2). Focus groups (1) and (2) both address the reasons why it is important to consider the motivation of children with autism to participate when using Social Stories. Focus group (1) gave a reason that related to the nature of social situations saying that “changes are hard to cope with” (FGin#1). Focus group (2) pointed out that it is important to attract children attention because “it is easy to kind of lose interest, especially as the Social Stories are something you would do on an everyday basis” (FGin#2).

Some interviewees suggested that we should find out “what motivates” (INin#Participant-4) children with autism. According to one interviewee, this can be achieved by talking to different people, including staff, parents and the children themselves. He/she would also consider the level of motivation based on the topics of Social Stories by asking “what level of motivation is needed [and] what the Story is about” (INin#Participant-1). A number of interviewees discussed different techniques for motivating autistic children when using Social Stories. For example, one interviewee talked about Social Stories with a tactile input, using different textures for one boy, saying “it was a motivation for him to turn to see what the next page was going to be” (INin#Participant-1)”. Another interviewee used a reward system with Social Stories as a motivator, believing that it helped individuals “to sit down and focus for longer periods...they are probably more motivated to engage in it” (INin#Participant-4). One interviewee discussed other techniques such as using music and involving children in creating their own Stories. He/she gave an example about a boy who, “likes being on a computer...[encouraging him to] go on the Internet and find the photos to put in the Social Story” (INin#Participant-2).

Another interviewee talked about motivating children using different approaches, such as “trying to make my voice engaging and exciting and I will try and seem excited and animated myself...I would say you know good sitting or well done for reading a Story” (INin#Participant-5). Some interviewees mentioned using pictures of cartoon characters, objects or people to motivate children with autism. For example, one interviewee stated

that using a superhero character with a Social Story helped motivate children “to carry on reading and showing it to other people” (INin# Participant-3). Another interviewee gave an example of using a picture of a swimming pool as a background for a Social Story with a boy who does not like the bus. He/she believed that this encouraged him “to get on the bus because he knows he is going to get into this pool that he can see” (INin#Participant-6). The interviewee also talked about using photographs of children as motivation, because they enjoy seeing themselves and also “seeing pictures of themselves smiling” (INin#Participant-6).

A number of interviewees talked about the relationship between motivation and other factors. Some interviewees linked motivation with retention, pointing out that if autistic children “are motivated, this would definitely help them retain the important part of the Story” (INin#Participant-4). One interviewee also referred to the relationship between location, motivation and engagement saying, “if the child is feeling safe and comfortable and motivated by where they are, they are more likely to want to read the Story and be interested in it” (INin#Participant-2). Another interviewee indicated motivation, engagement and attention as factors that could lead children with autism to understand and remember Social Stories. He/she believed that:

“If they are motivated and engaged, they are more likely to remember it because they are more likely to have paid attention...they are more likely to have taken in the messages and perhaps to be able to kind of recite those messages back to themselves” (INin#Participant-5).

The interviewee talked about interrelated factors that would support remembering the Stories.

4.3.1.2.6 Reviewing Social Stories. One interviewee argued that the person telling the Story is responsible for how many times Social Stories are used. Focus group (1) expressed their views about the idea of reviewing Social Stories more than once, stating that “repetition is a good thing... as long as it is not boring” (FGin#1). Focus group (2) indicated that the repeated

use of Social Stories with children is useful “because the first time they may have just taken in the new pictures, [but] the second time they might take in the text or speech that goes with it” (FGin#2). Another reason given by one interviewee was that he/she “wanted the child to become very familiar with the content...because lots of our children find change and novelty hard to cope with” (INin#Participant-1). The interviewee would also use Social Stories more frequently “for some children during their first week or two...we might keep referring to the Story every day and then a few times a week...but...it would still be something that they revised [regularly]” (INin#Participant-1).

One interviewee talked about reviewing Social Stories and concentration spans saying, it “is not about delivering it once, it is about introducing the Social Story and then revisiting it again...you have not necessarily got a long time for the child to stay focused” (INin#Participant-8). Another interviewee believed that rereading Social Stories with children is beneficial because it “supports their memory and their ability to understand and practice” (INin#Participant-2). Two interviewees mentioned that deciding on how many times Social Stories are used “depends on the child [and] depends on the Story” (INin#Participant-5). However, another interviewee linked how many times Social Stories are reviewed with age for example, “for older pupils, maybe you have to reduce the frequency...reading it every day might not be the best” (INin#Participant-2).

A number of interviewees showed variations on how many times they read Social Stories for autistic children. For instance, some interviewees would read Social Stories every day and others twice a day or weekly. This variation, as several interviewees mentioned, is to do with the nature of the behaviour or activity, like “the trampoline was a daily thing that would happen every playtime” (INin#Participant-6).

4.3.1.2.7 Location and Distraction. The way location is considered by two interviewees was to make “sure it is distraction free” (INin#Participant-7). However, one interviewee did not consider a specific location and “just thought about them being read in the classroom” (INin#Participant-3). Another

referred to the idea of putting Social Stories in a place such as “the library, so that the child goes and picks them...like picking out a book” (INin#Participant-3). One interviewee highlighted why it is important to consider where to deliver Social Stories, saying:

“In the example of the swimming pool...if you show the child at home, they find it difficult to relate that Story to how they are going to [get to] the swimming pool, and that only once they are in the swimming pool surroundings that the Story suddenly becomes more relevant to them (INin#Participant-8)”.

The interviewee believed that using a location that does not support the content of the Social Story could make it difficult for children with autism to understand the Stories.

Some interviewees mentioned different reasons for using Social Stories in a quiet place. For example, focus group (2) talked about a relationship between location and understanding. They said, “reading Story in a quiet place, they can at least absorb it without any distractions” (FGin#2). Another reason one interviewee cited was: If we are dealing with “a child who is very sensitive to noise” (INin#Participant-5). One interviewee would also use Social Stories in a quiet room “if it was the first few times reading it” (INin#Participant-6). Another referred to the negative effect of busy spaces on children with autism like “it is going to be so much harder for them to engage with the Story because they cannot filter out all the stuff that is going on around them” (INin#Participant-6).

Two interviewees talked about the relationship between distraction and concentration saying that: “reducing distraction from the Story improves focus” (INin#Participant-1). Focus group (2) mentioned the negative effects of distraction on concentration, memories and understanding Social Stories. They said:

“A lot of the pupils struggle to filter out disruption...it is hard to tell what they are concentrating on...if it is a noise they do not like they might then have negative memories of the Story...more distractions are just not going to help understanding” (FGin#2).

A number of interviewees talked about using different techniques to deal with distraction when Social Stories were being used. For example, one interviewee talked about how to redirect a child with autism attention to “the Story with textile patches on the pages...we might cover with our hands and direct his/her attention to the page and then take our hand off” (INin#Participant-1). Another interviewee argued that depending on the nature of the disruption, he/she would take children with autism “to a different space where there are fewer distractions or read [the Story] at another time” (INin#Participant-5). One interviewee would use another approach with children that would “kind of verbally redirect them to listen and to look at visuals” (INin#Participant-7).

4.3.1.2.8 Timing and Implementation of Social Stories. This theme covered areas to do with when Social Stories should be used. For example, focus group (1) and one interviewee talked about considering a suitable time to use Social Stories. Focus group (1) referred to specific situations, such as: “if [the child] is bouncing on a ball...then maybe that is what works for that child” (FGin#1). One interviewee talked about deciding on a time “when things were reasonably calm for that child...when you can both focus and share the Story...in a good emotional state where you can read and concentrate” (INin#Participant-1).

A number of interviewees talked about using Social Stories “immediately before the thing is happening” (INin#Participant-6). Two interviewees would use Stories “at the beginning of the day (INin#Participant-1)” whereas one of them also would use it “at the end of the day” (INin#Participant-1). Another interviewee said that Social Stories might be used the day before a specific event was planned.

4.3.1.3 Delivering Social Stories. Different modes of presentation were discussed by a number of interviewees. For instance, out of the eight interviewees used hard copy Social Stories, four used whiteboards and/or PowerPoint presentations and three used varied methods. Two interviewees

talked about physical engagement as a reason for using Social Stories on paper with autistic children, saying: “some of them do like to have the hard copy version so [they can] flick through it like a book as well” (INin#Participant-5).

Some interviewees described different motives for using the whiteboard to present Social Stories. For example, one interviewee mentioned that when Social Stories are delivered “for the whole class, then I put it on the whiteboard” (INin#Participant-7). Another interviewee’s reasons were related to targeting a child within a group setting and making sure they are familiar with the presentation method. One interviewee also referred to reasons to do with delivering parallel information for delivering Stories in a group setting, such as ensuring engagement and attention, saying “if you had two or three children who needed to have very similar information...to kind of capture their attention and engage them more” (INin#Participant-1).

Many interviewees delivered Social Stories in a variety of ways. For example, two interviewees mentioned that a child with autism and an instructor could “read it together” (INin#Participant-3). Two interviewees also stated that Social Stories are “read to the child or the child reads it” (INin#Participant-7). Two more interviewees talked about who should deliver Social Stories. Saying they were better coming from “trusted people and people that the young person [already] has a relationship with” (INin#Participant-3). Some interviewees connected learning at school with home by sharing Social Stories with families, saying: “usually we would send [copies of the Stories] home to parents [and] we would have copies in the room available for the child to read (INin#Particpnat-1)”.

While two interviewees talked about using Social Stories with individual children, they also used them “directly with groups of children” (INin#Participant-1). Some interviewees said why they used Social Stories with the whole class. For example, focus group (1) referred to reasons to do with having role models to support children with autism. Focus group (1) and one interviewee also used Social Stories “if...they were relevant for the whole class” (FGin#1). Another interviewee believed that using Social Stories for the

whole class could be a valuable way of making sure “that the child does not feel that they are singled out” (INin#Participant-3). However, one interviewee referred to the difficulty of using Social Stories with the whole class because “you get different levels of engagement” (INin#Participant-6).

4.3.1.3.1 Engagement. When using Social Stories with children, one interviewee mentioned that it is important to know “what will engage them” (INin#Participant-5). Another interviewee talked about considering “levels of engagement [in terms of the] amount of time that a child could sustain and engaging in something that was quite sedentary” (INin#Participant-3). The interviewee also believed that “sometimes engagement [for children] with autism is not done in the same way as maybe for a neurotypical child” (INin#Participant-3). Another interviewee referred to signs of engagement like “if you are looking more or less at the Story or at least sitting there and observing and not trying to do anything else” and signs of not engaging like “If I am reading a Story and they are trying to get something else” (INin#Participant-6).

Two interviewees said they used different techniques to engage autistic children with Social Stories. One interviewee talked about the use of objects with Social Stories for a girl, and their implication. He/she said that “we had a reflective sticker sheet she used to personalize her own book... that was her way of engaging with the book, but it didn’t mean that she engaged with the content a lot more” (INin#Participant-1). Another interviewee suggested considering the environment, people, objects and children’s level of interest to increase engagement, factors which included, “making sure there is no distraction...having someone familiar with them...audible motivators, some sort of sweets... writing a Social Story within the outline of an airplane in order to engage a child” (INin#Participant-8).

4.3.1.3.2 Attention and Concentration. The difference between attention and concentration was reported by one interviewee. He/she

discussed their relationship to mark making and participatory artwork combined with Social Stories, saying

“Concentration is...detailed attention which is very clear. You are focusing on something and so if I was reading a Social Story with a child...they would be looking at what I am reading...following every mark I made if I am using the arts...mirroring some of what I do when I am enacting...sharing the experience of the Social Story. [In terms of] attention, a child might be doing something else while still paying attention to the Story and it might be less [obvious] to me that they are paying attention” (Dlin#Participant-2).

The interviewee argued that sometimes people do not know if children with autism are paying attention because “they do not show it in the way that another child might...some of them can be less communicative or...might ask less questions” (Dlin#Participant-2). Focus groups (1) and (2) and the interviewee also talked about the implications of not knowing if autistic children are paying attention for example,

“The parent...or the therapist or teacher is not getting the feedback that they have taken it in and...might only realise...when one day they open the Social Story and the child knows all of the words and is reciting them themselves” (Dlin#Participant-2).

A number of interviewees showed different perspectives on the need to concentrate when using Social Stories. For example, interviewees in both focus groups argued that “you need to concentrate” (FGin#2) when Social Stories are used. Focus group (1) also discussed the reason for this, saying: “if they are going to get the message that you are trying to get across they need to be focusing on it, otherwise they are not taking it in” (FGin#1). However, one interviewee challenged that way of thinking, and instead highlighted the importance of paying attention. He/she argued for attention rather than concentration, saying:

“I do not think it is important for them to be...concentrating initially. I think children on the spectrum often look as if they are distracted but they are listening very carefully...so they might be looking out of the corner of their eyes while doing something else and making a noise but still be seeing...and listening to what you are doing... I think of course a child needs to be paying attention to take something in” (Dlin#Participant-2).

One interviewee talked about signs that can show if children with autism are not concentrating when using Social Stories like “if they are using a fidget toy...or if they are not looking when you are reading” (INin#Participant-8). However, focus group (1) challenged this way of thinking and talked about the importance of not assuming “that concentration and focus looks like sitting still...a child might well be processing everything [said to him/her] verbally but not looking” (FGin#1). They also gave an example of how a child with autism engaged with Social Stories and concentrated. Focus group (1) mentioned that the boy would read Stories from the PowerPoint presentation while walking around in class, and that did not prevent him from concentrating and understanding.

Two interviewees believed that when using Social Stories, concentration could be an issue “because with some children concentrating can be quite short, and it might be something that they find difficult to sustain if we are expecting them to sit and read” (INin#Participant-3). One of the interviewees elaborated further on the issue of concentration, and talked about considering the abilities of autistic children when writing Social Stories, saying:

“You have not got a long time necessarily for the child to stay focused. Most of Social Stories we use here would only perhaps be eight...lines long, and some of them can be even shorter...four lines...so the idea of concentration is about us knowing the audience and therefore [knowing] how to write a Story” (INin#Participant-8).

Focus group (1) referred to things that could be done to support concentration, such as: “meeting what other sensory needs they have before they are ready to engage...it has to be the right Story...motivating enough to actually engage someone, and then concentration hopefully will be bit easier”

(FGin#1). They also stated that using pictures of the principal character “to tell the Story...can help the child focus, so they are getting more from that Story” (FGin#1). One interviewee stressed that personal preference for songs and their use with Social Stories can be a way of supporting concentration, saying: “the most effective [song] at that time was *The Wheels on the Bus*” (INin#Participant-2).

4.3.1.3.3 Using Social Stories With Other Strategies. Focus group (1) and one interviewee argued that Social Stories are “most effective when used with a number of other strategies” (FGin#1). Two interviewees argued that developing behaviour is a more complex process, and the role of the Social Story is to provide information. He/she argued that:

“It is not the case that you write a Social Story that tells the child what to do. They read it and then they just change their behaviour...I find Social Stories fit in as one strategy to give the child social information that might be missing rather than it being the answer to just changing things” (INin#Participant-1).

A number of interviewees mentioned that different strategies are used with Social Stories. For example, one interviewee stated that for a Social Story about lining up in the classroom, he/she maybe use:

“Four or five other things that may be part of a whole approach to supporting a child to change their behaviour...a kind of visual system or a chart...plus some adult support to kind of help them with those steps at the crucial moment when it comes to lining up” (INin#Participant-1).

Another interviewee would use Social Stories on the bus with things like “visuals of the bus...give them a motivator on the bus to help them relax and maybe some ear defenders...a high five because you are sort of encouraging their interaction as well” (INin#Participant-4). Some interviewees talked about using different types of the creative arts with Social Stories. For instance, one

interviewee talked about using music, while focus group (2) and two other interviewees cited drawing and another two interviewees cited drama.

4.3.1.4 Evaluating Social Stories. Feedback can be gathered from school and home, as mentioned by one interviewee: “from the professionals that are working with that child [and] the family members” (INin#Participant-8). Four out of the eight interviewees talked about formal assessments and Social Stories. One interviewee mentioned writing formal feedback “on my own plans...at the end of a session...about what their responses were or what their understanding seemed to be and what their reaction to the Story was” (INin#Participant-1). Another interviewee would use formal assessment in particular situations:

“If the issue...was a daily activity...there would be more formal assessment of whether the Social Story was having an impact...when there are targets written in annual reviews and planning meetings, those targets are evaluated with staff and parents and the child sometimes” (INin#Participant-3).

The interviewee stated that using different formal methods such as “measurement videoing is used sometimes in schools...[and] to do little ticks [to monitor progress]” (INin#Participant-3). Another interviewee talked about formally assessing a child with autism because “he would have such major behaviour problems that I needed to make sure notes had been taken and...I get in touch with the clinical psychologist and staff” (INin#Participant-6). One interviewee referred to an online system called Behaviour Watch that provides information about the behaviour of children with autism over a period of time. He/she believed that this system could be useful because “you might see...through November there were lots of incidents of behaviour around this particular transition then we started sharing this Social Story every day with them and it was reduced through December and January” (INin#Participant-5).

Out of the eight interviewees, five talked about using informal assessments. One interviewee regarded what she did as informal, saying “I use my own judgment...I do not record it anywhere” (INin#Participant-7). One interviewee mentioned that informal assessment is used “if it was something that maybe was more less concrete” (INin#Participant-3) whereas another interviewee said “if it is something that I could...I like to be able to manage it informally...I would not write things down” (INin#Participant-6). Seven interviewees viewed discussing what happened after Social Stories are used with staff members in terms of being an informal assessment.

A number of interviewees mentioned that professional discussions focus on different aspects relating to the use of Social Stories with children on the autism spectrum. For example, one interviewee said this took the form of “how we thought it was working and his responses to it, and his responses to the different teams, like the people reading Stories to him” (INin#Participant-6). Another interviewee talked about the procedure, and asked “whether the Social Story had been used appropriately, whether it had been delivered consistently, and whether there was an impact” (INin#Participant-3). One interviewee mentioned that staff would talk about “if they recognised that there had been a degree of understanding” (INin#Participant-8).

4.3.1.4.1 Understanding. The nature of understanding when using Social Stories was explained by one interviewee, who said:

“There are two sides to this. It is the simple understanding of the language. Is the language at the right level? Do they know what the words mean...? The other part is understanding what that means for them in their life” (INin#Participant-1).

Many of the interviewees talked about the importance of understanding the message of Social Stories, and linked them with developing change. For example, one interviewee saw Social Stories as essential for bringing an effective change, saying: “they would have to understand the Story if we were hoping for it to have an impact” (INin#Participant-3). Another interviewee

suggested that there was a relationship between understanding and developing social change, saying, “a change in a certain social understanding would maybe lead to a change in a social behaviour” (INin#Participant-3). Some interviewees referred to the impact of a lack of understanding, saying: “If they have not understood the kind of skills taught in the Social Story, then there is often no change” (INin#Participant-6). One of the interviewees’ reasoning for this is that children “would not be able to understand what they are supposed to do” (INin#Participant-2).

Several interviewees talked about using different approaches to find out whether children with autism can understand Social Stories. For instance, a number of interviewees looked for observable changes like “a change in the behaviour that you are targeting” (INin#Participant-4). One interviewee associated using observation with “children who are less verbal” (INin#Participant-5). Focus group (2) and some interviewees checked understanding by asking questions. They indicated that children “should be able to answer very simple questions about the Story” (INin#Participant-1). One interviewee would find out whether a child with autism understands Social Story by letting him ask the questions. He/she said that within the Story “there was a page where he could write in his questions...and he could ask me...so that helped me to see his level of understanding of the content” (INin#Participant-1). Another interviewee stated that questions were used “with my more able children, so they can communicate things verbally” (INin#Participant-5). One interviewee indicated that he/she would assess children with autism understanding “verbally by having a conversation” (INin#Participant-2).

However, a number of interviewees indicated that they did not assess autistic children understanding of Social Stories, saying, “I have never really tried to measure to see if it got any better” (INin#Participant-6). The reason for this, as one interviewee mentioned, is related to the nature of the questions and children levels of ability: “It would be quite hard to question them about concepts...sort of the cognitive ability to understand some of the questions...my pupils are still requesting” (INin#Participant-4). Another interviewee’s reason for not assessing understanding is to do with the nature

of the Social Stories themselves. He/she said it “is not really about learning academically...it is more about behaviour” (INin#Participant-5).

Several interviewees referred to different signs of understanding Social Stories. For example, some interviewees referred to engagement, saying, “If they are engaged, then I feel they possibly have more understanding” (INin#Participant-2). One interviewee talked about children being interested in a Social Story, saying that “they looked at it” (INin#Participant-2). Another interviewee mentioned becoming familiar with Social Stories content, saying “Understanding it you would expect them to be more familiar” (INin#Participant-1). One interviewee talked about the way Social Story questions are answered like “If they have giving you back the same message but using different wording then I really know that they have understood it... rather than just parroting or echoing responses” (INin#Participant-5).

However, one interviewee indicated signs of not understanding Social Stories, such as “if you see them disengaging, they are avoiding them” (INin#Participant-1). Another interviewee stated that when children answer a question using the same words from a Story: “repeating it back does not show that they understood the Story at all because it could just be a degree of echolalia” (INin#Participant-8).

4.3.1.4.2 Remembering. This theme was covered in variety of ways. A number of interviewees within focus group (2) held different views concerning remembering within the context of Social Stories. One interviewee within the group talked about the importance of remembering specific information within Social Stories, because the Stories themselves might not be there for children to access: “like a trip...what is the sequence? What is going to happen on the trip...you might not have the details with you” (FGin#2). Another interviewee from focus group (2) agreed with the importance of remembering but would consider the varying ability of autistic children as a factor in determining what they needed to remember. He/she said that high attaining students need to remember specific details within Social Stories “but if it is someone who is more sensory they do not need to necessarily remember...specific things that

happen, but [rather] the general message of what is happening” (FGin#2). However, one interviewee from focus group (2) disagreed with the need to remember, and argued that children would take Social Stories which they drew together with them, and use these pictorial Stories as a reminder, “so they are not really remembering it, but they are using it as a support and as a guide to help them with their behavior. I think that is why we use...text and visuals” (FGin#2).

Another interviewee referred to some aspects that could support remembering, such as: “if you have a Story that has very enjoyable things in it or...very engaging topics” (INin#Participant-1). Another interviewee talked about remembering experiences in general, including Social Stores and linked it with interest. The participant believed that:

“No matter their neurostatus...you just remember things that you like or you remember things you really do not like... Social Stories are the same thing...if you like it or you are just not at all motivated by it” (INin#Participant-6).

Another interviewee referred to a relationship between using interesting pictures of interest and memory. He/she gave an example of a Social Story designed with the Spider-man character to explain a voice scale to a boy in order to help him stop shouting in class. The interviewee believed that the boy “retained that Story...in a much greater way and from having Spider-man in the Story...he gently referred back to those [scale] numbers [in the Story] afterwards” (INin#Participant-3). One interviewee argued that he/she does not consider concentration and remembering to be a factor, but that memory is more linked with “how much they have engaged with [the Story]” (Dlin#Participant-2). One interviewee talked about ways to assess if children with autism remembered the message of Social Stories, such as: “If you talk about it then you can see whether...they can remember some of the details or not...like if they actually remembered the sequence of going to the toilet” (INin#Participant-2).

4.3.1.4.3 Communication. Social Stories were viewed by focus group (1) as something “to engage rather than [encouraging] verbal communication...it may be that they also shape behaviour in certain ways in some children, and that is how they communicate” (FGin#1). Focus group (1) also mentioned that for children with autism, behaviour could be a form of communication: “unexpected behaviour can be communication of I want to avoid something/I want to get out of something” (Focus group#1). One interviewee talked about the use of Social Stories to support communication, for example “to start a conversation” (INin#Participant-2). Another interviewee referred to the complexity of communicating aspects of Social Stories in relevant situations “because the child might not initiate communication that easily” (INin#Participant-1).

4.3.1.4.4 Social Stories and The Complexity of Change. The nature of change was mentioned by a number of interviewees concerning the use of Social Stories with children on the autism spectrum. One interviewee believed that “change can be quite stressful for them [in terms of] things that are new” (INin#Participant-4). Another interviewee stated that it is difficult to observe or monitor change in some situations:

“Because...some of these things are very subtle and...those subtle changes over time sometimes go unnoticed because then you are dealing with something else... There has got to be evidence that there are changes...and that is not always easy to see, or it takes a long time” (INin#Participant-3).

One interviewee believed that lack of knowledge might affect or hinder change, for example, “with the copying one...I feel like he needs more than just a Social Story because he does not know how to interact with his peers” (INin#Participant-7). Focus group (1) referred to a relationship between time and change when using Social Stories: “if we want to change our behaviour or change our understanding it takes time....that kind of thinking looks at how often they might encounter an idea or an experience...before it is actually taken in” (FGin#1).

4.3.1.4.5 The Effectiveness of Using Social Stories. When more than one method is used together, two interviewees mentioned the difficulty of knowing which method is responsible for change:

“You would not just have the Social Story, maybe you would made up visuals...you have given them a motivator on the bus to help them relax and maybe some ear defenders...a high five...but because you are using those strategies like holistically to target this behaviour it is quite hard to measure the success of one individual method” (INin#Participant-4).

One interviewee argued that Social Stories are most effective when used “with the children with better cognitive understanding” (INin#Participant-5). Another interviewee found that when Social Stories are used “with some pupils they were not successful” (INin#Participant-4). Two interviewees talked about using different approaches when Social Stories were not working, for example: “changing his routine getting on the bus so I take him to separate quiet area he likes before we got on the bus...I gave him headphones to play music he liked to get them on the bus” (INin#Participant-6).

A number of interviewees cited different reasons for why Social Stories are ineffective. For instance, one interviewee talked about issues to do with retention, time and the contents of the Story. He/she argued that “maybe they did not retain the information...it was not repeated [often] enough...pitched at the wrong level...maybe there was too much language, maybe the visuals did not work” (INin#Participant-4). Another interviewee referred to a lack of motivation, understanding and lack of staff experience in designing Social Stories. He/she stated: “the writing and the wording...he was not motivated, or [the Story] was not motivating enough to ingrain it in...was not maybe meaningful enough...because I did not know how to do it” (INin#Participant-7). One interviewee also cited reasons concerning issues “in the information collection process in the first place, that something was missed, maybe the Social Story...is about a situation that we have misunderstood” (INin#Participant-8).

4.3.1.4.6 Social Stories and Generalisation. The issue of generalisation and what to consider was highlighted by focus group (1) when designing Social Stories:

“What they read in the Story might need to be extremely factual...for particular children where they might find it hard to think abstractly and generalize, whereas for children who might be more able to...connect two things or think more abstractly then you can use a bit more creative license in the way that you write the Story” (FGin#1).

One interviewee gave an example of how to adjust Social Stories to support generalisation. He/she stated:

“If it is lining up from that book to their own life for some children, it might be that they need things to be extremely literal or they might not be able to make that connection, so it might be that you make a reference to a football team lining up at the beginning of the game but you might not make the whole Story about that” (INin#Participant-1).

The interviewee suggested that the content of Social Stories should be literal and should contain factual examples.

4.3.2 Q.2 What Are Professionals' Perspectives on The Nature of Using The Creative Arts for Individuals on The Autism Spectrum?

The study draws on Gardner's multiple intelligences theory and links it to the use of creative arts. The qualitative data reveal that the way professionals' view or use different types of creative arts could represent a way of engaging autistic children using multiple intelligences theory, as this study proposes. Table (4.10) presents themes and subthemes that emerged from the analysis of the data, illustrative quotes and then connects them with Gardner's categories.

Table 4.10 Themes and example quotes from interviews on the nature of the creative arts

Themes	Subthemes	Example quotes	Gardner categories
Benefits of using the creative arts	Remembering	Focus group (2) also talked about links between music and dance movements and retaining information, saying, “you can see children rocking sometimes...the rhythm they have got like that body memory of it” (FGin#2).	Musical and bodily-kinesthetic intelligences
		“Singing in English when we are reading a story...[means] they will get to know the words in it” (INin#Participant-6).	Musical and verbal-linguistic intelligences
	Imagination	The arts installation and developing imaginative play skills: “Became very involved in an imaginary situation...they had to...get into this room...and then somebody said you cannot get in it is locked and this boy who is very very quiet said I will get the key and he just ran off and came back with the imaginary key and...it was amazing because I had never seen him do anything like that before because he was a very very anxious child, very logical, very methodical” (INin# Participant-3).	Visual-spatial, bodily-kinesthetic and interpersonal intelligences
	Motivation	“For my less able children...it was to create a sort of collage of a bird by...requesting coloured feathers using adjectives...it helped them [to learn] because they were motivated by the activity” (INin#Participant-5).	Visual-spatial and verbal-linguistic intelligences
		“Helped a lot of the secondary pupils with their English and their language by helping them build sentences...they were more motivated if they were in the role of someone” (INin#Participant-2).	Verbal-linguistic and bodily-kinesthetic intelligences

Engagement	<p>“Those children [for whom] it is difficult to get them to respond to things...when you put them in an immersive kind of interactive environment such as an expressive art installation...they can really kind of become very aware of what is around them and show...more communication, more engagement, initiating...and moving towards things exploring them voluntarily” (INin#Participant-1).</p>	<p>Visual-spatial, bodily-kinesthetic and interpersonal intelligences</p>
Feelings	<p>“I asked them to draw themselves when they are feeling particular ways...they gave me a lot more information than they would have been able to do if they were just using words, or just talking” (INin#Participant-1).</p> <p>“This child was really benefiting and really progressing with her emotions because she was able to express them in the form of...loud beating, banging music and would come out...more settled” (INin#Participant-8).</p> <p>“Maybe some children would engage and would actually talk about their feelings through a character as opposed to them being asked how they feel directly” (INin#Participant-8).</p>	<p>Visual-spatial and intrapersonal intelligences</p> <p>Musical and intrapersonal intelligences</p> <p>Bodily-kinesthetic and interpersonal intelligences</p>
Communication	<p>“One particular child was very anxious and...was more verbal in this situation where it was a very creative environment involving dance and acting and music and lots of props” (INin#Participant-3).</p>	<p>Musical and bodily-kinesthetic intelligences</p>

Learning	Using the creative arts "...is a little bit like multisensory learning, where you are engaging lots of different systems at the same time. It is a lot more engaging...more arousing for the brain, and therefore you are going to expect learning to take place at a deeper level" (INin#Participant-1).	Musical, visual-spatial, bodily-kinesthetic intelligences
	"Using rhythm and song with...children with learning difficulties has definitely supported their language development and their expressive language" (INin#Participant-3).	Musical intelligence
	"Some pupils...have learnt to count through singing because we listen to lots of songs...it has really helped with his understanding numbers and number concepts" (INin#Participant-4).	Musical and logical-mathematical intelligences
	The use of visual art when teaching maths : "Sometimes they will request a certain number of stickers to add to a picture" (INin#Participant-5).	Logical-mathematical and visual-spatial intelligences

In the next section, professionals' perspectives on the nature of using the creative arts for children on the autism spectrum covered themes concerning definitions and reasons for using the creative arts with Social Stories. Another theme concerned the benefits of using the creative arts, and covered subthemes such as remembering, imagination, motivation, engagement, feelings, communication and learning. These themes and subthemes are taken from the analysis of focus groups and individuals' interviews.

4.3.2.1 Definition of The Creative Arts. The way the term "creative arts" is defined showed that focus groups (1) and (2) and one interviewee stated that it consists of similar and different approaches to the arts. For example, both focus groups defined the creative arts as using "anything that involves music, drama and art" (FGin#2). One interviewee also said that "dance is a good expression of the creative arts with children that have autism" (INin#Participant-1). Music, according to focus group (1) meant using songs, and for one interviewee, playing a musical instrument.

In terms of using visual arts, focus group (1) and one interviewee talked about specifically using drawing, and focus group (1) also added painting. Focus groups (1) and (2) argued that "film has now become part of the creative arts" (FGin#2) and focus group (1) also associated the arts with drama. Other examples of the creative arts indicated by focus group (2) included "using writing in a more creative way... photography" (FGin#2).

4.3.2.2 Reasons for Using The Creative Arts. Some types of creative art are used for different reasons, as one interviewee stated: "like music, you use it...for engagement in the Social Stories for relaxation...art is the same, so you would use it as a special interest like mark making" (INin#Participant-2). Music as stated by two interviewees was used to help children with transition and to make things "a bit more certain for the child, so when this song is performed then we know that we are moving on to a new activity" (INin#Participant-3). Another interviewee also described the arts installation as:

“An enormous room...transformed into an interactive installation with a mathematical focus...there were enormous shapes and different kind of sensory surfaces to explore...using expressive arts to present that learning... Another one was with this focus on circus...the room is kind of transformed into a giant big top...it is dark, there is someone you know who looks like the ringmaster of the circus, and there is a ring” (INin#Participant-1).

He/she talked about using the expressive arts and objects related to the focus of the installation to facilitate learning.

4.3.2.3 Benefits of Using The Creative Arts.

4.3.2.3.1 Remembering. The use of the creative arts was cited by focus groups (1) and (2) and some interviewees as a way to support children with autism by helping them to remember information for different reasons. For example, focus group (1) offered reason that were relevant to the way information is processed, saying, “they are going to your long-term memory rather than your short-term memory or your working memory” (FGin#1). Focus groups (1) and (2) talked about reason to do with the links between physical involvement and physical memory. For example, focus group (1) argued that enacting things in dramatic form helps autistic children to remember things “because of the physical memory of doing something rather than something done around them, and being more involved” (FGin#1). Focus group (2) also talked about links between music, dance movements and retaining information, saying, “you can see children rocking sometimes...the rhythm they have got like that body memory of it” (FGin#2). One interviewee also noted why drawing or other forms of art could support memory saying: “because it is very visual and it is very personal” (INin#Participant-2).

A number of interviewees believed that the nature of music “helps you remember things...[for] pupils on the spectrum it is easier to learn things with music” (INin#Participant-6). Two interviewees explained why music could be remembered more easily. One of the interviewees gave an example of “rhyming...one two three four and number four and they will say ‘shut the

door' and they remember that rhyme because it has sort of like a beat to it" (INin#Participant-6). The other interviewee talked about reasons to do with the nature of music "because it has got those clues and these repetitions...it kind of helps you remember things...as there are more patterns...in music than in language" (INin# Participant-2)".

Focus group (2) stated that the reason for using songs like "familiar nursery rhymes [is] to chant something...to remember what is going to happen" (FGin#2). Focus group (2) and two interviewees talked about the use of music when teaching maths "is a way of teaching someone to remember" (FGin#2). One of the interviewees gave an example about this practice saying:

"At the beginning of...maths lessons...they sing along to the music and then I pause it then they have to do some work related to the number I have paused it on...what number it is or depending on their ability they have to add five and take away six...For some of my less able pupils...one boy literally cannot count to ten... he just cannot remember but when we sing this song he knows, he sings it" (INin#Participant-7).

One interviewee also would use "singing in English when we are reading a story...[means] they will get to know the words in it" (INin#Participant-6). Another interviewee linked performing activities that link dancing and music with remembering, saying that "in physical education we would do five a day and we will dance and sing along to five a day as well, and like they will remember the moves...they will remember the lyrics" (INin#Participant-6). However, one interviewee believed that the nature of some types of the creative arts could be difficult to use to support remembering information: "like dance and physical art... [but] with music we could all do...word rhyming" (INin#Participant-6).

4.3.2.3.2 Imagination. A relationship between the creative arts and imagination was argued by one interviewee who said: "it is important for all children to engage in the creative arts to develop imagination" (INin#Participant-1). Another interviewee discussed the effect of being in the

arts installation and developing imaginative play skills for example, with a boy who:

“Became very involved in an imaginary situation...they had to...get into this room...and then somebody said you cannot get in it is locked and this boy who is very very quiet said I will get the key and he just ran off and came back with the imaginary key and...it was amazing because I had never seen him do anything like that before because he was a very very anxious child, very logical, very methodical” (INin# Participant-3).

The interviewee was astonished at the way the boy engaged in imaginary play because he did not usually behave in that way.

4.3.2.3.3 Motivation. Motivation was a theme covered in a variety of ways. For example, focus group (2) referred to the importance of knowing what type of creative art children with autism preferred and were motivated by, because some of them “do not like art at all but they all really like music and making loud noises” (FGin#2). One interviewee believed that the nature of the creative arts is the motivating factor for autistic children because “there is no real rights and wrongs...drawing...does not have to be perfect just like they just get creative...it is not like giving a word problem” (INin# Participant-6).

Focus group (1) and some interviewees offered examples of using the creative arts as a motivational tool. For example, focus group (1) stated that it “might be quite motivating for a child...if they were involved in acting something out, then they could watch it back” (Focus group#1). One interviewee discussed using a child with autism interest in art lessons to motivate him to stay calm, saying: “he also attends for longer during those lessons...we can use that sometimes if we think he might be beginning to become unsettled. We can use art as a motivator to calm him down” (INin# Participant-5). The interviewee also stated that the motivational nature of a visual art activity was used to support autistic children and help them learn about adjectives: “for my less able children...it was to create a sort of collage

of a bird by...requesting coloured feathers using adjectives...it helped them [to learn] because they were motivated by the activity” (INin#Participant-5).

Another interviewee compared teaching maths with and without songs in terms of attention, saying:

“If we were studying shapes. I would hide some shapes in the box and just bring the box out. I think not many pupils would be paying attention, so we...have a song about what is in the box and then we know that everyone will sing...and then they are really motivated by that and then you sort of hook them in” (INin#Participant-4).

One interviewee talked about using a clip named Five a Day, and found this activity useful as a motivation, movement break, to assess understanding or independence:

“A lot of them are quite into the Five a Day...the idea is that five minutes of exercise a day is good...and there is music and...two people modelling the moves...we use it as a movement break sometimes...if you can tell that the children getting bit restless...to assess their independence or understanding” (INin#Participant-5).

Another interviewee considered that drama was a strong motivation and “helped a lot of the secondary pupils with their English and their language by helping them build sentences...they were more motivated if they were in the role of someone” (INin#Participant-2). One interviewee talked about the arts installation with a scientific focus as a motivational space for children with autism to explore, saying “the last one was about science...it was motivation...they were amazed by it, really excited...hands on getting involved” (INin#Participant-7).

Focus group (2) and some interviewees referred to a relationship between motivation and remembering, saying, “you are engaging the child in an enjoyable way and therefore that increases interest and motivation and I think that has a positive impact on memory” (INin#Participant-1). Focus group (2) gave an example of this relationship when using music/songs:

“A lot of the pupils I have worked with are really motivated by it...and they make a positive association and also can help with memory listing to a certain song...kind of trigger...when I listen to this song this what we have to do...tidy up time or relaxation time” (FGin#2).

One interviewee gave an example about using music as a motivational tool when learning maths, and how it supports a boy to remember counting numbers, saying: “One boy particularly is very verbal, but he literally cannot count to ten...he just cannot remember, but when we sing this song he knows, he sings it...motivation I guess that is the key there” (INin#Participant-7)”.

4.3.2.3.4 Engagement. A relationship between the creative arts and engagement was identified by one interviewee who argued: “many of my pupils...are more engaged...with the arts lessons...like dance movement...and using art materials...and music” (INin#Participant-6). Some interviewees described how children with autism behaved and engaged with things when they were in a multi-sensory environment like the arts installation. One interviewee referred to children “who are quite passive or under-aroused” and how they engaged with objects:

“Those children [for whom]...it is difficult to get them to respond to things...when you put them in an immersive kind of interactive environment such as an expressive art installation...they can really kind of become very aware of what is around them and show...more communication, more engagement, initiating...and moving towards things exploring them voluntarily” (INin#Participant-1).

Another interviewee stated that although autistic children can be hyper-sensitive to being in a busy space like an arts installation, which include loud sounds and bright light, they showed attentiveness and behavioural engagement, saying: “the sort of levels of engagement for pupils who may find it quite stressful being all together in a big room which is quite loud and

bright, but you really notice that they all sort of sat and looked” (INin#Participant-4). One interviewee also referred to physical and sensory or sound engagement, saying: “having spring noises it will be like pushing and pulling and things like that and they just are more engaged and making the same noises that the springs make” (INin#Participant-6). In a maths installation, another interviewee talked about engaging with learning tasks, describing “a boy...who saw some amazing numbers on sticks, and he was moving all around and he sequenced them and he had never done that in class before... I guess because he was engaged” (INin#Participant-7).

4.3.2.3.5 Feelings. One of the themes concerning feelings, which was shared by a number of interviewees, was linked to the usefulness of seeing the creative arts in relation to “expressing emotions and managing emotions...regulating emotions” (INin#Participant-5). Some interviewees talked about the visual arts and feelings. For example, one interviewee emphasised the value of using drawing as a medium of self-expression, saying: “being able to express yourself in ways that you can use drawings...rather than in a way where you are having to use speech...which may not be your strength” (INin#Participant-3). Another interviewee discussed understanding emotions through drawing, saying he/she “had asked them to draw themselves when they are feeling particular ways...they gave me a lot more information than they would have been able to do if they were just using words, or just talking” (INin#Participant-1)”. The interviewee explained other examples about drawing and expressing feelings. The first one was about a boy who “talked about having a volcano in his chest...I said...can you draw what it looks like, how it feels? And he was drawing very specific things...hands and hearts using quite specific colours and he talked about a volcano” (INin#Participant-1). He/she also mentioned another example of a boy who drew diagrams to explain:

“Different levels of emotional arousal...feeling very calm was like a very calm day with no wind and...having a light breeze was feeling a little bit disturbed...feeling particularly angry and anxious [the wind became] a hurricane...that particular boy

was a lot more engaged when he was talking in those terms...I think it helped him to clarify and express himself" (INin#Participant-1).

One interviewee gave an example that related to drawing and managing anxiety, saying that a "secondary pupil who loves drawing...likes comic characters. When he is feeling very anxious he has a diary and he will write a few sentences and then he will draw and...that helps him with his anxiety" (INin#Participant-2). Another interviewee found that using visual arts activities helped reduce challenging behaviour: "Doing things like painting...drawing in arts...recoloring playdoh...is very calming for them and I am finding there are less behaviour issues now that we are...doing art-based afternoons" (INin#Participant-4). One interviewee talked about a nonverbal boy who used drawing as a way of familiarising himself to his new class. "He drew nine teddy bears and then we realised that there are nine children in his new class. It is kind of his way of adapting to his new class environment" (INin#Participant-7).

Focus group (2) and two interviewees connected music with feelings. For example, focus group (2) stated that when using music for autistic children it "can really affect [their] mood" (Focus group#2). One interviewee talked about a girl with autism and using music therapy, saying: "this child was really benefiting and really progressing with her emotions because she was able to express them in the form of...loud beating, banging music and would come out...more settled" (INin#Participant-8). Another interviewee also described using songs in different ways, such as:

"When some of my pupils get upset a staff member can sing them a song and it calms them down, or put a song on the computer...the *Frozen* song...and he will sing along to it. That really calms him down" (INin#Participant-4).

The interviewee cited an example in which he/she used a song to teach emotions and to help children communicate about their feelings:

“We have started recently a sort of hello song in the morning which mentions different emotions...I have the symbols and then they choose...there would be the angry one and the sad one, and...they could come in the morning and say ‘I am more a bit anxious today’ and you can maybe take him out for a break” (INin#Participant-4).

A number of interviewees talked about drama and feelings. For example, one interviewee compared using role-play with using verbal communication, commenting that: “maybe some children would engage and would actually talk about their feelings through a character as opposed to them being asked how they feel directly” (INin#Participant-8). Another interviewee stated that using clips from a film helped children with autism to express their emotions:

“The film Inside Out...there is a girl and she felt different emotions...there are different people inside her brain. There is anger, there is joy...we have been watching...clips of that, pausing it so that pupils can act out that specific emotion...and they used the characters to talk about their feelings” (INin#Participant-7).

One interviewee also reported using drama therapy with a boy, and reported that “his anxiety levels were just so much better, and he was so much more regulated and...able to...manage some situations that he would not been able to manage before” (INin#Participant-3).

4.3.2.3.6 Communication. One interviewee mentioned that the use of the creative arts “may not be the formal communication that you know as speech...but it is definitely a form of expression” (INin#Participant-3). Another interviewee talked about using the creative arts with autistic children and the nature of communication, saying:

“Their communication is not typical, so you need to find atypical ways for them...this can be done through expressive arts...the drawing can show how a person's emotions feel, or their movements, or the way they respond to stuff” (INin#Participant-6).

Focus group (2) also suggested using the creative arts to encourage verbal communication because “it is always good to try something new and see if new language comes from it” (FGin#2). Focus group (1) discussed the effect of the creative arts on communication saying, “it would lead to improved communication...if it did not lead to speech it might lead to communicative intent, doing things that involve communication” (FGin#1). Focus group (2) reported that “singing songs can...really stimulate verbal communication” (FGin#2). Focus group (1) claimed that children with autism show active participation “when they know a familiar song, and you can sing part of it and then stop so that they can finish it for you” (FGin#1).

One interviewee referred to the arts installation and verbal communication, saying that “one particular child was very anxious and...was more verbal in this situation where it was a very creative environment involving dance and acting and music and lots of props” (INin#Participant-3). Another interviewee mentioned songs, engagement and communication, using the example of a boy who has difficulties with:

“Functional communication, but you put on...music, familiar songs to him, and...we are singing, and he can join in. He is getting the right words at the same time as everyone else is...it is a really nice way to engage with him...to stimulate his verbal communication and his communication with others” (INin#Participant-6).

Two interviewees talked about the creative arts and how autistic children communicated their understanding when learning. One of the interviewees said: “If you...wrote a song...you could make a sort of call and response or leave gaps for them to initiate communication” (INin#Participant-4). He/she designed a song about the Docklands Light Railway (DLR), for example, saying:

“All aboard the DLR, the DLR, the DLR...and then I leave a space...because I tried to teach him his surname and his first name he responds back with [his name] and then...I can understand he knows his...first name and surname” (INin#Participant-4).

The other interviewee used collage to help with literacy and found this activity useful for children with autism, helping them to communicate their understanding, and for the interviewee to assess their understanding, saying:

“We were recently reading a book that involved a colourful painting full of birds and so my less able children...were to create a sort of collage...of a bird, and they were requesting using adjectives...they were also practicing their communication. It supports their understanding of colours so if they...requested a blue feather and then reached for the yellow feather, I could teach them what blue means” (INin#Participant-5).

One interviewee gave an example about a game that involved modeling actions and communication saying:

“It is all about choosing an action, and then everyone in the room has to copy them...like touch your head...or turn around. It is about getting them to communicate with each other and also watch what other pupils are doing and copying actions” (INin#Participant-4).

The arts installation and its connection with communication was a theme mentioned by focus group (1) and two interviewees. For example, focus group (1) referred to a boy whose “actions and communication was like we had never seen before...he was verbal but...his use of speech was quite limited in lots of situations” (FGin#1). One interviewee mentioned that an activity in the arts installation stimulated children with autism to interact and communicate verbally, saying, “you will be saying ‘push’ and they might say ‘pull’ when they would not usually be talking to you like that, but they are excited like to hear the responses going and responses coming” (INin#Participant-6). Another interviewee talked about autistic children and initiating communication, saying:

“It really depends on the child. Some of our more able children here might be able to start...verbalizing and talking about...being able to get on the spaceship and fly somewhere...For other children, that might be a huge step for them...to have the confidence or the motor planning to get on the spaceship by themselves...and actually not need adult prompting or adult support to do so” (INin#Participant-1).

The interviewee argued that when being in a creative space like the arts installation, some children might show signs of verbal communication, while others might not be able to communicate verbally, but show their involvement in other ways.

4.3.2.3.7 Learning. Learning was a theme covered in variety of ways. One interviewee, for example, argued that using the creative arts in learning is a multimodal process, saying:

“It is a little bit like multisensory learning, where you are engaging lots of different systems at the same time. It is a lot more engaging...more arousing for the brain, and therefore you are going to expect learning to take place at a deeper level” (INin#Participant-1).

Another interviewee referred to the sensory differences some autistic children can experience when being in an environment like an arts installation, saying: “some of our children here would find that very challenging...going into an environment where there was possibly dimmed lights, loud music and lots of people, but I can appreciate some of them really enjoy it” (INin#Participant-8). One interviewee also stated that the use of creative arts is a pleasing and satisfying experience for children with autism, saying: “If you have just loads of art materials...it could be whatever they wanted to be and it is always fulfilling” (INin#Participant-6).

Another interviewee talked about his/her experience of involving autistic children in learning using the creative arts:

“They achieve things that maybe they would not have contemplated...any child that is involved in something that is as a creative arts slant...can bring out the best in the child and...makes it just more enjoyable as well” (INin#Participant-3).

Focus groups (1) and (2) and some of the interviewees linked using the creative arts with supporting learning. For example, one interviewee viewed

the creative arts as “a safe space to learn” (INin#Participant-6) while another interviewee viewed the arts as a “creative space where they can express themselves” (INin#Participant-1). Focus group (1) mentioned that using the creative arts for “children who are using...language more can be quite useful in terms of coaching particular phrases that can be used in difficult situations” (FGin#1). Focus group (2) talked about the use of the creative arts and making information more understandable for autistic children, saying:

“Anything that takes away the language but puts in more props and more...actual music or art will enhance that...For storytelling we would do a lot...I guess...you are socially representing if you are using roles... using characters” (FGin#2).

One interviewee stated that using the creative arts was useful when teaching young children “around the age of four or five...we would use art for everything and music for literacy” (INin#Participant-1). Another interviewee referred to the use of visual art when teaching maths for children with autism saying, “sometimes they will request a certain number of stickers to add to a picture” (INin#Participant-5).

A number of interviewees talked about music and learning. Two interviewees found that “using rhythm and song with...children with learning difficulties has definitely supported their language development and their expressive language” (INin#Participant-3). One of the interviewees’ reasons for using music and songs when teaching language development was “because...it helps children memories language and...if they are motivated they are eager to use it more” (INin#Participant#2).

One interviewee referred to the benefits of using music to teach math, commenting that “some pupils...have learnt to count through singing because we listen to lots of songs...it has really helped with his understanding numbers and number concepts” (INin#Participant-4). The interviewee gave an example of using a song to teach a boy mathematics:

“We came up with a song...together about him stopping at different stops of the DLR...so he would name the different stops and I would ask him how much have you topped up your Oyster Card, and he replies in the song like a hundred pounds” (INin#Participant-4).

One interviewee talked about singing songs in English lessons, such as when “reading a story we might do that, and they will get to know the words” (INin#Participant-6). Another interviewee mentioned using music and songs for “things like transitions...for children who have a high level of learning needs...things are a bit more certain...when this song is sung then we know that we are moving on to a new activity” (INin#Participant-3).

Two interviewees talked about children with autism becoming more independent when using the creative arts in different contexts. One of the interviewees referred to the arts installation setting and independence, saying:

“We had these different sorts of statues and they had to...match the shapes on the statue, so some of my pupils who require a lot of support in the classroom are kind of exploring on their own with a little bit less support” (INin#Participant-4).

In a class setting, the other interviewee stated that one child “was much more independent actually in art lessons than he is in other lessons” (INin#Participant-5).

4.3.3 Q.3 What Are Professionals' Perspectives on The Impact of Using Social Stories in Conjunction With The Creative Arts for Individuals on The Autism Spectrum?

The study's theoretical framework integrates Bandura's social learning theory with Gardner's multiple intelligences theory. The Integration of these theories will offer more insights into how engaging autistic children by using the creative arts could impact Bandura's four observational learning stages when using Social Stories. Table (4.11) presents themes and subthemes, providing example quotes and then connecting them with Bandura's and Gardner's categories.

Table 4.11 Themes and example quotes from interviews on the impact of using Social Stories with the creative arts

Themes	Sub- Themes	Example quotes	Bandura with Gardner categories
Reasons for using Social Stories with the creative arts		“It might be to have music on with your Social Story, that then is associated with that Story...or drama...or doing a bit of role play to help a child to understand a situation and maybe practice behaviours” (FGin#1).	Retention and reproduction with musical and bodily-kinesthetic intelligences
Benefits of using Social Stories with the creative arts	Remembering	“The visuals make it very much more permanent...by using their words and their drawings it becomes much more personal to them and they are visual learners as well” (FGin#2).	Retention with verbal-linguistic and visual-spatial intelligences
	Motivation	“Changing the lyrics of a song is very motivating, such as <i>The Wheels on the Bus</i> because it helps with memory and makes it more motivating for those pupils who would find it really hard to maybe sit around the table and look at the book” (FGin#2).	Motivation and retention with musical intelligence
		“I think for a lot of them it would be motivating to use the creative arts, and then you can deliver the content of the Social Story after you have got their attention” (INin#Participant-4).	Attention and motivation with musical, visual-spatial and bodily-kinesthetic intelligences
	Involvement/Engagement	“Using the creative arts is more active, so they are physically doing it, which could help with memory and maybe be more motivating for them, more engaging” (INin#Participant-7).	Attention, motivation and retention with musical, visual-spatial and bodily-kinesthetic intelligences
“If you wrote, say, a song together, or if you were making drawings, I think it would be important to involve them from the start where it is		Motivation and retention with musical and visual-spatial intelligences	

		appropriate...I think that would increase their motivation and understanding" (INin#Participant-4).	
	Communication	"Using drama to support children to understand what appropriate voice levels are" (INin#Participant-3).	Retention with bodily-kinesthetic intelligence
The effects of using Social Stories with the creative arts		"Because they are more likely to remember it...engaged and motivated by it...especially with role play...like practicing it, it is easier then to practice it in real life situations" (INin#Participant-7).	Attention, retention, motivation and reproduction with bodily-kinesthetic intelligence
Limitations to using Social Stories with the creative arts		"If they are doing role play and they get...carried away with it, over excited...you lose...focus on the core message" (FGin#2).	Attention with bodily-kinesthetic intelligence
Assessment when using Social Stories with the creative arts		"Drawing is probably the easiest one to see...if what is been talked about is understood, but it's more tricky with music or drama I guess just because it is there and then it is gone" (INin#Participant-1).	Retention with visual-spatial, musical and bodily-kinesthetic intelligences
Views and attitudes on using Social Stories with the creative arts		Another interviewee preferred to use music with Social Stories "to try and make them more memorable" (INin#Participant-3).	Retention with musical intelligence

In this section, professional perspectives consisted of examining different themes concerning, for example, similarities and differences between using Social Stories with and without the creative arts. Other themes covered the reasons and benefits of using Social Stories with the creative arts. The theme relating to benefits consisted of remembering, motivation, involvement/engagement and communication. Additional themes looked at effect, limitations, consideration, assessment, views and attitudes on using Social Stories with the creative arts. These themes and their subthemes are taken from the analysis of focus groups and individuals' interviews.

4.3.3.1 Similarities Between Using Social Stories With and Without The Creative Arts. A common theme cited by a number of interviewees concerning the comparison of using Social Stories with and without the creative arts was sharing similar topics, for example, "in each one you would be explaining a social skill" (INin#Participant-7). Some interviewees mentioned that in both approaches their content is personalised and the sensory needs of autistic children are considered. For example, "you are not going to be using loud bangs and noises for a child that is really sensitive to noise" (INin#Participant-6). Two interviewees also talked about similarities in using language that children can understand, for instance when using a song "you would not be using lots of vocabulary that the pupil did not understand" (INin#Participant-4). Two more interviewees looked at reviewing, commenting that, "in both approaches you might read them repeatedly" (INin#Participant-5).

One interviewee referred to motivation by saying: "you still use motivating things in both...pictures...characters or activities specific to that child" (INin#Participant-7). Another interviewee talked about similarities in the way professionals need to make "sure that they attend, to increase the likelihood of the message going in" (INin#Participant-5). One interviewee stated that in both approaches "the child needs to feel safe" (INin#Participant-8), while another talked about the use of visuals. One interviewee stated that using Social Stories with or without the creative arts would lead to similar outcomes,

saying “I would think the change takes place in a similar way. It is one of the strategies that will contribute hopefully to change...or help a child to understand” (INin#Participant-1). Another interviewee believed that Social Stories provided a framework, but could be delivered in different ways, for example “to read it and...use it creatively as well” (INin#Participant-3).

4.3.3.2 Differences Between Using Social Stories With and Without The Creative Arts. A shared theme cited by focus group (1) and two interviewees concerned a difference related to engagement. When using Social Stories with the creative “the child may be more able to engage than if it is a written piece of work” (FGin#1). Focus group (2) stated that the creative arts “would probably enhance” concentration (FGin#2) when used with Social Stories. Focus group (1) also commented that the emotional experience of using the creative arts would make a difference, saying, “It is no longer the same as these big changes...it then becomes this great song that I quite like” (FGin#1). One interviewee referred to differences in planning, delivering and the overall experience of children with autism:

“The way that you plan them...execute them...with the Social Story I would...take them to a quiet room to read it to them, but if it was some students with the creative arts, we might be outside...It is not like you’re going to be expecting to necessarily sit down and listen to something, it might be them getting physically involved in something instead” (INin#Participant-6).

Another interviewee talked about differences related to interaction and creativity, saying:

“The creative arts gives us more space...like it is not a sitting activity where you just read a Story...if you have music you can move; if you have art you can explore different materials...it becomes more of a movement break as well” (INin#Participant-2).

One interviewee commented that using Social Stories with a creative arts presentation would be different, and “the child would remember more, would understand more, would engage more” (INin#Participant-1).

4.3.3.3 Reasons for Using Social Stories With The Creative Arts.

The idea of using Social Stories with the creative arts, according to focus group (1), is about utilising a creative medium to deliver the Stories as a way of supporting understanding, for example “It might be to have music on with your Social Story, that then is associated with that Story...or drama...or doing a bit of role-play to help a child to understand a situation and maybe practice behaviours” (FGin#1). Focus group (1) also mentioned that this combined method can be used for autistic children who come from different cultural backgrounds as a way to expand on Stories and explore other scenarios relating to their ethnicity, saying: “if a child is at a family event sharing, [would sharing] we kind of talked about it in [the Story] is structured in the same way [as the child family would share]...using the creative arts is really helpful with that transfer to your home environment” (FGin#1).

One interviewee talked about other reasons for using the creative arts, saying that, “if they have not used Social Stories before...or if they are really used to the Social Stories then they could perhaps write...or draw the role...have more involvement in them” (INin#Participant-2). Another interviewee also cited other situations in which the creative arts can be useful, such as with “children who are kind of passive or under-enthusiastic...a child where more traditional Social Stories have already been tried and have not had much impact, or has not seemed to have been understood” (INin#Participant-1).

One interviewee referred to the use of Social Stories with drama “if you are teaching about like conversation skills like eye contact, they can role-play it” (INin#Participant-7). Another interviewee highlighted the benefit of using role-play with Social Stories about friendships, saying that “the child could see and hear the script” (INin#Participant-8). One interviewee’s reasons were linked with needs “to prepare a child for change...to address an issue in their behaviour” (INin#Participant-5).

4.3.3.4 Benefits of Using Social Stories With The Creative Arts.

4.3.3.4.1 Remembering. This theme concerned the use of the creative arts as a means of encouraging the remembering of Social Stories, a theme that was covered by a number of interviewees. One interviewee expressed uncertainty saying, “I do not think it is a definite way to make them more memorable and...hopefully to go into long-term memory” (INin#Participant-3). However, another interviewee argued that using the creative arts might provide “a way in which the child will then remember the message of the Social Story” (INin#Participant-8). Focus group (2) stated that children with autism would remember Social Stories when drawing was used because “the visuals make it very much more permanent...by using their words and their drawings it becomes much more personal to them and they are visual learners as well” (FGin#2). Focus group (1) compared watching a film and reading a book to highlight the differences between remembering Social Stories with and without the creative arts:

“It is easier to remember a film...you have experienced it, you had the music, you had that emotional impact right there...whereas with the book maybe it is...a slower process...with comparing those visuals for a book that is going to be more abstract in your imagination than for a film that you have got a concrete visual image” (FGin#1).

Focus group (2) talked about the arts installation as a space where children with autism acted and practiced what they had learned, saying, “all that was a Social Story before...of what they were going to be doing, then once they are in the installation it became role-play...and they remembered how they should behave” (FGin#2). One interviewee talked about the use of Social Stories with music and remembering, saying that the tune of a song could be used “to support the child to remember...and trigger that memory of the Social Story” (INin#Participant-5).

4.3.3.4.2 Motivation. A shared theme for focus group (1) and one interviewee concerned motivation and interest, “it motivates them...a lot of our kids like to draw and to do art, and if you can somehow like harness that motivating activity and incorporate Social Stories into it...that could be a good thing” (FGin#1). Focus group (2) and one interviewee talked about another relationship between motivation and remembering saying, “if they are motivated by something, then they are more likely to learn it to remember it” (INin#Participant-7). Focus group (2) gave an example about this relationship when song is used with Social Story:

“Changing the lyrics of a song is very motivating, such as *The Wheels on the Bus* because it helps with memory and makes it more motivating for those pupils who would find it really hard to maybe sit around the table and look at the book” (FGin#2).

Focus group (2) said that using photography helped with motivation—for example, “taking the photos themselves...and putting them in the Social Story...that can be quite motivating” (FGin#2). One interviewee associated motivation with attention saying, “I think for a lot of them it would be motivating to use the creative arts, and then you can deliver the content of the Social Story after you have got their attention” (INin#Participant-4). Another interviewee argued that using the creative arts would motivate autistic children, “and maybe repeating it as well would be less so boring than if you just read it to them” (INin#Participant-4).

4.3.3.4.3 Involvement/Engagement. Using the creative arts with Social Stories, as mentioned by one interviewee, might help to involve children with autism in the learning experience, for example: “how to sort of develop the Story...because maybe you would have more input from the actual child...they would be a little bit more involved rather than being sort of quite sedentary if you were just reading” (INin#Participant-3). One interviewee referred to another benefit, saying that children “are also moving, and I think...they need that frequent movement break because it helps them with

their vestibular system, while sitting down for a long time can be a challenge for them” (INin#Participant-2). Another interviewee talked about the effect of active participation saying, “using the creative arts is more active, so they are physically doing it, which could help with memory and maybe be more motivating for them, more engaging” (INin#Participant-7).

One interviewee talked about how to involve autistic children when using music, drawing and drama with Social Stories, saying that “they could sing along with you...or adapt the rhythm to the music...[if] they are really used to the Social Stories then they could perhaps write the role or draw the role” (INin#Participant-2). Another interviewee talked about the impact of getting children with autism involved in the design process, saying, “If you wrote, say, a song together, or if you were making drawings, I think it would be important to involve them from the start where it is appropriate...I think that would increase their motivation and understanding” (INin#Participant-4).

4.3.3.4.4 Communication. One interviewee stated that the impacts of using Social Stories with the creative arts can be “on receptive communication, as in how they understand what is being said. I suppose it might be that the child is using musical instruments or singing a response as well, so it could be expressive” (INin#Participant-1). Focus group (2) argued that drama could also be used to communicate understanding of Social Stories, especially “if they are going to be doing some acting of bits of it in their own way” (FGin#2). Focus group (2) also referred to an example in which drawing was used as a means of communication with a girl, saying: “she was being told to be calm but actually when I picked it with her through drawing, she really had no idea what calm meant...I suppose that sort of helped me understand that actually she had no idea” (FGin#2). One interviewee suggested a way of using music with Social Stories to support understating. He/she would “add in certain gaps, which they could fill with the information, say about the bus maybe, they respond by sitting still...maybe they are starting to understand that they need to sit quietly in the bus” (INin#Participant-4). Another interviewee referred to a Social Story about an

appropriate voice level and suggested “using drama to support children to understand what appropriate voice levels are” (INin#Participant-3).

4.3.3.5 The Effects of Using Social Stories With The Creative Arts.

One of the interviewees in focus group (1) stated that autistic children play a role in determining the effect of using Social Stories with the creative arts:

“We have heard lots of adults with autism talk about...how they experience music or their reactions to colours...It depends on the child; you cannot assume it is going to have the same effect before and after that when we...make it...very stimulating and much more accessible than just with words” (FGin#1).

However, another interviewee from focus group (1) and a further interviewee talked about the usefulness of using drama with Social Stories about sharing, commenting that “practicing it in a really structured environment...would have more impact” (FGin#1). The interviewee also referred to reasons that might support children with developing change saying, “because they are more likely to remember it...engaged and motivated by it...especially with role-play...like practicing it, it is easier then to practice it in real life situations” (INin#Participant-7). Another interviewee referred to the effect of using drawing saying, “one of my teachers...did lots of...little books with a child where the child did lots of drawings in the Social Story and I think that was a very very effective [approach] for a period of time” (INin#Participant-3). One interviewee talked about the effect of a musical Social Story used with children saying, “we use *The Wheels on the Bus*...they were learning new words by changing that song...maybe all the pupils got more understanding and maybe more advanced language skills...it could increase vocabulary” (INin#Participant-2).

One interviewee believed that using Social Stories with the creative arts could “support children to deal with change in a more constructive manner” (INin#Participant-5). Another interviewee commented on the way children might react when they use the creative arts for the first time with Social

Stories. For example, they may feel “a bit nervous about it and then if you kept on doing it the way they reacted to...the same music...things may change as they may become more familiar with it...and therefore behaviour...or engagement may be better” (INin#Participant-6).

4.3.3.6 Limitations To Using Social Stories With The Creative Arts.

One of the main obstacles in using Social Stories with the creative arts was identified by focus groups (1) and (2) and one interviewee as self-limitation. “I would not feel very confident writing...a catchy piece of music because I am not good at music” (FGin#2). Focus group (2) also talked about copyright issues. To overcome these limitations focus group (1) suggested using Social Stories “with a catchy bit of music...it is fine...if it was nursery rhyme...I guess everyone has sung them” (FGin#1).

Focus group (2) and one interviewee referred to the negative effect of being overstimulated: “if they are doing role-play and they get...carried away with it, over excited...you lose...focus on the core message” (FGin#2). Another interviewee argued that when using the creative arts with Social Stories “children could be bit more distracted...and that might detract from...their understanding of the message of the Story” (INin#Participant-5). However, one interviewee suggested placing some restrictions when using Social Stories with the creative arts in order to prevent distraction, for instance, “if it is a child who might get very absorb when they are drawing...you might put some kinds of limits on that” (INin#Participant-1).

Accessibility is another limitation. Focus group (2) mentioned that “you cannot have it everywhere you go...you are reading a Story about going on the tube when you are on the tube there is difficulties...you cannot play the [Story] song” (FGin#2). One interviewee believed that the problem with using the creative arts with Social Stories is that:

“Not all of our children would be able to cope maybe with the different sensory demands that we would make on them. However, if it was something like painting

or drawing, that could potentially be quite a low anxiety format for some children, then it might work more” (INin#Participant-8).

Another issue concerns delivering Social Stories with the creative arts for the whole class. For example, focus group (2) and one interviewee argued that this might require a lot of work and might be time-consuming: “incorporating the creative arts may require a lot more planning and organizing...it always has to be very personalized...so the same Social Story might be done in eight different creative ways for one class” (FGin#2). Focus groups (1) and (2) talked about the difficulty in responding to autistic children different preferences in the same class: “Two or three of those children would really love to draw, but then two or three of them might really respond to the music” (FGin#1). Focus group (1) suggested designing “a multisensory Social Story” (FGin#1)” and focus group (2) said “you have to choose a song that... everyone is going to be OK about” (FGin#2”).

Focus group (1) discussed difficulties with engagement, highlighting “incorporating more creative arts in a way that is going to engage everyone in the room” (FGin#1). However, one interviewee offered an opposing perspective: “I think the creative arts could definitely make it more engaging if you are having more than one pupil involved in that situation” (INin#Participant-3). Another interviewee supported this view and elaborated on it commenting that using only Social Stories can be “quite hard for a lot of them to attend because it is not one-to-one. I cannot keep refocusing them...if I was using the creative arts it might be easier to engage multiple pupils in the same Story” (INin#Participant-4”).

4.3.3.7 Consideration When Using Social Stories With The Creative Arts. Different aspects of this theme were mentioned by a number of interviewees. For instance, focus group (2) and two interviewees talked about considering the different interests of children with autism in the creative arts to create personalised Social Stories by: “knowing their likes and dislikes, their motivations, thinking about past experiences with them and what they have really engaged in” (INin#Participant-6). Focus group (1) mentioned

checking whether a song or “music is meaningful to them” (FGin#1). One interviewee suggested making sure that autistic children “can understand the context of the Story...I guess an ability to express whether they understand it” (INin#Participant-8). Another interviewee highlighted taking notice of the setting, “like making sure that when the Story is presented to the child they are not distracted, and it is a calm quiet environment...all their needs are met and they are ready to attend and focus” (INin#Participant-5).

4.3.3.8 Assessment When Using Social Stories With The Creative Arts. This was a theme mentioned by some interviewees when discussing the ways in which comprehension is assessed. For example, two interviewees talked about assessing children’s understanding by “observing their responses, looking at their engagement and...understanding in terms of the creative arts element over time” (INin#Participant-1). One interviewee suggested using comprehension questions. Another interviewee compared different types of creative art and assessing understanding of Social Stories, saying that “drawing is probably the easiest one to see...if what is been talked about is understood, but it’s more tricky with music or drama I guess just because it is there and then it is gone” (INin#Participant-1).

4.3.3.9 Views And Attitudes on Using Social Stories With The Creative Arts. This theme was highlighted by a number of interviewees. One interviewee was in favour of using Social Stories with the creative arts, saying, “it is a great idea to bring...a different angle to the delivering of Social Stories because of the visual format and the fact that they are actually doing it” (INin#Participant-8). Another interviewee also liked the idea of using the creative arts because “Social stories are often very tricky for children with autism whatever the content is...I think anything that can make it more engaging and more accessible is welcome” (INin#Participant-1). One interviewee viewed the inclusion of the creative arts as an active component of Social Stories, saying, “I just think active learning so much better than passive learning” (INin#Participant-7). Another interviewee preferred to use

music with Social Stories “to try and make them more memorable” (INin#Participant-3).

Focus group (1) showed an interest in knowing the perspectives of autistic children on their experience of using Social Stories with the creative arts after couple of years, saying, “I also think about the longer term impact...we did that Story together, what do you think about it? How it is seen by people with autism themselves as they grow up” (FGin#1). Focus group (2) wanted to see how Social Stories would be used with the creative arts in practice “because all the logic behind it I think would work” (FGin#2). However, one interviewee was unable to express his/her view because he/she had “never seen a Social Story that used the creative arts” (INin#Participant-5).

4.3.4 Q.4 How Do Professionals Approach The Use of Social Stories With The Creative Arts for Individuals on The Autism Spectrum?

The study's theoretical framework integrates Bandura's social learning theory with Gardner's multiple intelligences theory. The integration of the two theories can provide a better level of understanding on how using Social Stories with the creative arts offers more opportunities for autistic children by supporting their cognitive processes through the prompting of their multiple Intelligences. Table (4.12) presents themes and subthemes, provides illustrative quotes and links them with Bandura's and Gardner's categories.

**Table 4.12 Themes and example quotes from diaries and diaries-based individual interviews
on the use of Social Stories with the creative arts**

Themes	Sub-Themes	Example quotes	Bandura and Gardner categories
Reasons for using the creative arts with Social Stories		“One child really loves drawing, so it is clearer to him than the written word what is going on...and then it is a Story that he can take away to remember” (Dlin-1#Participant-1).	Retention with visual-spatial intelligence
		“Role-play allows children to interact with the Story in an embodied way and to rehearse real life situations, integrating the Story and sometimes further supporting the message of the Story through generalization in role-play” (DI-3#Participant-2).	Retention and reproduction with bodily-kinesthetic intelligence
The procedure of using Social Stories with the creative arts	Designing	Knowing what type of creative art children with autism are interested in and using it with Social Stories can be useful because they might “engage more quickly and pay more attention to the Stories...it will be more memorable for them and they are more likely to think about that Story when they are encountering situations in life” (Dlin-2#Participant-2).	Attention and retention, reproduction with musical, visual-spatial and bodily-kinesthetic intelligences
	Delivering	“Would sit down and read a Story or do some kind of enactment around the Story even if the child was doing something else in the room, because in my experience they are usually hearing it and taking it in and they will engage when they can because often things like eye contact or the level of engagement we might want can feel quite threatening and even painful to somebody on the spectrum” (Dlin-2#Participant-2).	Attention and retention with verbal-linguistic and bodily-kinesthetic intelligences

Using Social Stories with different types of the creative arts	“We will draw like a picture of her upset, and then sing a little song about what she could do... (Dlin-1#Participant-1). “We just sort of acted it out; what does it mean to be calm? What does it look like?” (Dlin-1#Participant-1).	Attention and reproduction with visual-spatial, musical, bodily-kinesthetic and interpersonal intelligences
Using Social Stories with music	“Like a little drum on a heartbeat or...when it rains...that is a way of engaging them” (Dlin-3#Participant-2). Singing specific words this “helps children remember them” (Dlin-3#Participant-2).	Attention with musical intelligence Retention with musical intelligence
Using Social Stories with drama	“To engage a child...because they are seeing what they do for the first time...when the child is subsequently in a situation where they would stamp their feet and scream they might...be able to say to their parents ‘I am in a funk’ rather than stamping their feet and screaming” (Dlin-2#Participant-2).	Attention and reproduction with bodily-kinesthetic intelligence
Using Social Stories with drawing	Drawing a mapped Social Story to help them “see the whole picture...that is a really motivating way of remembering and thinking through the structure of what is going to happen” (Dlin-1#Participant-1).	Retention and motivation with visual-spatial intelligence
Using Social Stories with games	Incorporating aspects of the Story into the game like “what did they do in the Story they said you have smiled at the end so my Simon says... let us have a big smile (Dlin-3#Participant-2)”.	Reproduction with bodily-kinesthetic and interpersonal intelligences
Assessing comprehension	The main points of the Stories can be summarised by drawing up “a list for the child to refer to...to ensure the child understood key points we went through the drawings together and I then asked child to tell the Story” (DI-1#Participant-1).	Retention and reproduction with visual-spatial and verbal-linguistic intelligences

The effect of using Social Stories with the creative arts

Using drawing can “help maintain the attention of the child and they are able to refer to it as the work belongs to them” (DI-1#Participant-1).

Attention with visual-spatial intelligence

Using drama makes Social Stories “more appealing and memorable to the child” (DI-3#Participant-2) because “if it is appealing they engage with it better, and if it is memorable they will integrate it better” (Dlin-3#Participant-2).

Attention and retention with bodily-kinesthetic intelligence

An immediate effect of using Social Stories with drawing is that the “child is able to understand the upset and is calming down (approximately 1 hour afterwards)” (DI-1#Participant-1).

Retention and reproduction with visual-spatial intelligence

The issue of maintenance

When drawing, songs and role-play was used with Social Story “The TAs a couple of days later...said that she seemed to understand more when they asked her to calm down” (Dlin-1#Participant-1).

Retention and reproduction with visual-spatial, musical and bodily-kinesthetic intelligences

Social Stories with the creative arts and change

“By seeing different reactions to a situation or [by] being able to respond differently in a difficult situation or being able to accept a change in a timetable” (Dlin-1#Participant-1).

Reproduction with musical, visual-spatial and bodily-kinesthetic intelligences

In the following section, the way professionals' use Social Stories with the creative arts for children on the autism spectrum highlighted different themes, namely aims, reasons and responsibilities. Another theme covered procedure and consisted of the subthemes of designing, delivering and assessing. The theme of effect also takes in subthemes of maintenance and generalisation. Other themes covered the use of Social Stories with the creative arts and change, as well as professionals' future aims. These themes and their subthemes are taken from the analysis of diaries and diary-based individual interviews. This question was answered only by professionals who have experience in using Social Stories with the creative arts.

4.3.4.1 Professionals' Background Information. Diaries were completed by two participants from the United Kingdom. Participant (1) works in a school as an associate head teacher, while participant (2) works in a private psychotherapy practice as a therapist. Both participants work with children on the autism spectrum. Participant (1) stated that he/she uses Social Stories with the creative arts "with the older students...like ten, eleven, twelve... up to fourteen, so different ages" (Dlin-1#Participant-1). Participants (1) and (2) indicated that they worked mostly with children on the autism spectrum who are "verbal but not massively" (Dlin-3#Participant-2).

Participant (1) has been using Social Stories with the creative arts for more than 10 years, and was trained by speech and language therapists to use Social Stories. Participant (2) has been using Social Stories with the creative arts for 1 to 5 years. He/she did not attend any specific training related to Social Stories, but is "trained as an integrative arts psychotherapist, and various CPDs I have attended nurture some of the creative possibilities that can be incorporated into Social Stories" (DI-2&3#Participant-2).

4.3.4.2 Aims of Using Social Stories With The Creative Arts. This theme covered the variety of aims. For example, participants (1) and (2) would use Social Stories to support children "with an understanding of a behaviour and emotional outbursts" (DI-1#Participant-1). Participant (1) stated

that for one boy the aim was “for him to understand why he got upset” (Dlin-1#Participant-1)”. Participant (1) also used Social Stories with a girl to help “her to understand what she can do when she is feeling very emotional and what it meant to be calm” (Dlin-1#Participant-1). Participant (2) also mentioned helping autistic children to “understand social expectations...health and safety” (DI-2&3#Participant-2).

4.3.4.3 Reasons for Using The Creative Arts With Social Stories.

This theme covered the different reasons that were mentioned by participants. For instance, participant (2) suggested attracting attention saying, “children tend to pay more attention...you are doing something that is maybe more intriguing to them” (DI-2#Participant-2). Participant (2) also believed that “using different means of illustrating a Story...would help a child understand...it” (Dlin-2#Participant-2). Participant (2) would also use Social Stories with the creative arts for reasons to do with the nature of the Stories themselves, saying that they “can feel too instructive, fail to grab the attention of the client and be less memorable and relational” (DI-2#Participant-2). Another reason, as participant (2) argued, is to support creative thinking:

“If you start taking a rigid Social Story approach...you are not supporting some of the skills that children actually need to develop, and you are kind of giving them the idea possibly that you can have a rule book for everything...but...the form of art itself...is creative and generally flexible...things that are creative do not get stuck with a kind of...what is it called?...tunnel vision thinking” (Dlin-2#Participant-2).

Participant (1) used songs in conjunction with Social Stories because “this particular girl really loves singing...[to] engage her” (Dlin-1#Participant-1). Participant (1) talked about different reasons for using Social Stories with drawing that were linked to the impact of the medium, saying that, “it is more permanent...it supports the child's understanding...it develops their ability to use something to be more independent because they can refer to a visual...to learn how to do something” (Dlin-1#Participant-1). Participant (1) also cited other reasons to do with preference and remembering, saying that “one child

really loves drawing, so it is clearer to him than the written word what is going on...and then it is a Story that he can take away to remember” (Dlin-1#Participant-1).

Participant (1) also believed that drawing helped with self-expression and self-regulation, for example speaking of one child: “that was the way he calmed down...and he could express himself and he could go through his emotions and help himself understand” (Dlin-1#Participant-1). Participant (2) indicated that the use of drawing with Social Stories for children with autism could be “a way of engaging them in the Story if they are not paying attention” (Dlin-2#Participant-2). Participant (2) would also use drawing to explain “aspects that are a bit hard about the Story” (Dlin-2#Participant-2).

Participant (2) viewed the use of drama with Social Stories as a way of supporting understanding, practice and generalization saying:

“Role-play allows children to interact with the Story in an embodied way and to rehearse real life situations, integrating the Story and sometimes further supporting the message of the Story through generalization in role-play” (DI-3#Participant-2).

Participant (2) would also use enactment with Social Stories to monitor children’s understanding and using the Story for example, to find out whether there were parts of the Story “that children have not fully understood...or which they understood differently” (Dlin-2#Participant-2). Another reason for using drama, according to participant (2), was to find out “what parts of the Story the child found most appealing” (DI-3#Participant-2).

Participant (1) mentioned the use of Social Stories with “art and singing” (DI-1#Participant-1). However, participant (2) used different creative approaches including “photographs, drawing, drama and creative storytelling with sound and puppetry” (DI-2#Participant-2). Participant (2) disagreed with the assumption that autistic children might not like, become engaged with or get distracted when using the creative arts materials with Social Stories. Participant (2) argued that “when we write kids’ Stories we usually make them quite engaging and fun, and I think with Social Stories we can do the same

thing” (Dlin-2#Participant-2). Participant (2) gave an example of how to make Social Stories more creative by challenging the way emotional messages are used, saying:

“The end of the Story might be...the day in school, and when they finish their school the teachers will be happy and mummy will be happy...I am not sure how healthy that is as a message for a child, that you should do everything to make other people happy. I think that it is positive and helpful in some ways but in a balance” (Dlin#Participant-2).

This led participant (2) to suggest making the endings of Social Stories more creative and relational by talking about shared feelings. Participant (2) gave an example, saying “I am new in school and Mummy comes in, and you see a big smile on her face and you see Mummy and you have a big smile on your face and everybody is feeling happy” (Dlin#Participant-2). The reason Participant (2) wanted to use Social Stories in a relational manner is that “some children will have their notion of happiness and other children will not, but that gives you an opportunity to actually express in a relational way with a child what happy is...and that is memorable for them” (Dlin#Participant-2).

4.3.4.4 Responsibilities When Using Social Stories With The Creative Arts. When Social Stories are used with the creative arts, participant (1) mentioned that his/her role would be to make sure that children with autism understand “consequences/cause and effect of their behaviours or emotional outbursts” (DI-1#Participant-1). Participant (2) highlighted multiple roles like “to observe the child, create a Social Story that corresponds to a need the child has, engage the child in the Story and to ensure that the message within the Story was understood” (Dlin-3#Participant-2). Participant (2) also talked about supporting generalization and differentiation:

“I also supported the generalisation of some Stories by observing different situations in which they could be applied as and when they arose. Furthermore, I supported differentiation, also making a point of noticing, with and for the client, occasions where the Social Story rule might not apply” (DI-2#Participant-2).

The role of children with autism is viewed by participant (1) as facilitators where “they are facilitating their own understanding of their emotions and their own behaviours wrote Story together...and then draw [them] out” (DI-1#Participant-1). Participant (2) stated that the role of autistic children is to display an active participation such as “to engage with the therapy, be open to Stories and arts experiments introduced in the therapy, to explore the meaning and content of the Social Story” (DI-2#Participant-2). Participant (2) also mentioned that the role of children with autism is also to make an effort “to understand, integrate and sometimes to generalize the message contained within the Story” (DI-3#Participant-2).

4.3.4.5 The Procedure of Using Social Stories With The Creative Arts.

4.3.4.5.1 Designing. Information about specific issues for autistic children is gathered from different sources, including the creative arts. According to participant (1): “from the child through drawing and through music...the staff member will have told me, or I will have had a report of behaviour” (DI-1#Participant-1). However, participant (2) used different methods to find out more about children with autism and their needs and capacities before designing a Social Story with the creative arts, using methods such as talking “to parents always about their children...what they like what they do not like” (DI-2#Participant-2). Participant (2) would also interact with and observe autistic children in a playful way for a couple of sessions in order to collect information, saying:

“I pick something up and start playing with it...whether they join me or not I notice what they are playing with...the distance that they are comfortable with physically...how much eye contact they make...what their capacity is for calm time and how energized they might be...what their speech and language capacity is...some of their sensory needs or issues” (DI-2#Participant-2).

Participant (2) talked about the way his/her observation was documented and the reasons behind it, saying:

“I used to take more process notes, but because of the GDPR [General Data Protection Regulation] I had to reduce my note taking [drastically]...but while I am working with a child consistently over time I retain all of that detailed information...and you are able to use that information to think about the Social Story” (Dlin-2#Participant-2).

Participant (2) believed that knowing what type of creative art autistic children are interested in and using it with Social Stories can be useful because they might “engage more quickly and pay more attention to the Stories...it will be more memorable for them and they are more likely to think about that Story when they are encountering situations in life” (Dlin-2#Participant-2). Participant (2) talked about involving a child with autism in designing a Social Story about school using photography, and discussed the potential benefits of engaging with that process saying: “it is more interesting and exciting for them to see something that they did...become something that they can relate to more” (Dlin-3#Participant-2). Participant (2) identified aspects to consider when using Social Stories with the creative arts:

“You have to be very clear about the goal of the Story and have thought through some of the issues around the Story that could arise. Otherwise, when using the arts to explore further, different scenarios can be introduced, and if you do not remain very clear about the goal and intended meaning, it can be lost or diluted” (DI-2#Participant-2).

Participant (2) also indicated that failing to remain clear on the focus of the Story could result in losing their meanings and intentions when different scenarios are introduced through the use of the creative arts.

4.3.4.5.2 Delivering. Social Stories with drawing and/or singing, as participant (1) mentioned, would be delivered by him/herself and “then the staff will...do it with the child back in class...but then the way that is reflected back might not be singing...the teacher with the teaching assistant will [normally] go through the pictures” (Dlin-1#Participant-1). Participant (2) also

discussed the way he or she would deliver Social Stories with drama in a responsible manner, for example he/she:

“Would sit down and read a Story or do some kind of enactment around the Story even if the child was doing something else in the room, because in my experience they are usually hearing it and taking it in and they will engage when they can because often things like eye contact or the level of engagement we might want can feel quite threatening and even painful to somebody on the spectrum” (Dlin-2#Participant-2).

Participant (2) indicated that Social Stories with the creative arts “may be revisited on a weekly basis” (DI-2&3#Participant-2). Participant (2) also referred to reasons for reviewing Social Stories, such as:

“If I use this kind of music...and then the child might not respond...I need to repeat it a few times because I know that sometimes children are picking things up or are interested and I am not seeing it...memory can last for different amounts of time, but if you repeat something lots of times eventually it goes in and it is absorbed...they will come into full contact with you” (Dlin-2#Participant-2).

He/she believed that using the Stories more than once would give autistic children time to notice the Story and show if they were interested in some aspect of it, support engagement and remembering.

4.3.4.5.2.1 Using Social Stories With Different Types of The Creative Arts. The use of multiple types of creative art was described by participant (1), who used drawing, singing and role-playing to reinforce a Social Story about regulating a girl’s emotion. He/she mentioned that the first step was to draw together “pictures of what had happened, but then thoughts about the emotions...actually she did not understand what calm was, so we broke down what it meant for her to be calm...we drew it” (Dlin-1#Participant-1). After the Story was drawn, participant (1) went through different pictures with the girl and sang songs:

“We will draw like a picture of her upset, and then sing a little song about what she could do...we sang of our little hands on our knees and then listening to the teacher, looking at the teacher, taking deep breaths, sitting still... we [would] come to a little picture of her being happy and we will sort of make up a little rhyme about ‘oh look, you are happy, you’re happy and you know it...’ (Dlin-1#Participant-1).

Participant (1) also indicated that enactment was used with the same Story: “we just sort of acted it out; what does it mean to be calm? What does it look like?...I would initiate and then she would model...hands on knees, she put her hands on her knees” (Dlin-1#Participant-1). At the end of the Story participant (1) asked the girl to make “choices, so here is your emotion...your reaction...we sort of look at the pictures and then say you know where do you want to be? This way or this way?” (Dlin-1#Participant-1). Participant (2) also described the way he/she would use drawing, sounds and acting in the discussion of a Story to demonstrate and stress on body and emotional experiences, for instance: “we might draw a happy face... what can you feel in your body...? Integrating again sound...my heart is beating and my eyes are open wide and I am smiling so I am showing happiness” (Dlin-2#Participant-2).

4.3.4.5.2.2 Using Social Stories With Music. A variety of ways were described by participant (2) concerning the use of music. For example, he/she would use sounds of musical instruments “like a little drum on a heartbeat or...when it rains...that is a way of engaging them” (Dlin-3#Participant-2). Another way, as participant (2) said, would be by using songs like “incorporating a song at the end...everybody is feeling happy and then you are happy and you know it clap your hands” (Dlin-3#Participant-2) or to sing specific words. Participant (2) found that this “helps children remember them” (Dlin-3#Participant-2).

Participant (2) talked about music, repetition and nonverbal autistic children saying,

“If you repeat with somebody who is nonverbal...the same sounds and gestures many many times then actually they will often try at some point to do something, even if it is just saying hello, and you have kind of done a hello song every time with them but it is not unusual to have a session further down the line where you hear them say hello or you will see that they are communicating that in a more direct way” (Dlin-3#Participant-2).

Participant (2) believed that repeating a song, for example, would stimulate nonverbal children to communicate verbally or physically.

4.3.4.5.2.3 Using Social Stories With Drama. The procedure of dramatizing Social Stories was described by participant (2), who said that when reading, he/she “dramatized the Story with voice, facial expression and gesture...[then] we pretend to be characters in the Story...sometimes alternating characters...so that the child got to experience the different feelings of the different characters” (Dlin-3#Participant-2). Participant (2) compared using Social Stories with and without drama in terms of communicating certain aspects of the Stories saying, “It is just about what the child is feeling or thinking or doing in the Story...whereas when you are doing role-play there might be more space for the child to express how they actually feel” (Dlin-3#Participant-2). He/she argued that the role-played scenario might be more memorable than the text alone, saying:

“It might be that the actual Story is remembered less than an aspect of the play around the Social Story, and that is fine because the play is supporting the Social Story. They need to remember the experience or some content in order for it to have any kind of significant impact” (Dlin-2#Participant-2).

Participant (2) talked about how the use of drama with Social Stories could help with understanding social emotions saying, “to see me role-playing how I think they might feel, but if I role-play how I think the other child might feel coming into their social space...I suppose making the social dynamics in particular understood” (Dlin-3#Participant-2).

Participant (2) also argued that using Social Stories with and without drama differed in terms of incorporating negative responses. He/she said “usually in Social Stories you would only include the positive, you would not include any of the negative behaviour...when you are using enactment you could include more of the responses [i.e. negative behavior] that the child might have to that situation” (Dlin-2#Participant-2). Participant (2) gave an example where positive and negative responses could be incorporated when role-playing a Social Story, saying:

“If a child has been in a hurricane meltdown every time they have been told no about something in the Story, you might have all of the positive outcomes...but you can also include sort of yes sometimes it is not like that...yes sometimes you just want to stamp your feet and make a screaming sound” (Dlin-2#Participant-2).

Participant (2) highlighted different reasons for role-playing negative responses, such as to engage children with Social Stories, to mirror behaviour and to support remembering a word that replaces a specific behaviour:

“To engage a child...because they are seeing what they do for the first time...when the child is subsequently in a situation where they would stamp their feet and scream they might...be able to say to their parents ‘I am in a funk’ rather than stamping their feet and screaming” (Dlin-2#Participant-2).

Participant (2) also gave an example of using drama to support differentiation and generalisation, saying:

“You might do a Social Story where at school you know you go to the teacher and you get the sand timer and then you share...then you might enact with the child...this does not quite work if you go to the park...with mummy and daddy...They do not have a timer, so what are you going to do there...? Shall we see what it would be like? I am going to be you...you be the child coming up and asking to play...or saying it is my turn” (Dlin-2#Participant-2).

Participant (2) mentioned that when using drama with Social Stories for children who are nonverbal, he/she “might be doing a lot more of the

enactment than they are” (Dlin-3#Participant-2). Participant (2) talked about the importance of being well prepared with suitable responses for children to role-play and alter aspects of Social Stories, because “when one is not thus prepared there is a risk of confusing or over-complicating the message of the Story” (DI-3#Participant-2).

4.3.4.5.2.4 Using Social Stories With Drawing. The way to create pictorial Stories was described by participant (1) who used stories that consisted of drawn pictures connected with arrows, speech bubbles and a written sentence under each picture. He/she gave an example of this process:

“He was upset with himself because he had been late...we went through and drew pictures together...and we drew speech bubbles and then sort of regular sentences underneath...we drew child A being late and then an arrow [that showed] where was he going. I was going to just draw a little picture...he is going in he is doing his art, what is this? And then he tells me about what this picture is and we talk about that and draw an arrow into what happens next [I say] ‘how are you feeling?’... and we will draw what he could do differently...what a good choice is to make here, and a good choice is to relax and take off my jacket and do my artwork” (Dlin-1#Participant-1).

Participant (1) mentioned that for some autistic children it is important to involve them in drawing a mapped Social Story to help them “see the whole picture...that is a really motivating way of remembering and thinking through the structure of what is going to happen” (Dlin-1#Participant-1). Participant (1) also talked about a child with autism who drew a collection of Social Stories for example, “about feeling angry...how I can calm down...? Things that he could refer to, to help him understand his own emotions” (Dlin-1#Participant-1).

Participant (2) used drawing to incorporate important aspects that are “not in the text of the main Social Story but have become part of the Story as something that is elaborated on” (Dlin-2#Participant-2). For example, he/she would ask a child with autism to draw his/her feelings when something happened, which “might be a kind of a scribble or a smiley face” (Dlin-

2#Participant-2). Participant (2) talked about incorporating the interests of autistic children when using drawing with Social Stories in order to engage their interest:

“If I draw a train track or a road...children who enjoy those kinds of things will feel quite comfortable drawing a car onto it, and then we talk about the car’s journey, and that might be an elaboration of the Story” (Dlin-2#Participant-2).

Participant (2) argued that asking some autistic children to draw could sometimes be quite frightening, because they “will have a very literal understanding of drawing and so they will feel like they need to know exactly what image you want them to draw” (Dlin-2#Participant-2). Because of this, participant (2) pointed out that he/she might do the drawing to “give them a sense of comfort but also to interact with what they are doing because...if you ask them to do something that they find threatening... or anxiety provoking they will seem disinterested and they will...do something else” (Dlin-2#Participant-2).

4.3.4.5.2.5 Using Social Stories With Games. A game called Simon Says, which is about copying, can be used with Social Stories, as indicated by participant (2), who said, “If I say ‘Simon Says pat your head’ and the child pats his/her head...then they get a turn, and they say ‘Simon says stick your tongue out’” (Dlin-3#Participant-2). Participant (2) would use this game for different purposes, as “a way of bringing children into doing something together or mirroring...If you are doing a Social Story and...the child is not very engaged you might then shift slightly away from this Story” (Dlin-3#Participant-2). Participant (2) talked about incorporating aspects of the Story into the game like “what did they do in the Story they said you have smiled at the end so my Simon says... let us have a big smile (Dlin-3#Participant-2)”. Participant (2) also stated that sounds could be incorporated into the game for instance, “you might say ‘Simon Says tap your feet’ [makes sound of tapping] or Simon says...‘shall we make the noise of

you and Daddy walking to school?” (Dlin-3#Participant-2)”. Participant (2) believed that autistic children like this game because “it ends the next moment and it is their turn...and there is an invitation to join in and it is playful and it...has structure” (Dlin-3#Participant-2).

4.3.4.5.3 Assessing Comprehension. After Social Stories have been delivered, participant (1) mentioned that the main points of the Stories can be summarised by drawing up “a list for the child to refer to...to ensure the child understood key points we went through the drawings together and I then asked child to tell the Story” (DI-1#Participant-1). Participant (1) also noted that the key points are created for children to take away as well as the Social Stories they have drawn, which they can then use as a reminder to support maintenance “over the following weeks” (DI-1#Participant-1).

Meanwhile, participant (2) used different techniques with children to assess their comprehension of Social Stories. For example, he/she would ask children with autism questions like “what do you think happened in that Story...or how did you feel about this bit of the Story...and they might talk about it...or play it or draw parts of it” (Dlin-2#Participant-2). Participant (2) also described how he/she assesses individual levels of understanding by using drama and observing their behaviour while interacting with them to see if “they are able to show me through their play or through what they say...what they have taken in” (Dlin-2#Participant-2). Participant (2) also mentioned that sometimes the actions of children with autism during a play might deviate from the Social Story:

“But with the way that they are looking at me and interacting, they are still showing me that they know what the Story wanted, that they are kind of playing...with what would happen if I did it this way? And that is fine too, and that again allows for differentiation” (Dlin-2#Participant-2).

However, he/she believed that the actions of autistic children could be a way of exploring further relationships with the Stories.

4.3.4.6 The Effect of Using Social Stories With The Creative Arts.

This theme covered a variety of effects. Participant (2), for example, talked about the anticipated effects of using Social Stories with the creative arts on supporting engagement and understanding, saying: “if the arts make the Story more enjoyable, the client is likely to want to explore more Stories, to work with the concepts introduced through Stories...and to integrate the messages in the Story” (DI-2#Participant-2). Participant (2) also stated that using drama makes Social Stories “more appealing and memorable to the child” (DI-3#Participant-2) because “if it is appealing they engage with it better, and if it is memorable they will integrate it better” (Dlin-3#Participant-2).

Participant (1), for example, believed that when using Social Stories with drawing can be helpful in areas related to attention and ownership. Participant (1) said that this activity “help maintain the attention of the child and they are able to refer to it as the work belongs to them” (DI-1#Participant-1). “I think they just become their thing because they have done lots of drawing” (Dlin-1#Participant-1). Participant (1) talked about the immediate effects of using Social Stories with drawing, such as the “child is able to understand the upset and is calming down (approximately 1 hour afterwards)” (DI-1#Participant-1). Participant (1) also argued that the use of Social Stories with drawing has been particularly effective with students who are more verbal and cognitively able: “those children can understand their own emotions or are starting to verbalize about their own emotions” (Dlin-1#Participant-1).

4.3.4.6.1 The Issue of Maintenance. Participant (1) assumed that a boy’s desired behaviour was maintained because “whenever he sees me he will...wave and he is really very calm around the school” (Dlin-1#Participant-1). Participant (2) believed that there is a relationship between understanding and maintenance, commenting: “if the message has been fully integrated it can last for months (until an experience that challenges it somehow) or permanently” (DI-2&3#Participant-2). An example that might support this relationship was cited by participant (1), who used Social Stories with some types of creative art for a girl to regulate her emotions and to explain the

meaning of the word 'calm'. He/she asked: "the TAs a couple of days later...said that she seemed to understand more when they asked her to calm down" (Dlin-1#Participant-1).

Participant (1) would continue to offer children with autism "support and references for behaviours when similar situations occur over next few weeks" (DI-1#Participant-1). Participant (2) also talked about different ways of support maintenance such as engaging children in a positive experience and appreciating their achievement:

"Having positive experiences when they show difficult kinds of behaviour, then they are more likely to keep doing it...when they manage to do something that...they have been struggling with...you share something nice like...a high five or...smile and make full eye contact" (Dlin-2#Participant-2)".

Participant (2) also referred to other ways to support maintenance, such as:

"If a Story is repeated as many times as the client feels the need, and explored through the arts variously...[and] if a Story has been fully engaged with and is not overly complex or conflicting in some way with any fixed ideas the client might already have...from outside of therapy" (DI-2&3#Participant-2).

Participant (2) also argued that sometimes to maintain the effect of Social Stories they need "to be further refined or built upon with another Story" (DI-2&3#Participant-2).

4.3.4.6.2 The Issue of Generalisation. Participant (1) mentioned that he/she is unaware whether the two children he/she worked with had tried to generalise from their Social Stories, saying, "I have not in those two circumstances...[but] you would hope...that he would think about these strategies that we talked about...drawn from to help him use them in different situations" (Dlin-1#Participant-1). Participant (2) believed that autistic children do generalise, but that "obviously it depends on the Story" (DI-2&3#Participant-2). Participant (2) also considered how long it might take to

support integration and generalisation, concluding that it would take: “a couple of months of exploring the topic in various ways...and sometimes revisiting the Story” (DI-2&3#Participant-2). Participant (2) mentioned that sometimes children and their parents would let him/her know about situations that needed further support with generalisation:

“The differentiation process can be child initiated, so sometimes you are going through a Story and they will bring in a context where that story does not work and then you start rehearsing and talking about that with them using the arts...They might go off and do something or be in a situation, and the parents come back and say well this happened” (Dlin-2#Participant-2).

In terms of generalisation, participant (2) argued that professionals need to think very carefully about the details of Social Stories, because “children who are quite fixated on routine can become very attached to” (Dlin-2#Participant-2) these details. For example, he/she referred to a Social Story about sharing using a timer at school in terms of over-generalisation saying, “the risk is that they will generalise that to everything...and then they are in the playground with their parents and the parents do not have a timer like they do at school” (Dlin-2#Participant-2). Participant (2) showed why it is important to support differentiation and generalisation saying, “you are doing it with them rather than leaving it as a kind of question of how do I deal with this situation...? Because often what is new is the most anxiety provoking” (Dlin-2#Participant-2).

Participant (2) also discussed the best approach to supporting generalisation, noting that: “we could have another Story or we could just imagine all of the different places and play those scenarios out because you do not want the child to become dependent on having a Story for every situation” (Dlin-2#Participant-2). Participant (2) talked about the way she/she supported generalisation by “helping children differentiate between when that rule might be something helpful to think about and when they might actually need to look at the environment and be creative, think creatively” (Dlin-2#Participant-2). Participant (2) referred to the method he/she uses to help children “realise

how creative they are, so when you have seen them come to a creative solution about something in the room you go and remind them” (Dlin-2#Participant-2). Participant (2) talked about how he/she would support autistic children within a therapeutic context when introducing generalisation. For example, if a child gets frustrated and upset because he is told that it is wrong to apply a specific behaviour to every situation, then a therapist could say:

“I wonder what other situations do not have one rule, and then you try and find... examples that they can sort of say ‘yeah I am already doing that and that is different and I got used to that’...so you are promoting a kind of flexible way of thinking and interacting in the world” (Dlin-2#Participant-2).

Participant (2) also argued that unsupportive parents might prevent generalisation and integration, saying:

“If mum is persistently not following the Story, not taking the time to notice with the child...then the motivation from the Story is suddenly gone...because...I have got my Story and it is supposed to be like this, and something is different” (Dlin-2#Participant-2).

Participant (2) also compared using Social Stories with and without the creative arts in terms of imagination, and linked it with generalisation saying, “If you read quite a dry Social Story and it has not really engaged the imagination of the child...when you use the arts you can support...and engage the imagination and that can assist generalisation” (Dlin-2#Participant-2).

4.3.4.7 Social Stories With The Creative Arts and Change. When Social Stories are used with the creative arts, participants (1) and (2) both viewed the nature of change in terms of children with autism “using the Social Story in life so generalizing it” (Dlin-2&3#Participant-2). Participants (1) and (2) linked the nature of change with flexibility, for instance, “by seeing different

reactions to a situation or [by] being able to respond differently in a difficult situation or being able to accept a change in a timetable” (Dlin-1#Participant-1).

4.3.4.8 Professionals’ Future Aims Relating to The Use of Social Stories With The Creative Arts. This theme covered a range of aims. Participant (1), for example, would like to study the efficacy of Social Stories with the creative arts further for a “younger child who is non-verbal and has some sensory issues, and see if there is any impact” (Dlin-1#Participant-1). Participant (2) expressed an interest in examining Social Stories with the creative arts by “creating a collection of Stories and approaches for common challenges for people on the spectrum – building some creative tools that could be used by others” (DI-2#Participant-2)”. Participant (2) also mentioned that this examination could help with establishing “evidence based practice...provide some structure, and thinking around creative arts interventions that would support therapists to maintain a clear focus on the goal and intentions of the Story so that it does not become lost or overcomplicated in play” (DI-2#Participant-2).

4.4 Reflective Statement

The qualitative findings covered four questions. The first finding examined professionals’ perspectives on the nature of using Social Stories with autistic children. The data was analysed through the lens of Bandura’s social learning theory, and results can be categorised under four general themes: definition, planning, delivery and evaluation. Findings showed that the way professionals use Social Stories reflected the stages of observational learning: attention, retention, reproduction and motivation. The data offered a deeper understanding on how and why professionals considered each of the four stages when using Social Stories with children on the autism spectrum. The data revealed that professionals’ ways of planning for the use of Social Stories highlights for example the importance of using images and considering children’s interests, abilities and sensory needs. It also showed

that considering these aspects can be helpful for supporting autistic children when delivering Social Stories through attracting their attention and increasing their engagement, motivation, understanding and recollection of the messages contained within the Stories. Within the evaluating theme, the data showed that although some professionals were aware of the importance of assessing children's understanding of Social Stories and used different methods to achieve that objective, other professionals did not consider or do this in their own practice.

The second question concerned professionals' views on the nature of the creative arts. The study drew on Gardner's multiple intelligences theory and linked it to the use of creative arts. The data covered three themes based on definitions and reasons for using the creative arts with Social Stories. A further theme concerned the benefits of using the creative arts, and covered subthemes such as remembering, imagination, motivation, engagement, feelings, communication and learning. Findings showed that the creative arts can be used in different ways to educate autistic children by supporting them when learning subjects, expressing their feelings and managing their behaviour. Another finding relates to the use of art installations as a way of exploring and interacting with different stimuli, thereby offering children with autism the opportunity to learn, develop their creativity and interact with others.

The third question explored professionals' perspectives on the impact of using Social Stories with the creative arts. The study used the proposed theoretical framework that integrated Bandura's social learning theory with Gardner's multiple intelligences theory to analyse the data. Professionals' perspectives consisted of examining nine different themes, concerning similarities and differences between using Social Stories with and without the creative arts. Other themes covered the reasons for and benefits of using Social Stories with the creative arts. The theme relating to benefits consisted of remembering, motivation, involvement/engagement and communication. Additional themes looked at the effects, limitations, considerations, assessments, views and attitudes to using Social Stories with the creative

arts. The qualitative findings offered insights into participants' observed and anticipated impacts in areas such as concentration, motivation, understanding and remembering. The findings of the study showed that some professionals favoured the idea of using Social Stories with the creative arts. The data also revealed that including the creative arts is seen as an active component that supports the use of Social Stories. However, it also highlighted some of the limitations of the integration of Social Stories with the creative arts: for example, autistic children can become overstimulated and distracted. Another issue concerns delivering Social Stories with the creative arts for the whole class.

The fourth question concerned the ways in which professionals use Social Stories with the creative arts for children on the autism spectrum. The study once again drew on the integration of Bandura's social learning theory with Gardner's multiple intelligences theory. The analysis of the data highlighted seven different themes, including aims, reasons and responsibilities. Another theme covered procedures and consisted of the subthemes of designing, delivering and assessing. The theme of effect also includes subthemes of maintenance and generalisation. Other themes covered the use of Social Stories with the creative arts and change, as well as the future aims of the professionals involved. The data revealed that professionals used different creative arts modalities such as drawing, music, drama and games alongside Social Stories. The data also revealed various reasons for using the creative arts, such as to attract and retain attention and to support creative thinking. The data showed that music and drawing could be used to encourage engagement; it showed that drawing in particular supported independence, promoted self-expression, self-regulation and could be used to explain difficult or more complex aspects of the Story. The study also showed that drama could be used to support relational play, understanding and generalization. The data showed that the creative arts could be used at different stages: before, during and after the Story to support the implementation of Social Stories. For example, they could be used to collect initial information about a child before using Social Stories; different types of creative art could be used individually and together during the use of Social Stories and to assess

comprehension after the Social Stories had been told. Participants reported that autistic children became more involved in the process of using Social Stories when the creative arts were also involved. The data revealed that there were noticeable positive effects on the engagement and understanding of autistic children. The study also revealed other effects of using Social Stories with drawing, such as maintaining attention, improving understanding, increasing ownership and improving behaviour. Meanwhile, the use of drama with Social Stories helped to increase interest and remembering.

4.5 Chapter Summary

This chapter presented the quantitative and qualitative data separately. Firstly, the questionnaire data were analysed using descriptive statistics and secondly the focus groups, individual interviews, diaries and diary-based individual interviews were addressed using thematic analysis. The next chapter will integrate the findings from the quantitative and qualitative data in order to discuss the research questions from a combined perspective.

Chapter 5: Discussion

5.1 Introduction

In this chapter the quantitative and qualitative findings will be integrated and discussed (Creswell et al., 2003; Ivankova et al., 2006). The integration of the data will give a richer insight into the phenomenon and a deeper understanding of the research questions (Khanal, 2013). The qualitative findings will be used to explain, elaborate on and to enrich the understanding of the quantitative data, and the quantitative and qualitative data are compared to examine parallels and differences within and between the two approaches.

In constructing the research processes – including the design of data collection methods and the analysis and discussion of the data, I have used Bandura's social learning theory and Gardner's multiple intelligences theory. The study examined professionals' perspectives within a framework that explored the nature of Social Stories (Q1) through the lens of social learning theory, and the nature of the creative arts (Q2) through the lens of multiple intelligences theory. These two areas were then brought together to investigate the impact (Q3) and the use (Q4) of Social Stories with the creative arts for individuals on the autism spectrum.

The four research questions will be discussed as follows: The first question examines the way participants see and understand the nature of Social Stories. The second question addresses the ways in which participants talked about the potential of the creative arts in their anticipation of their use of Social Stories. The third question discusses what participants said about the potential impact of using Social Stories with the creative arts. The fourth question examines the ways in which participants directly engaged in using Social Stories with the creative arts for individuals on the autism spectrum. To answer these four questions as fully as possible, the data will be integrated by linking the quantitative data with relevant material from the qualitative data for each question. For the first three research questions I will only identify and discuss the percentage of participants who disagreed with statements in the questionnaire where participants have addressed them as part of the

qualitative data. The chapter will conclude by summarising the study findings, discussing the limitations of the project, the contribution of the study and offer recommendations for future research.

5.2 Q.1 What Are Professionals' Perspectives on The Nature of Using Social Stories for Individuals on The Autism Spectrum?

The first research question looked at the perspectives of professionals on the nature of using Social Stories for individuals on the autism spectrum. Within the data there were some areas that showed parallel relationships between the quantitative and the qualitative findings, and as such they reinforced each other. The qualitative data also highlighted subtle differences and offered additional insights on top of the quantitative data.

The study findings show that professionals' views and practices on Social Stories reflect Bandura's theory concerning the role of observational learning in the modelling and development of various social activities. According to the quantitative data, the majority of participants' views on the nature of Social Stories showed a high degree of agreement on the importance of Bandura's four observational learning stages. Meanwhile, the qualitative data showed that participants were aware of the importance of concentration, understanding, remembering, motivation and the reduction of external distractions to facilitate effective change and development for children on the autism spectrum through the medium of Social Stories. Participants also reported using a variety of ways to support the observational learning processes when using Social Stories with autistic children. The data also provided insights into participants' practical experiences, attitudes and challenges within the use of Social Stories and the ways in which these areas could be linked to Bandura's observational learning theory. The study findings showed that participants' ways of thinking and working with Social Stories explicitly or implicitly reflected Bandura's theory.

The integrated data illuminated the nature of the relationships between the different observational learning processes and the use of Social Stories for individuals on the autism spectrum. The data also showed that these

processes are not only important in their own right, but they are also interrelated see table (5.1). The study also found that some participants connected lack of motivation, understanding or retention as factors that negatively influence the outcome of using Social Stories as an intervention process for children with autism. This also supported Bandura's theory argument that the unsuccessful development of behavioural change may result from failure in one of the observational learning processes. Although the data showed that there are other external factors, such as issues with the way Social Stories are designed and delivered, that could affect the success of the intervention, I believe that these factors would also hinder children engagement with the four observational learning processes, and that this in turn would prevent children from benefiting from Social Stories.

However, there were two debatable areas within the observational learning processes concerning attention and retention. Few participants' showed opposing perspectives on whether children with autism need to concentrate when using Social Stories. This might be linked with linguistic issues associated with the terms *attention* or *concentration* and the nature of autism. Another controversial theme within the subject of attention was in the way some participants' had different views on the signs children with autism exhibit that determines whether or not they are concentrating. Another area is linked with retention, in which a number of participants within focus group (2) showed contradictory views on the importance of remembering social information within Social Stories in terms of when, who and what to retain.

Table 5.1 Bandura's observational learning stages linked with the quantitative and qualitative data

Observational learning stages	Questionnaire items	Examples of relationships between the four processes
Attention	It is important for individuals to concentrate when learning Social Stories.	<i>Attention, motivation, engagement and could lead to understanding and remembering:</i> "If they are motivated and engaged, they are more likely to remember it because they are more likely to have paid attention...they are more likely to have taken in the messages and perhaps to be able to kind of recite those messages back to themselves" (INin#Participant-5).
	When engaging with Social Stories individuals need to concentrate in order to understand the Story.	
Retention	It is essential that individuals understand the content within Social Stories.	<i>Distractions could affect understating and remembering:</i> "...if it is a noise they do not like they might then have negative memories of the Story...more distractions are just not going to help understanding" (FGin#2).
	When learning Social Stories any disturbance can reduce individuals' ability to understand the Story.	
	Remembering the content of Social Stories can help individuals to relate the Story to changes in their own lives.	<i>Understating is important to develop change:</i> "they would have to understand the Story if we were hoping for it to have an impact" (INin#Participant-3).
		"If they do not understand it then they would not be able to understand what they are supposed to do" (INin#Participant-2).
Motivation	Motivation is important for individuals to be engaged with Social Stories.	<i>Motivation could lead to retention:</i> "If they are motivated this would definitely help them retain the important part of the Story" (INin#Participant-4).
	Engaging with Social Stories can help individuals to create change in their own lives.	

Motoric reproduction

The following section discusses the integrated data in greater depth. Within the quantitative data, the majority of opinions agreed (68.6%) or strongly agreed (9.4%) that it is important for individuals to concentrate when learning Social Stories. Focus groups (1) and (2) also reported similar opinions. This high level of agreement suggests that concentration is seen as a key factor when using the Stories. Studies such as Penton (2010, p.183) also argues that when using Social Stories “the participant's ability to concentrate appears to be related to the outcome of the intervention”. Asiago (2019) also reported that a teacher find it difficult to use Social Stories with children on the autism spectrum because their incapacity to focus and attend long enough. Additionally, 65.4% agreed and 7.5% strongly agreed that most of the participants believed that when engaging with Social Stories individuals need to concentrate in order to understand the Story. Focus group (1) also offered similar reasoning. The literature on Social Stories does not currently engage with such understandings, so this finding adds to the importance of the relationship between concentration and understanding the message within the Stories. This relationship is also acknowledged when learning in general. Mori et al. (2014), who argued that “when the person is highly concentrated, he can understand and memorize many complicated concepts in a short period of time, whereas when he is not concentrating, he cannot learn as effectively” (p.34). This alludes to the effect of concentration on understanding and memorizing information.

However, in the quantitative and qualitative data, some participants conclusions differed from the views of the majority of the participants and authors such as Penton (2010). The quantitative data, for example, showed that a small percentage of participants (8.2%) disagreed about the importance of concentration. Looking at the qualitative data might help to understand this disagreement, as one interviewee challenged that way of thinking and argued in favour of attention rather than concentration saying:

“I do not think it is important for them to be...concentrating initially. I think children on the spectrum often look as if they are distracted but are listening very carefully...so they might be looking out of the corner of their eyes while doing something else and making a noise but still be seeing...and listening to what you

are doing... I think of course a child needs to be paying attention to take something in (Dlin#Participant-2)".

The interviewee also differentiated between concentration and attention saying:

"Concentration...is detailed attention which is very clear. You are focusing on something and so if I was reading a Social Story with a child...they would be looking at what I am reading...[in terms of] attention, a child might be doing something else while still paying attention to the Story and it might be less [obvious] to me that they are paying attention" (Dlin#Participant-2).

However, the way the interviewee talked about attention might be ambiguous. Additionally, his/her definition of attention could be interpreted as describing other types of attention. As Moran (2012, p.118) argues that the term attention:

Is inherently paradoxical because it is familiar and yet mysterious. It is familiar because it is used frequently in everyday discourse—as happens, for example, when a music teacher asks her students to “pay attention” to something important that she is about to say or demonstrate to her class...but the term ‘attention’ is also mysterious because it refers to many different types and levels of psychological processes.

Some of these types and levels include concentration/focused attention, selective attention, divided attention (Commodari, 2017; Moran, 2012) and alternating attention (Commodari, 2017). This shows that although attention is commonly used as a term with a certain meaning in everyday language, it is in fact a complex term that can refer to specific categories. Matlin (2009) also states that “most theorists now accept that the hallmark of attention is the concentration of mental activity cited by Moran (2012, p.118)”. This may indicate that attention and concentration are considered to be interrelated to the extent where they are taken to mean the same thing.

One interviewee argued that knowing whether children with autism are paying attention may be unclear because their way of concentration might be less visible compared with other people, or they may show less effort to communicate within a relationship of a class setting. Focus groups (1) and (2), as well as the interviewee, also talked about the implications of circumstances in which professionals or parents might not realise that children have understood Social Stories, and might only realise that they have taken the Story in when it is revisited later. These findings help to understand the nature of concentration for autistic children and its implications within the context of Social Stories in practical terms in relation to the role of feedback from parents or professionals.

One interviewee, for example, talked about signs that may show if children with autism are not concentrating when using Social Stories, such as engaging with something else like a toy or not looking at the Stories. However, focus group (1) challenged this way of thinking, arguing that it is important not to assume that concentration is defined by sitting still because children with autism might be processing the Story verbally while appearing to be doing something else. The focus group also gave an example of how an a child engages with Social Stories while reading from the PowerPoint presentation and walking around in class, which did not prevent him from concentrating on the Story and understanding it. These findings offer insight into professional ways of thinking about concentration and autistic children when using Social Stories.

Two interviewees mentioned that it might be difficult to expect some children to sit still and read Social Stories and pay attention because their concentration span can be quite short. This finding supports Dodd (2005), who argues that many people on the autism spectrum struggle to attend to something for long enough to comprehend the essential information. In order to support concentration, a number of participants suggested different approaches. For instance, focus group (1) talked about approaches to encourage concentration, such as meeting children's sensory needs and choosing an appropriate and motivating Story. They also mentioned that using pictures of superheroes would motivate children to tell Social Stories and

could support concentration and help them to learn the Story. A similar perspective was shown by Dodd (2005), who states that “motivation plays a part in a person’s ability to sustain attention over a period of time” (p.50). Asiago (2019) also believes that it might be difficult for children with autism to sustain their attention on things that they do not find interesting. One of the interviewees also talked about considering the length of the Stories and children’s ability to concentrate. This finding is similar to Gray (1998), who concludes that “attention span directly influences the content and format of each Social Story” (p.175). Another interviewee argued in favour of a relationship between personal preference and concentration. He/she believed that the use of the song *The Wheels on the Bus* with Social Stories helped to support concentration. Mori et al. (2014) also found that when music is played it led to positive effects on concentration levels, and this in turn would contribute to the level of performance.

In terms of quantitative data, the combined percentages of those who agreed (45.9%) and who strongly agreed (9.4%) show that slightly more than half of the participants believed that when learning Social Stories, any disturbance can reduce individuals’ ability to understand the Story. Focus group (2) concurred with this statement and talked about the relationship between a quiet location and understanding. They also argued that distractions like noise could give children negative memories of Social Stories because they might associate them with noises they dislike. Focus group (2) also stated that it may be difficult to know what children are focusing on because most of them find it hard to filter out disruption. Two interviewees believed that distractions needed to be reduced in order to improve concentration. One interviewee talked about the negative effect of being in a busy room on children levels of engagement with Social Stories, and links that with difficulties in filtering out disruptions.

In line with these findings, Penton (2010) argues that the unsuccessful outcome for some participants may occur because they were distracted while reading Social Stories. Penton suggests that there might be a link between location, concentration and behavioural changes. Meanwhile, another study by Scattone et al. (2006) argues that the disruptive behaviour of peers might

have a negative effect on a child's behaviour, thereby limiting the effect of Social Story. This might mean that physical distraction could be a factor that shifts the child's attention from the message of the Story and prevent its influence. The current study found that distraction not only negatively affects concentration but also engagement, understanding and memory.

This study also found that the participants did not take distraction passively. Instead, they discussed ways of redressing the situation and resolving the distraction. Two of the interviewees talked about considering locations with no distractions when using Social Stories. Some interviewees mentioned using different techniques to deal with distraction. For example, one interviewee said that when using Social Stories with textile patches, if children get distracted, the interviewee would cover the patches with his/hers hands to redirect their attention to the Story page, and then remove his/hers hands. Another interviewee would prefer to take children to a different location with no distractions or read Social Stories at another time. One interviewee would verbally redirect children to listen and to look at the Story. Some of these findings such as choosing locations with no distractions are reflected by Gray (1998), Wright et al. (2016) and considered by Scattone et al. (2006). However, the current study offers further insights into professionals' approaches to resolving such problems. These include using physical and verbal redirection techniques or choosing different times and locations.

In the quantitative data, the combined percentage of 76.11% (46.5% agreed and 29.6% strongly agreed) show that most participants believed that motivation is important for individuals to become engaged with Social Stories. This finding reflect what Saeed and Zyngier (2012) concluded, which was that "motivation is seen as a prerequisite of and a necessary element for student engagement in learning" (p.252). However, some interviewees interpreted motivation in other contexts. For example, focus group (1) pointed out that motivation is important for children with autism to help them sustain their interest and engagement with difficult subjects like social situations. Focus group (2) also talked about motivation in terms of increasing interest because children with autism might lose interest in the medium of Social Stories if they use them a lot. Some interviewees mentioned a relationship between

motivation and retaining the message of the Social Stories. One interviewee talked about motivation, engagement and attention as interconnected factors that could help learners with autism to remember Social Stories. Another interviewee linked location with motivation and engagement, stating that when children with autism feel comfortable and motivated by being in a specific place, this factor might increase their interest to engage with Social Stories. The data offered a greater understanding of the different effects that motivation could have when learning Social Stories.

One interviewee considered the level of motivation surrounding the topic of Social Stories. Other interviewees discussed different ways of working creatively to motivate children on the autism spectrum. For example, one interviewee talked about using music and involving children in the creation of their Stories by searching for pictures on the Internet. Another interviewee included patches with different textures into a Social Story. He/she believed that this motivated one boy to physically engage with the Story by increasing his interest in knowing what the following textures would be. This finding supports Gray's (1998) argument that "creatively customizing how information is presented may increase a student's motivation to attend to a Social Story" (p.180). One interviewee used a reward system, and said that it helped children to remain seated, focused for longer and increases their engagement. The use of rewards with Social Stories as motivator was also reported by Asiago (2019). Another interviewee drew on other ways, such as communicating in a more exciting voice, look more enthusiastic and using verbal praise.

The use of pictures is suggested by Gray's (1998) as "a Social Story may contain references to a student's favorite character, animal, sport, figure or setting" (p.180). The study found that some interviewees talked about using different types of picture as a motivator. Two interviewees linked the use of superimposed pictures of children's faces on top of figures with motivation and another two interviewees also linked it with engagement. One interviewee mentioned that using a superhero character motivated a child to continue reading the Social Story and to show it to different people. Another interviewee gave an example of using a picture of a swimming pool as a

background for a Social Story about a boy who does not like taking the bus. He/she believed that this encouraged positive behavior by motivating the boy to get on the bus to go to the pool. He/she gave another example of using a picture of a trampoline as a background for a Social Story, and seeing the visual made a child with autism excited. The interviewee also talked about using children pictures as motivators because they enjoy seeing themselves smiling or reacting positively. These findings are in line with Ozdemir (2008), who argued that adapting pictures linked with each participant's interest were an important factor in motivating them.

One interviewee mentioned that a possible reason for Social Stories being ineffective with particular children is due to a lack of self-motivation (intrinsic) or sufficient motivating content (extrinsic) to understand the Story. Previous studies also talked about the lack of motivating content (Samuels and Stansfield, 2011) and low self-motivation (Crozier and Tincani, 2007) as one of the possible factors that lead to limited success of intervention using Social Stories. Bledsoe et al. (2003) also suggested that a participant's self-motivation could be an important factor leading to a successful outcome.

In the quantitative data, the combined results of 87.4% (55.3% agreed and 32.1% strongly agreed) showed that the majority of participants concluded that engaging with Social Stories can help individuals to create change in their own lives. Focus group (1) discussed the relationship between engagement, time and change. They argued that it takes time to change understanding or behaviour, and this requires considering how much time children need to engage with an experience before it is fully comprehended. One interviewee stressed the importance of considering the engagement levels of autistic children and the time they might take to engage with an inactive task. Another interviewee referred to the benefits of reviewing Social Stories on memory, understanding and practice. One interviewee repeated the Social Story to help children with autism to become familiar with its content because most of them found it hard to cope with change. These findings offer insights into particular aspects of time, frequency, understanding and the development of change.

One of the reasons that might lead Social Stories to become ineffective, according to one interviewee, was not reviewing them for long enough. This finding supports those by Crozier and Tincani (2007) as well as Samuels and Stansfield (2011) on the importance of engaging more frequently with Social Stories to develop and maintain change. Crozier and Tincani (2007) showed that during the maintenance phase, two of the participants were unable to remember what they learned. This led them to suggest that “children should reread Social Stories at regular intervals in order to continue to benefit from their desired effects” (p.1812). This indicates that more frequent repetition of Social Stories could encourage and support children with autism to maintain the effect of the intervention. Samuels and Stansfield (2011) identified links between how many times Social Stories were reviewed and comprehension as a possible factor that might lead participants not to maintain the intended changes. Time is therefore an important factor when considering how long autistic children need to use, engage with Social Stories, understand and retain the message.

Two interviewees stated that decisions on how many times Social Stories are repeated are made based on the individual student’s needs and the topic of the Story. However, another interviewee linked the frequency of using Social Stories with age – for example, Stories might be used less frequently for older students. These findings agreed with Gray (1998), who stated that “the review schedule is dependent on the topic of the Social Story” (p.182), although my interviewees identified other factors such as age and individual needs.

One interviewee associated children engagement with Social Stories with different signs, for example sitting, looking and not appearing interested in doing something else. The interviewee also believed that if children tried to do something else when reading Stories, it showed that they were not engaged. This way of classifying engagement is based on behavioural signs. As Keen (2009) argues, “studies investigating the effects of specific instructional strategies have generally used behavioural definitions of engagement that take account of the individual’s ‘on-task’ behaviour” (p.131). Another interviewee used reflective stickers with a Social Story. The interviewee argued although the stickers engaged a girl with the Story this might not mean

that the girl engaged more with the actual content of the Story. This raises the issue of cognitive engagement and the need to assess the Social Story comprehension levels of autistic children.

The quantitative data indicated that a combination of percentages (50.3% who agreed and 27.7% who strongly agreed) shows that most of the participants believed that it is essential that individuals understand the content of Social Stories. Some interviewees who agreed with this statement linked understanding with developing change. For example, one interviewee argued that children needed to comprehend Social Stories in order to benefit from them. Another interviewee saw understanding as a necessary factor to making changes in children's own social behaviour. Two interviewees argued that if children with autism did not understand the content of the Stories, they would not be able to effectively develop change. One interviewee believed that if children did not comprehend the Stories, they would not know what actions to take in terms of their own social behaviour. The qualitative data offers insights into the responses of strong agreement. These results accord with those reported by teachers using Social Stories Asiago (2019) and obtained by Reynhout and Carter (2008) and (2007) who found that there might be possible links between children with autism understanding the Social Stories and having successful outcome and vice versa.

One interviewee talked about the importance of delivering a Social Story in a location that resembled its content. For example, he/she mentioned that if children with autism read a Story about swimming pool at home, they might find it difficult to make a connection and understand the Story. The use of pictures was also linked by some interviewees with supporting understanding. For example, focus group (1) and one interviewee linked the use of pictures with helping autistic children to become familiar with new places. The interviewee also argued that the use of visuals could help children with autism to interpret the text of the Stories. Two interviewees argued that they superimposed pictures of children faces, as this could have an effect in making them aware that the Social Stories are about them. It also could help autistic children to understand the Stories. This way of using children self-images to support comprehension was also used by (Aldawood, 2019).

Some interviewees talked about using different approaches to discover whether or not children with autism understand Social Stories (in terms of what they pay attention to in their assessment). For instance, some interviewees talked about observing changes in behaviour. Similar use of observation was mentioned by Asiago (2019), although teachers used it to evaluate the overall efficacy of the intervention. One interviewee's reason for using observation was linked to children's inability to communicate verbally. Another interviewee preferred to assess understanding through conversation. An alternative method used by some interviewees is comprehension questions; previous studies also used comprehension questions with Social Stories (Crozier and Tincani, 2007; Kassardjian et al., 2014; Reynhout and Carter, 2007; Reynhout and Carter, 2008). The qualitative data offered additional insights. For example, focus group (2) and some interviewees chose to ask children to answer simple questions about Social Stories. Another interviewee let a child write his questions in order to find out what part of the Story he did not understand. Another interviewee used questions with children who were able to communicate verbally. This suggests that children's ability might to some extent be determined by which method of assessment was used with them.

However, some interviewees responded that they do not use any method to evaluate children's understanding. One interviewee's reason for this was to do with children's inability to understand or answer questions because they are currently at a learning stage where they can only request, not answers. The interviewee also argued that it is difficult to question some children when it comes to conceptual areas. Another interviewee gave a different reason with regard to the nature of Social Stories, that they were there to deal with behavioural issues rather than academic learning. Reynhout and Carter (2008) state that the procedures for assessing comprehension are not mentioned in Gray's new guidelines of Social Stories. The absence of this procedure might impact some professionals' attitudes, to the extent where they would not evaluate the understanding of autistic children.

Some interviewees discussed the different signs shown by children with autism that they have understood Social Stories. For example, interviewees

refereed to a sense of engagement, with one interviewee talking about children showing their interest in Social Stories and engaging physically by looking at them. Another interviewee believed that a child familiarity with the content of Social Stories is another sign that they have understood them. One interviewee mentioned that if children answered Social Stories questions in their own words, rather than the words of the story. These findings offer insights into interpretation and professional understanding of what counts as indications that the Social Stories have been comprehended.

On the other hand, one interviewee mentioned that signs of not understanding Social Stories can be linked to disengagement with the Stories. Another interviewee argued that if children answered questions simply by repeating the same words from the Social Stories, they may just be remembering the words without understanding the content. Drawing on issues of echolalia and understanding, Mohanaprakash (2015) similarly argued that “although the child may be using sophisticated language with lengthy sentences, higher level vocabulary and advanced grammatical forms, the child often doesn’t understand the meaning of what he/she is repeating” (p.929). Another study by Schreibman and Carr (1978) also found that children who simply echo what the teacher is saying to them rather than giving an appropriate answer demonstrate that they are unable to comprehend the conversation or the analysis of it.

Another area that is also connected to understating and change is memory. In the quantitative data, 68.6% agreed and 18.9% strongly agreed that the majority of participants believed that remembering the content of Social Stories can help individuals to relate the Story to changes in their own lives. The interpretation of this strong agreement in part parallels the argument of one interviewee, who reported that one of the reasons that might render Social Stories ineffective was that children with autism did not retain the necessary information within the Stories. This finding is similar to those by Penton (2010), who argues that one possible factor that can impact on the success of intervention using Social Stories is linked to “the participant being able to comprehend the Social Story and remember its contents” (p.187).

The importance of remembering the Stories received mixed responses from some of the interviewees in focus group (2). One interviewee within the group argued that children need to remember the specific social activities taking place within Social Stories because the Stories themselves might not be physically available for them to read. Another interviewee from focus group (2) agreed with this but linked the subject of remembered information from Social Stories with children's own abilities. High attaining students need to remember the details of a form of social behaviour, while students with sensory problems would remember the general message because the teacher would support them by providing specific details. However, a further interviewee within focus group (2) disagreed with the importance of remembering, arguing that children would not need to memorize Social Stories which they draw together, because the Stories would be presented as a support, with the visual element reminding them about the appropriate behaviour. The qualitative data offered additional insights into the nature of the different viewpoints outlined above, as some of the interviewees within focus group (2) differentiated between when and what to remember and who should remember.

Some interviewees talked about different ways of helping children with their remembering. One interviewee believed that Social Stories containing enjoyable elements and engaging topics would be more beneficial to remembering. Another emphasized the role of interesting pictures to memorizing Social Stories. This interviewee offered an example of a Social Story based around the character of Spider-man to explain to a child about levels of voice to help him stop shouting and speaking too loudly in the classroom. The interviewee considered that a strong image helped the child remember the instruction and the behaviour outlined in the Story. One interviewee believed that if children liked the Social Story topic, they would remember details more clearly, but lack of motivation or interest would reduce the chance of remembering. Another emphasized the repetitive use of Social Stories to support memory but not concentration. One interviewee claimed that the best way of knowing whether autistic children remembered the message of Social Stories was through discussion or emulation; if they talked about or did things that they learned from the Stories. The qualitative

responses engaged with professionals' experience and their understanding of ways to support the remembering of Social Stories and exploring ways of finding out if children remembered the Stories.

Within the quantitative data, the 35.8% agreed and 33.3% strongly agreed that based on their experience, many participants believed that Social Stories were more effective for individuals when used alongside other intervention strategies. Focus group (1) and one interviewee agreed with this statement, and these findings support those of Asiago (2019), Alotaibi et al. (2016) and Dev (2014) who stated that some professionals found Social Stories more effective when paired with other strategies. Bozkurt and Vuran (2014) also analysed a number of studies on the use of Social Stories to teach social skills to children with autism. The authors found that the meta-analysis results of some studies showed that using Social Stories in tandem with other approaches were more effective than using Social Stories alone. The current study's findings add an understanding of professionals' reasons for using Social Stories with other approaches to the literature. Two interviewees considered that their reason for using other strategies in conjunction with Social Stories is because Stories are not a solution in their own, but they can help to gather social information and offer some ideas.

In conclusion, the integrated data offered deeper explanations that help to understand the way professionals' views the nature of Social Stories in relation to observational learning processes (attention, retention, motoric reproduction and motivation). The data also offered more insights into the way professionals perceive the relationship between the observational learning processes, particularly for individuals on the autism spectrum and specifically in terms of Social Stories. The study concludes that participants' ways of thinking and working with Social Stories underlines the principles of observational learning. For example, participants supported the importance of concentration and recognised it as a vital feature in understanding Social Stories. They also revealed that distractions could have multiple negative effects on the abilities of children with autism in terms of concentration, engagement, understanding and retention when using Social Stories. The study also found that participants agreed that understanding and

remembering Social Stories is an important factor that is strongly linked with acts of change. The results also showed that motivation is an important factor because of its various effects, including engagement, sustained interest and the retention of information within Social Stories. The data also offered insights into the way participants viewed the nature of change for autistic children when using Social Stories by drawing on the relationships between time, regular engagement, understanding and change.

5.3 Q2. What Are Professionals' Perspectives on The Nature of Using The Creative Arts for Individuals on The Autism Spectrum?

The second research question concerned professionals' views on the nature of using the creative arts for individuals on the autism spectrum. The quantitative and the qualitative data showed some similarities, although there were also subtle differences between them, which strengthened the overall findings of the study. The qualitative data also offered further insights into the quantitative data.

This research argues that multiple intelligences theory can offer insights into the role of the creative arts when working with individuals on the autism spectrum. The quantitative data showed that most of the participants agreed on the proposed benefits of the creative arts in relation to individuals with autism. This strong level of agreement was manifested in the way participants talked about the impact of some of the creative arts media, linking them with multimodal forms of learning. As suggested by Gardner (2006), art activities can be integrated within all multiple intelligence domains. As far as participants' practices are concerned, there was group recognition of the way the creative arts can contribute to the development of children with autism. This shaped the way participants taught autistic children by considering their interest and learning strength, which aligned with the premise of multiple intelligences theory. The integrated data is discussed in greater depth in the next section.

In quantitative terms, 56.0% agreed and 12.6% strongly agreed that participating in the creative arts in general could help individuals to represent social experiences and render them more understandable. The strong agreement was further emphasized by the specific use of drama; focus group (2) considered that when children with autism are role-playing or using characters, they are representing the things they have learned in a social context. This way of working aligns with a study by Hough and Hough (2012), who argue that "information is taken in, absorbed and encoded through more access points with drama-infused education than learning through receiving information by single methodology" (p.456). Godfrey and Haythorne (2013)

further stated that teachers and parents both believe that using drama therapy programmes for children and young people with autism helped them obtain a better understanding of friendship.

One interviewee also talked about the benefits of playing games with autistic children in which actions involving different activities like touching heads, wiggling hips or turning around were copied. The interviewee's aim was to help children with autism to understand and practice communication skills through interacting with each other and observing other children's actions and copying them. This finding offers more understanding of the way in which games that involve movements and imitation are used to support the understanding of social behaviour.

The qualitative data provided other examples of using the creative arts to help with understanding various learning subjects. Focus group (2) stated that replacing language with music or art would render information more understandable. This finding emphasises the role of using different aspects of the creative arts to support understanding. Martin (2008), for example, argues that drawing can provide a way of helping children on the autism spectrum to understand the environment around them. One interviewee talked about the use of songs when reading a Story to help children with autism learn words. Another stated that music could support language development and expressive abilities for children with learning difficulties. Another interviewee argued that a boy's understanding of numbers and numerical concepts was enhanced when songs were used. The interviewee also created a song with the boy about the different Docklands Light Railway (DLR) stops with a mathematical focus. The interviewee said that the boy would say the name of the DLR stops and the instructor would ask him about the amount of money he needed to top up his Oyster card and the boy would answer. A similar use of songs and jingles is discussed by Riggs (2013) in order to teach autistic children daily activities such as brushing their teeth or taking a bath. These findings draw on examples from professionals' practices in which music is used in teaching subjects to support understanding.

The qualitative data offered helpful explanations about the nature of the creative arts and why they can support understanding. One interviewee believed that when the creative arts are used, the brain becomes engaged in multisensory learning, which would help children with autism to process information more deeply. This means that artistic activities can be incorporated into all multiple intelligence domains (Gardner, 2006) because they are linked to different regions of the brain (Rosier, 2010). Specifically, when drama therapy is used, Tricomi and Gallo-Lopez (2012) argue that it engages individuals in “multimodal experience: moving, talking, seeing, hearing and thinking simultaneously” (p.274). This perspective is also linked to music making, as Wan et al. (2010) state that making music is “mediated by sensory, motor and multimodal integrative regions distributed throughout the brain” (p.287). This way of visualising links between using the creative arts and engaging different areas of the brain also draws on the theoretical concept of multiple intelligences theory.

Within the quantitative data, 54.7% agreed and 28.9% strongly agreed that participating in the creative arts in general can enable individuals to communicate without using words. In line with this finding, Eren (2015) referred to the use of music as a non-verbal communication strategy. Eren (2015) also pointed out that children with autism can use music as a non-verbal form of expression to overcome their difficulties with using verbal communication. This shows that using music can offer autistic individuals another way of communicating with others. One interviewee argued that creative arts such as drawing could be used as a medium of self-expression when a child may not be able to communicate verbally. This view is also discussed in the literature. Emery (2004) indicates that drawing, as a nonverbal expression, can be used as a way of enabling children with autism to communicate their experiences. Meanwhile, a study by Round et al. (2017) found that when art was used with two boys on the autism spectrum, it enabled them to communicate thoughts and feelings that they could not express verbally.

In quantitative terms, 54.1% agreed and 21.4% strongly agreed that participating in the creative arts in general can encourage individuals to

develop imaginative thinking. One interviewee stressed the importance of using the creative arts with children in general – not just those on the spectrum – to develop their imagination. Another interviewee gave an example of a boy who behaved and played in an imaginative way by bringing an imaginary key to open a locked door when playing in an arts installation. The interviewee considered the impact of the arts on the boy's actions to be useful as the boy did not usually behave in an imaginative way. His usual responses were typified as being very logical and anxiety driven. This study's findings link the use of the creative arts with imagination, and the literature supports this when art and drama are used. For instance, Ross (1978) states "image-making keeps the imagination alive" (p.37). Kempe and Tissot (2012) also found that drama enabled two girls on the autism spectrum to develop better imaginative skills. However, this study provides additional insight into the relationship between the creative arts, space and the imagination through an illustrative example.

In quantitative terms, 52.8% agreed and 28.9% strongly agreed that participating in the creative arts in general can help individuals to express their feelings. The qualitative data provides similar perspectives. For example, some interviewees highlighted the usefulness of the creative arts in helping children with their self-expression. One interviewee mentioned that using the creative arts could help with expressing, handling and regulating feelings. The literature shows similar findings to this study. For example, DiNardo (2017) stated that a teacher reported that when some children with autism engaged in artistic activities, it helped them to express themselves through the different artistic media they had engaged with.

Another interviewee was able to understand the emotions of pupils on the spectrum when they drew themselves as well as how they were feeling, because drawing provided the interviewee with more information compared to using language alone. This finding is similar to those of Duncan (2013), who argues that the use of drawing can help us get to know autistic children more successfully than written text or conversation. The interviewee offered examples of two boys who used drawing to express their feelings. The first boy said that he felt as if he had a volcano in his chest, and used specific

colors to draw some parts of the body, including hands and hearts, to express his feelings. The interviewee also stated that another boy drew diagrams and related his emotions to wind. He said for instance that when he was feeling calm there was no wind, when he was feeling anxious there is light breeze, but when he was angry it felt like a hurricane was blowing. These examples demonstrated the benefit of drawing in helping children to express their feelings. The literature refers to similar effects using different visual media. For example, Round et al. (2017) stated that painting helped one child with autism to express his sadness. The impact of using the visual arts – as Regev and Snir (2013) discovered when interviewing ten art therapists – is “related to the creative dimension as a realm that enabled communication and self-expression” (p.254) for autistic children.

Within the qualitative data, some interviewees discussed the benefits of using drama for children with autism as a way to express, learn or deal with emotions. One interviewee also believed that some children with autism would talk about their emotions through role-playing a character compared with being asked directly about their feelings. This finding is similar to that of O’Leary (2013), who argued that different projections – such as masks, puppets and role-play – can provide a way to help children with autism to communicate indirectly when they find it difficult to express themselves directly.

Within the quantitative data, 49.1% agreed and 15.7% strongly agreed that participating in the creative arts in general can help individuals to communicate the understanding of their experiences. One interviewee discussed the idea of writing a song using a call-and-response template, leaving gaps for the child to fill in. The interviewee designed a song about the Docklands Light Railway (DLR), leaving gaps for a boy to say his name and surname. The interviewee said that the process was helpful to discover whether the boy had learned his full name. This use of songs with gaps for children to fill in is also discussed by Christie et al. (2009) and Hannah (2001) when teaching vocabulary to students with autism. This study also found that designing songs with specific formats is not only useful in helping children

with autism to communicate their understanding, but can also be used as a way to assess comprehension.

The use of visual arts is another example discussed by one interviewee. He/she said that children with autism were asked to create a bird using collage techniques by requesting coloured feathers using adjectives. The interviewee believed that this activity helped support and assess children's understanding of colours, saying that if a child requested a blue feather but took a yellow one, this would show that he did not understand the differences between colours and needed to be taught them again. This finding sheds additional light on the practice of using collage as a way of helping autistic children to communicate their understanding of a subject.

In the quantitative data, 49.1% agreed and 21.4% strongly agreed that participating in the creative arts in general could help reduce individuals' levels of stress. This finding is similar to that of Rosier (2010) who argued that artistic activities in general are considered to be enjoyable experiences, and this enjoyment can lead to an improvement in mood and a reduction in stress. The qualitative data provided additional insight into the way music can help with reducing stress for children with autism. For example, focus group (2) indicated that music could have an effect on the mood of autistic children. One interviewee mentioned that when some children with autism become distressed, a member of staff singing a song or putting on a song for them to listen to would help them calm down. The interviewee also talked about a boy who becomes calm when he listened and sang his favorite songs from the film *Frozen*. Another interviewee talked about a girl with autism who joined in with music therapy sessions to help her to deal with anger problems. The interviewee stated that when the girl banged the drum it helped her to release anger. These findings are similar to those by Trevarthen (2002), who believed that the use of music with individuals on the autism spectrum can lead to reduction in stress levels.

Within the quantitative data, 47.2% agreed and 17.6% strongly agreed that participating in the creative arts in general can increase individuals' motivation to learn. The qualitative data offered more insights into why the creative arts

can motivate children with autism to learn. One interviewee argued that the creative arts are motivating for autistic children because there is no right or wrong in what they produce. The interviewee explained that children with autism can be creative in their drawings without being worried about perfection, unlike language and mathematics where they could be corrected if they said a word in the wrong way or produced the wrong answer. This way of thinking is similar to Sherrill and Cox's (1979) argument that participating in the creative arts can be a valuable experience for children with special needs because every response is appreciated. Another interviewee mentioned that art lessons can also be used as motivator to calm autistic children when they are unsettled, and that children will pay attention for longer periods in art lessons. This example draws on a link between using the creative arts as a motivational approach, increasing interest and reducing inappropriate behaviour.

The interviewee also believed that because children were motivated by an activity that involved creating a bird using a coloured collage, this helped them learn the use of adjectives through requesting different coloured feathers. Koegel et al. (2010) found that with children on the autism spectrum "incorporating motivational components in academic tasks resulted in faster completion rates, decreased disruptive behavior, and improved interest" (p.1065). This finding of this study is similar to that of Koegel et al. (2010) in terms of the way the researchers talked about a relationship between motivation, an increase in positive behaviour or engagement and a reduction in disengagement. However, this study also discussed the use visual art activity like collage as a motivational approach to support learning.

Within the qualitative data, one interviewee also talked about songs as a motivational tool that could be used to attract the attention of children with autism when learning mathematics. The interviewee said that if a teacher brings out a box full of shapes, not all of the students would focus on that action. However, if while bringing out the box like sang "What's in the box, what's in the box?" everyone in the class would start singing because the song motivated the pupils and attracted their attention to the lesson. This view is in line with Kolko et al. (1980) who suggested that autistic children are more

responsive to musical stimuli compared to visual stimuli. Kolko et al's study pointed out that "a preference for certain forms of sensory stimulation might suggest which contingent consequences would enhance motivation during formal instruction" (p.269). This helps to understand why it is important to know what stimulates and motivates children with autism to learn. Another interviewee used a clip called "Five a Day", which is about five minutes of exercise that involves music and two people modeling exercise moves along with verbal instructions. The interviewee used this activity as a way of assessing comprehension and independence because all the children liked the clip and were motivated by it. This way of working gives more consideration to the interests of autistic children when choosing an activity as a way of promoting their engagement.

Drama is another medium connected to motivation that is mentioned within the qualitative data. Focus group (1) stated that getting autistic children involved in acting that can be recorded might be a form of motivation for them because they could watch their performances afterwards. One interviewee also said that drama helped many secondary students learn English and construct sentences because they were motivated to role-play someone else's role. These findings reflect those of Hough and Hough (2012), who argued that "drama may be used as a motivational component to keep children actively involved in their studies" (p.456). This suggests that pairing drama activities with learning tasks could provide a motivation for children with autism to learn. The qualitative data also drew on being in a creative artistic space and feeling motivated. One interviewee talked about an arts installation with a scientific focus as a motivational space where autistic children were inspired and excited to participate in activities. This finding offers insights into the relationship between being in a creative arts space, motivation and children with autism. Beadle-Brown et al. (2018) also found that when using a "multi-sensory pod", autistic children were excited to take part and enter the pod.

In quantitative terms, 47.8% of respondents agreed and 16.4% strongly agreed that participating in the creative arts in general can enable individuals to communicate because they stimulate and encourage verbal

communication. Focus group (2) reported similar results when music was used in the form of songs and singing. Focus group (1) commented that when a teacher sang a song that autistic children knew, they would complete the rest of the song if the teacher stopped singing. Another example given by one interviewee concerned a boy who found it difficult to communicate verbally or to join in conversations, but joined the group and sang the words correctly when the class was singing. The findings of this study reported similar effects to those cited by Lim (2010), who found that the speech functions of children with autism improved when they received music training. Lim's explanations for this effect might be related to the "inherent structure of music stimuli and the intact capacity of pattern perception and production in children with ASD" (p.23). The qualitative data also suggest that children with autism were generally interested in music, and increased their active participation and confidence to verbalize words by singing the song clearly and correctly.

Within the qualitative data, two interviewees also referred to art installations as spaces that encouraged verbal communication. One interviewee gave an example of an anxious child who starts to verbalize as a result of being in a place that involved music, dance, role-play and many props. An almost identical effect was discovered when autistic children were involved in an intervention. Finlayson (2015) found that when using dance movements and art forms like music, drawing, and sculpting, participants showed varying degrees of improvement in areas such as communication, listening skills and verbal skills. Another interviewee also mentioned some activities in the art installation that involved opposite responses like saying "push" and replying "pull" encouraged children with autism to talk when they usually did not communicate in that way because they are very enthusiastic to hear the replies. This form of play draws on Van Volkenburg's (2015) argument that drama is a useful strategy to develop the communication skills of children with autism "because students feel confident to speak and free of pressures which are often inherent in ^[1] a more traditional learning environment" (p.14). However, the findings of the current study suggest that being in a creative space that involved arts activities and children excitement in talking part in them could be factors that stimulated verbal communication.

Within the quantitative data, 46.5% agreed and 13.8% strongly agreed that participating in the creative arts in general enhances individuals' ability to remember information. The qualitative data helped to understand why the creative arts could support memory. For example, focus group (1) identified the process of retaining information in the long-term memory instead of the short-term or working memory. Rosier (2010) linked artistic activities with certain parts of the brain, arguing that although creating a drawing involves short-term memory, linking a visual object to an idea involves long-term memory. One interviewee also mentioned that when autistic children are engaged in enjoyable activities like the creative arts, their interest and motivation increase. As a result, the interviewee believed that information was more likely to be remembered because pleasing and motivating experiences are usually processed more deeply in the brain. Another interviewee noted that drawing and other forms of artistic creativity could help children with autism to remember information in general. The interviewee's reasons for this were based on a combination of the impact of the medium and the nature of personal engagement. These findings are similar to those of Alexander (2012), who believed that art activities like creating symbols and signs could help children with autism to remember information and to apply it appropriately. However, these study findings suggest that it is not only the nature of the creative arts that support memory, but also their links with factors like motivation and enjoyment.

Within the qualitative data, focus group (1) also mentioned that drama could support remembering because of the link between physical involvement and physical memory. The literature supports the idea of links between embodiment and memory. Tricomi and Gallo-Lopez (2012) considered that drama therapy is beneficial for children with autism because it involves "a body-brain connection" (pp.276-277). It could therefore be argued that drama activities could enhance memory and attention. Sherratt and Peter (2012) also stated that visual props used within drama activities may serve as visual reminders to help autistic children remember the experience they learned later in life. This shows that the nature of drama and the way it involves the use of multimodal stimuli can help children with autism to remember information.

As far as the use of music is concerned, focus group (2) stated that listening to songs could support memory functions because associating specific songs with certain activities could help autistic children to remember what they have to do. One interviewee gave an example of a boy who could not remember how to count to ten but had memorized a song that counted to one hundred. The interviewee also stressed the role of motivation as a key factor in supporting memory. The positive effect of using music in learning is also mentioned by Riggs (2013), who argues that when children sing songs they tend to remember the concepts embodied within them.

Another interviewee mentioned that when doing the “Five a Day” activity which involved dance and music, children with autism would remember the dance movements and the lyrics of the song. Some interviewees gave different reasons for why music or dance movements are remembered. For example, focus group (2) argued that sometimes children rock to the rhythm of a song because they have retained the body memory of it. This also demonstrated the ways in which way some autistic children reacted to musical stimuli by rocking to meet their sensory needs. As Wilkes (2005) argues, people on the autism spectrum can be hypersensitive and they need to move in order to feel more balanced. One interviewee also offered an example in which children with autism remembered a number rhyme like “three-four, shut the door” because they associated the beat with the number. Another interviewee argued that music could support remembering information because it consists of more simple patterns and repetition compared to language. This connection between sound patterns and memory can be of significance for children with autism. Ricks and Wing (1975) argue that “the autistic person’s high level of ability to remember simple patterns rather than meanings allows them to enjoy repetitive experiences” (p.2016). This means that children’s interest in repeated patterns could account for why music is remembered more easily.

In the quantitative data, 44.0% agreed and 23.3% strongly agreed that participating in the creative arts in general could help reduce individuals’ levels of anxiety. This agreement reflects Finlayson’s (2015) finding that the use of dance movement and other art forms such as music, drawing and

sculpting lead to a reduction in anxiety levels among participants. One interviewee talked about a boy whose anxiety levels were reduced to a level at which he was able to deal with certain situations after engaging in drama therapy sessions. This finding is parallel to those of Godfrey and Haythorne (2013), stating that teachers and parents reported that the structured content of drama therapy sessions led to a reduction in anxiety and improved confidence among children and young people on the autism spectrum. Tricomi and Gallo-Lopez (2012) also argued that the use of role-play can enable children with autism to release their anxiety.

As far as the use of drawing was concerned, one interviewee mentioned that a secondary individual with autism drew comic characters and wrote down some sentences, which helped regulate his/her emotions and deal with anxiety. Another interviewee indicated that the cortisol levels of children on the autism spectrum increased in the afternoon, and as a result they become more anxious. The interviewee commented that visual arts activities like painting and drawing were used with autistic children to reduce challenging behaviour, and that as a result the interviewee found that they were calmer and their behaviour was less problematic. This practice is also considered advantageous within the literature. For example, Lasry (2010) believes that involving children with autism in artistic activities can be useful in reducing levels of anxiety. This study findings offer different examples of the way in which the creative arts are used to deal with the issue of anxiety.

In summary, this study has shown that participants generally believed that the use of the creative arts was beneficial for autistic individuals in different areas. The creative arts can be used in variety of ways in the education of children with autism to assist them with learning subjects and managing their behaviour. One interesting finding was that the use of the arts installation supports children with autism, helping them to explore and interact with different stimuli. This in turn offers more opportunities for autistic children to learn, develop creativity and interact with others. The use of a stimulating environment offers another dimension to the importance of surrounding children on the autism spectrum with creative aspects to strengthen and develop their capabilities.

5.4 Q.3 What Are Professionals' Perspectives on The Impact of Using Social Stories in Conjunction With The Creative Arts for Individuals on The autism Spectrum?

The third research question concerned the perspectives of professionals on the impact of using Social Stories in conjunction with the creative arts for individuals on the autism spectrum. The quantitative data offered a general understanding of professionals' views and this again was supported by more detailed findings from the qualitative data. Integrating the data creates stronger links and a stronger sense of meaning between the quantitative and qualitative data, which enables us to examine similarities and differences in viewpoints and attitudes.

This study explored the nature of Social Stories under (Q1) and the nature of the creative arts under (Q2) separately, drawing on the social learning and multiple intelligences theories. The research findings offered a great deal of information that could be used to anticipate the ways in which the integration of Social Stories with the creative arts as a framework could be beneficial for individuals on the autism spectrum. In question 3, further examination at a larger scale focused on exploring the impact of using Social Stories with the creative arts, and findings showed a broad level of agreement between participants. The qualitative data provided additional insights into participants' observed and anticipated impacts, benefits and limitations when Social Stories are paired with the creative arts. The integrated data will be discussed further in the next section.

In quantitative terms, 52.2% agreed and 5.7% strongly agreed that using Social Stories with the creative arts enables individuals to communicate their understanding of the Story more easily. A deeper explanation was offered by one interviewee, who believed that the creative arts could have an impact on two forms of communication: a) receptive – how children understand what is being said in Social Stories – and b) expressive – providing a response through singing or playing musical instruments. The use of drawing is another example; focus group (2) reported that it enabled one teacher to work out that a girl with autism did not understand the meaning of the behaviour within the

Social Story. The findings provide insights into how creative arts such as music and drawing can be used as a means of communication when paired with Social Stories. Communicating understanding using drama was also discussed by focus group (2), which reported that if autistic children were able to act out parts from Social Stories in their own way, showing that they had understood and were interpreting the Story. This finding is similar to that of Haggerty et al. (2005), who argued that using a puppet storytelling with puppets offered more opportunities for a non-autistic boy who displayed challenging behaviour to talk and discussed an example in which the boy had been frustrated with a situation and how he had used coping strategies mentioned in the Social Story.

Some interviewees talked about assessment and Social Stories with the creative arts. For instance, two interviewees would assess children's understanding of Social Stories by observing their engagement and responses to aspects of the creative arts. Additionally, one of the interviewees used comprehension questions. Another interviewee argued that drawing might be the best artform to use. The interviewee believed it might be more difficult using drama or music, as the media were gone once the performance had been completed, whereas drawings remain and can be shown and discussed in group sessions. These findings offer examples of professionals' methods of assessing children within the context of using the creative arts in conjunction with Social Stories. The data also showed concerns relating to the nature of some types of the creative arts as an assessment tool.

In quantitative terms, 52.2% of respondents agreed and 11.9% strongly agreed that using Social Stories with the creative arts helps to motivate individuals to engage with the Story. Focus group (1) and one interviewee commented that many autistic children are motivated by different art forms, including drawing, and that it would be useful to link their interests in art with Social Stories. This led focus group (1) and two interviewees to argue that children with autism might engage more with Social Stories when the creative arts are used, compared with using written Stories alone. One interviewee also believed that when the creative arts are used, they could sustain the interest of autistic children and their motivation to review Social Stories many

times because they might not feel bored compared with just reading the Stories. This finding is similar to those by Haggerty et al. (2005), who concluded that sometimes the non-autistic boy they were studying looked uninterested with the Story book but the additional use of apron storytelling with puppets “renewed his energy and interest in it” (p.43).

Another impact of motivation is linked with memory. Focus group (2) and one interviewee indicated that if children with autism are motivated by the creative arts then there is a higher chance that the information within Social Stories will be remembered. This relationship is supported by an example from focus group (2), that the tune of a motivating song *The Wheels on the Bus* was used with a Social Story to help children with autism recall the Story. Attention is another aspect associated with motivation, with one interviewee arguing that the creative arts would help motivate and then hold children attention when delivering Social Stories. These findings suggest that the creative arts as a motivational tool might lead to improved impacts such as increasing and sustaining engagement over a period of time. The data also draw on relationships between motivation, attention and memory.

In the designing stage of Social Stories, focus group (2) talked about how children with autism could be motivated, for instance by taking photos and adding them to their Stories. This suggestion provides an example of one of the ways in which photography might be used as motivational technique.

In the quantitative data, 50.3% agreed and 8.8% strongly agreed that using Social Stories with the creative arts can increase an individual’s ability to remember the Story content. This sentiment was confirmed by one interviewee who saw this way of working as very useful way supporting memory. However, another interviewee expressed some doubt, stating that using the creative arts might not guarantee that Social Stories would be retained to any greater extent in the long-term memory.

The qualitative data provide examples and explanations that help to expand on the relationship between using the creative arts and memory. Focus group (1) gave an example that compares using Social Stories with and without the creative arts in terms of remembering information. Focus group (1) stated that

the multi-sensory impact of sound and vision, together with the overall emotional experience makes it easier to remember a film compared with imagining the abstract images obtained from reading a book. Focus group (2) argued that drawing could support remembering Social Stories because of the impact of the medium and the nature of personal engagement. Music is another area of the arts that one interviewee linked with memory because remembering a tune or song can help children with autism to remember Social Stories. This finding is similar to that of Brownell (2002), who examined the effect of musical Social Stories and found that a participant “would spontaneously sing portions of the information contained within the Social Story” (p.141). This study’s findings support the idea that the creative arts as a medium stimulates different sensory areas, all of which support memory to different extents.

In the quantitative data, 50.3% agreed and 5.0% strongly agreed that using Social Stories with the creative arts will improve individuals’ ability to perform the content of the Story. Previous studies by Brownell (2002) and Fees et al. (2014) found that using Social Stories with music brings about a positive change. A relationship between the creative arts and change was also noticed by one of the interviewees in focus group (1), although the interviewee said that change is difficult to predict despite our knowledge of children experiences in using the creative arts. The interviewee pointed out that each child with autism represents a unique case. However, another member of focus group (1) and a further interviewee stated that using drama with Social Stories is useful because it give autistic children an opportunity to practice different forms of social behaviour, such as sharing, in a structured environment. The interviewee also argued that the practice of role-play leads to more apparent change in behaviour for reasons to do with motivation, engagement and remembering. These findings are similar to those of Dinon (2013) and Chan and O'Reilly (2008), who found that participants developed behavioural changes when Social Stories were used with role-play. However, this study offers more explanation about the reasons for supporting children with autism to develop change when using role-play, such as offering additional practice and providing a safe and less challenging environment in

which to practice their social skills. The data also suggest relationships between change, motivation, engagement and memory. A link between drawing and change was reported by one interviewee, where a child who draws many pictures during Social Stories has maintained the intended changes over a period of time. This finding suggests that pairing drawing activities with Social Stories might support children with autism to develop necessary changes.

In quantitative terms, 49.1% agreed and 8.8% strongly agreed that using Social Stories with the creative arts can help improve individuals' ability to understand the Story. One interviewee mentioned that when the tune of a familiar song is used with a Social Story, children with autism can develop better understanding of a wider vocabulary. This finding draws on the potential impact of using music with Social Stories to help teach content such as vocabulary and language. Another interviewee proposed that when writing musical Social Stories, leaving gaps for autistic children to complete the words might help them with understanding how they should behave in certain situations. The interviewee said for example that with a Social Story about bus, children with autism replied by saying things like "sitting still", which might help teach them to understand how they need to behave on a bus. However, different reasons are suggested by Fees et al. (2014) for leaving blank sections in musical Social Stories, specifically that teachers or students might want to suggest words to add in order to make the Story relevant to different situations. One interviewee referred to a Social Story about using an appropriate voice level and suggested that role-playing could support a pupil's understanding. These findings suggest different examples of using the creative arts as a way to help autistic children to understand the message of Social Stories.

In the quantitative data, 45.3% agreed and 7.5% strongly agreed show that using Social Stories with the creative arts can encourage effective communication between teachers and students. This finding is similar to Brownell's (2002) argument that the use of music with Social Stories may "increase cooperation during the intervention" (p.125). Focus group (2) offered an example in which drawing was used as means of communication between

an instructor and a girl. The group found that the use of drawing helped show that the girl did not understand the meaning of the word “calm”. This finding offers an example of how drawing can be used in Social Stories to encourage effective communication between a professional and a child with autism.

Meanwhile, 41.5% agreed and 6.9% strongly agreed that using Social Stories with the creative arts can help individuals to concentrate. This more moderate level of agreement (less than 50%) was reflected by the view of focus group (2). Brownell (2002) argues that that using music with Social Stories might increase the concentration levels of students with autism. However, 1.9% disagreed and 0.6% strongly disagreed about Social Stories and concentration, which means that there were some participants who rejected the idea that using Social Stories with the creative arts improved concentration. As an explanation for this view, focus group (2) and one interviewee argued is that using role-play might distract the attention of children with autism from the actual message of Social Stories because they get over excited and become too involved in the role play, losing sight of the Social Story and its message. Another interviewee believed that the creative arts might provide a distraction for autistic children that might distract their understanding from the Social Story message. In response to these arguments, one interviewee suggested setting some restrictions for children with autism when drawing is used with Social Stories to prevent them from becoming distracted. The interviewee’s suggestion represented a way of dealing with the sensory differences that some autistic children experience, as Wilkes (2005) argues that they can be hypersensitive and find it difficult to stop during an activity. These findings suggest that using the creative arts with Social Stories might be useful but could also be challenging in terms of attention and concentration unless they are strictly monitored.

Looking more closely at the quantitative results for Question 3, the percentages of the joint agreement between agree and strongly agreed compared with undecided were slightly closer to each other in most of the other questions on the questionnaire. Part of the reason behind this could be because participants did not have a sufficiently strong opinion to be able to rate the items on a scale. Another reason may relate to some of the

participants' lack of experience in using Social Stories with the creative arts. These reasons were highlighted by one participant who commented: "I don't know because I have never seen a Social Story that uses the creative arts" (INin#Participant-5). This can help to understand why a considerable number of participants elected to remain undecided in their responses.

To conclude, the study helps to understand professionals' views, attitudes and concerns regarding the impact of integrating Social Stories with the creative arts. It also offers insights into the potential impacts this integrated approach can have on autistic individuals and the ways in which this would help to support the implementation Social Stories. The integrated data showed that the use of the creative arts could offer more opportunities for individuals with autism to benefit from Social Stories because of the various impacts they can have in areas such as concentration, motivation, understanding and remembering.

5.5 Q.4 How Do Professionals Approach The Use of Social Stories With The Creative Arts for Individuals on The Autism Spectrum?

The fourth research question concentrated on the approaches professionals take when using Social Stories with the creative arts for individuals on the autism spectrum. The quantitative and the qualitative findings are brought together in this section to create a dialog between them and improve the meaning of the results.

The integration of Bandura's social learning and Gardner's multiple intelligences theories was further explored by gathering additional data on the way professionals use Social Stories with the creative arts for individuals on the autism spectrum. The integrated data showed that Social Stories were used with the creative arts for various reasons, implemented in many ways and were intended to help develop different impacts. Table (5.2) provides examples from participants' extracts to illustrate how participants' ways of working with Social Stories and the creative arts could be connected to Bandura's and Gardner's theories.

Table 5.2 An illustration of the use of Social Stories with the creative arts, drawing on social learning and multiple intelligences theories

Observational learning stages	Multiple intelligences types linked with observational learning stages	Examples from participants' extracts
Attention	Visual-spatial intelligence, attention and engagement	The use of drawing as "a way of engaging them in the Story if they are not paying attention" (Dlin-2#Participant-2).
	Visual-spatial intelligence, attention and ownership	Drawing "helps maintain the attention of the child and they are able to refer to it as the work belongs to them (DI-1#Participant-1).
Retention	Visual-spatial intelligence, interest and memory	"One child really loves drawing, so it is clearer to him than the written word what is going on...and then it is a Story that he can take away to remember" (Dlin-1#Participant-1).
	Bodily-kinesthetic intelligence, attractive, engagement and retention	The use of drama makes Social Stories "more appealing and memorable to the child" (DI-3#Participant-2) because "if it is appealing they engage with it better, and if it is memorable they will integrate it better" (Dlin-3#Participant-2).
Reproduction	Visual-spatial intelligence and developing change	The immediate effects of using Social Stories with drawing, such as the "child is able to understand the upset and is calming down (approximately 1 hour afterwards)" (DI-1#Participant-1).
Motivation	Musical intelligence, interest and engagement	"This particular girl really loves singing... [to] engage her" (Dlin-1#Participant-1).

This study finding suggest that the participants' ways of working with Social Stories and creative modalities like drama, music and drawing could be also linked with Bandura's (1977) classification of physical, verbal and symbolic modelling. For example, engaging with symbolic modeling when reading Social Stories and using the creative arts as additional support "serves as an important memory aid. People who mentally rehearse or actually perform

modeled patterns of behaviour are less likely to forget them” (Bandura, 1977, p.7). The use of different forms of modeling supported the participants’ ways of thinking and working within the context of Social Stories with the creative arts. Gardner (2006) argues that the arts might be a suitable medium to accommodate and cover individuals’ intellectual domains. This was reflected in the participants’ practices when Social Stories were used the creative arts as a way of supporting the learning styles and types of intelligence of individuals with autism.

By associating the exploration of professionals’ understanding of the way they view and use Social Stories with social learning and multiple intelligences theories, I hope to provide a feasible framework to guide professionals in developing a more effective use of Social Stories with the creative arts.

The following paragraphs examine the answers given to the sub-questions. The first one concerned the type of the creative arts that is used with Social Stories. The quantitative data showed that different kinds of creative art are used with Social Stories, and that most of the participants (41.7%) used visual art. In the qualitative data, participants reported similar approaches including puppetry and creative storytelling with sound and games. Previous research focused upon using Social Stories with music (Brownell, 2002; Fees et al., 2014; Iliff, 2011; Pasiali, 2004), role-play (Chan and O’Reilly, 2008; Dinon, 2013) and drawing (Penton, 2010). However, this study widens the rich diversity of Social Stories with other modalities such as dance, puppetry and creative storytelling with sound, sand play, games and cooking.

The second sub question concerned professionals’ intentions and what they intend the impact of Social Stories to be when working with the creative arts. The quantitative data shows that participants used Social Stories for a variety of different meanings and purposes ranging from teaching social skills (17.9%) to others like reducing anxiety (2.4%) (see results chapter). The qualitative data identified intentions similar to the ones identified in the quantitative data. These findings are similar to those of Fees et al. (2014), Dinon (2013), Iliff (2011), Penton (2010) Chan and O’Reilly (2008), Pasiali (2004) and Brownell (2002) who showed that Social Stories with drama or

music or drawing are used to address a similar range of intentions. However, this study found that some participants reported a wider range of intended impacts, including increased creativity, the explanation of concepts, introducing changes and new routines, social expectations, as well as addressing health and safety issues.

The third sub question looked at the purposes of using the creative arts when working with Social Stories. Previous research shows a variety of reasons for using Social Stories with music, such as helping with recalling the information in the Story (Brownell, 2002; Iliff, 2011), increasing attention, encouraging repetition of the Stories and student involvement (Brownell, 2002). Drama can be used to act out the skills involved in the Social Story (Dinon, 2013). Similar reasons were identified within the data of this study, and linked with other types of creative art. Respondents in the quantitative data indicated that they would use the creative arts because children on the autism spectrum enjoy and prefer using the creative arts over other strategies. Other reasons, such as increasing a sense of ownership of the Social Stories, supporting understanding, explaining parts of the Stories that had not been fully understood, practicing social interaction in a safe and less socially challenging environment, encouraging behavioural self-awareness, supporting relational play, encouraging engagement and recapping a scene to make sure it is fully understood.

The qualitative data reported similar findings to those in the quantitative data and the wider literature. The data also showed the range of possibilities between different artistic processes, for example participant (2) used the creative arts more generally to attract and retain attention and support creative thinking. Additionally, for reasons to do with the nature of the Stories as they sometimes “can feel too instructive, fail to grab the attention of the client and be less memorable and relational” (DI-2#Participant-2). Participant (1) used music to encourage engagement, and would also use drawing to support independence, promote self-expression and self-regulation. Participant (2) also talked about using drawing to encourage engagement and to explain difficult or more complex aspects of the Story. Participant (2) also

used drama to support generalization. These findings provide additional insights into various reasons for using the creative arts with Social Stories.

The qualitative data provide additional insights. For example, participant (2) argued that knowing what type of creative art children preferred and using it in conjunction with Social Stories would improve engagement, attention and remembering. Participant (2) disagreed with the assumption that autistic children might not like using creative arts materials with Social Stories, and they may not become engaged with the Stories or get distracted from them. Participant (2) gave an example of how to make Social Stories more creative by challenging the way emotional messages are used at the end of the Story, perhaps by arguing against the idea that “a child [would] do everything to make other people happy” (Dlin#Participant-2). This led participant (2) to suggest making the endings of Social Stories more creative and relevant by talking about shared feelings because some children will have their own interpretation of concepts like happiness. Participant (2) also said that this practice would be useful “to actually express in a relational way with a child what happy is to show and share and that is memorable for them” (Dlin#Participant-2).

The fourth and fifth sub questions looked at when and how the creative arts are used with Social Stories. The quantitative data showed that 46.2% of participants used the creative arts during Social Stories, while some 23.1% of participants also used them before and after. Participants also indicated that they used the creative arts with Social Stories in different ways, ranging from role-playing to modelling the whole Social Story (15.0%), and to using dance movements to interpret Social Stories (3.3%) (see results chapter). These approaches to working with the creative arts can be interpreted as being used with Social Stories at any time (before, during or after).

The qualitative data offers examples of when and how the creative arts are used with Social Stories. For instance, before using Social Stories, participant (1) gained more information about a child by doing a participatory drawing or playing music before moving to drawing Social Stories with the child. This finding is similar to those of Penton (2010) in the way participants draw

pictures of desired behaviour and include them in their Social Stories. However, this study shows that the act of drawing is done cooperatively. Another example of the way in which the creative arts were used before Social Stories was told by participant (2), who would collect information about children with autism by interacting with and observing them in a playful way for a couple of sessions. Participant (2) also talked about the potential benefits of using photography to involve a child in designing a Social Story about school activities. The findings of the current study show that the creative arts are used alongside other means to help participants to gain information about children with autism prior to working on Social Stories. The data also explains the role of photography as way of involving children in the design process of Social Stories.

The following section concerns participants' ways of using the creative arts during the use of Social Stories. For example, the way music is used within the quantitative data shows that some participants (8.3%) use songs to sing the Social Stories or change the lyrics of a well-known song to reflect some parts of the Social Story content. A smaller number of participants (3.3%) used background music with Social Stories. Previous research also involved composing original music for Social Stories (Brownell, 2002), Social Stories set to the familiar song tune *Piggyback* (Fees et al., 2014; Iliff, 2011; Pasioli, 2004). However, within the qualitative data participant (2) talked about using music in different ways by including musical instruments like drums to make the rhythm of a heartbeat, rain and walking steps to engage children with Social Stories. Participant (2) would also sing specific words from the Story, and believed this supported remembering. Another approach is singing parts of the Story, for example by like incorporating a song at the end.

In terms of using drama, the quantitative data shows that some participants used role-play to model the whole Story or some scenes from it (15.0%) or improvise elements from the Story (6.7%). Participant (2) described the process of using role-play by first reading the Story in a dramatic way using speech, facial expressions and gestures. Next, he/she would act out the Story with children by alternating different characters. Participant (2) also talked about incorporating positive and negative responses within a play, highlighting

different reasons for including negative responses, such as to engage children with Social Stories, to mirror behaviour and to support remembering a word that would highlight a specific behaviour. These findings were similar to those of Dinon (2013) and Chan and O'Reilly (2008) in role-playing Social Stories. However, the current study findings differed in terms of procedure, in which Social Stories were read in a dramatised way and children's negative responses were included within the play.

Participant (2) argued that unlike Social Stories that describe situations role-play might enable communication and self-expression like how a child feels about an emotion within the Story. He/she also believed that the use of role-play with Social Stories could help explain social emotions because children can watch the instructor or therapist by playing different roles, and that this in turn would support understanding. Participant (2) also argued that the role-played scenario of the Stories might be more memorable than using the text alone.

Participant (2) talked about supporting differentiation and generalisation through using drama for example, with a Social Story about sharing by using a sand timer at school. He/she would enact a scenario like "this does not quite work if you go to the park...with mummy and daddy...they do not have a timer [to control] what are you going to do there" (Dlin-2#Participant-2). These findings provided this study with specific information relating to the use of drama with Social Stories.

Participant (2) started by reading Social Stories or acting from the Stories even if children were engaged in other activities, because they were usually listening and would participate when they wanted to join in. He/she did not want to put more pressure on children with autism because things like eye contact or the level of engagement that might be expected from them can be quite distressing or intimidating for children with autism. Participant (2) also stated that if he/she used drama with Social Stories for children who were nonverbal, he/she would act out most of the Stories. These findings demonstrate the ways in which professionals consider autistic children when using Social Stories with drama.

The way drawing is used shows that some participants would draw entire Social Stories (10.0%) and some would draw scenes from the Stories (11.7%). Similar use is mentioned by Penton (2010), where participants' drawings of some scenes were included in their Social Stories. Participant (1) gave a fuller explanation of the way drawing was used by using Social Stories consisting of drawn pictures connected with arrows, speech bubbles and a written sentence under each picture. Participant (1) believed that involving some children with autism in the drawing of mapped Social Stories could help them visualise the content and remember the message. It might also provide a way of helping children to think while drawing "what is going to happen" (Dlin-1#Participant-1) in the next part of the Story. Participant (1) also talked about a child with autism who produced a collection of drawings of Social Stories about different emotions.

However, participant (2) used drawing in different ways, such as incorporating aspects that were not mentioned in the Stories themselves to elaborate on or emphasise some of its contents. For example, participant (2) would draw human figures when talking about parts of the body and facial expressions to explain emotions. Participant (2) also asked children with autism to draw how they felt when something happened. He/she would consider children's interest in vehicles, for example, and draw a train track or a road where they could join in and draw a train or a car and then they start talking about road or rail journeys as a way to elaborate on the Stories. However, participant (2) argued that asking some autistic children to draw could be an issue because of their literal understanding of drawing. As result, participant (2) sometimes drew the pictures to help the children feel more comfortable and to keep them interested in the Story and the practice. These findings were similar to those of a study by Alessandrini et al. (2014) in the use of drawing with Social Stories. The authors mentioned that a centre for educating children with autism used "drawing activity as a framework to present and discuss a Social Story" (p.424). Alessandrini et al's (2014) study aimed to examine the effectiveness of a prototype, and within this investigation a "therapist created a short Social Story by drawing a scene on each blank sheet. To speed up the scene-drawing process, the therapist drew almost all the scenes, and the

child was only marginally involved” (p.428). The findings of the current study provide additional examples of the way drawing is used with Social Stories.

Within the quantitative data, some participants (10.0%) reported that they would produce games and use improvisation with Social Stories. The qualitative data offers more insights into the nature of this relationship. For example, a game called “Simon Says” was mentioned by participant (2), who would use it to interact with autistic children, to mirror things for them and as a break when they were not engaged with Social Stories. Participant (2) used this game by incorporating aspects from the Story into the game. If at the end of the Story the children were asked to smile, participant (2) would say “Simon said let us have a big smile.” Participant (2) also stated that sounds could be incorporated into the game, for example by saying “Simon says tap your feet” and encouraging children to make a sound by tapping their feet. These findings help to understand the way in which games can be used with Social Stories.

The quantitative data shows that a small number (5.0%) of participants used dance movements to depict scenes or entire Social Stories (3.3%). However, the qualitative data did not provide any further information on how this method is used, because the diary participants had no direct experience of using it. Additionally, only a handful of professionals who answered the question about what type of the creative arts they used selected dance (8.3%), and none of them expanded on this in the qualitative study.

The qualitative data offered much more information on how different types of creative art are used with Social Stories. For example, participant (1) used drawing, songs and role-play to reinforce a Social Story about regulating emotions. Participant (2) gave an example in which the discussion of a Story might include drawing, acting and sounds to emphasise certain physical feelings and emotional experiences. These findings offer additional insights into the ways in which professionals put various types of creative art together when using Social Stories with children on the autism spectrum.

The qualitative data offer insights into themes that are found within the use of the creative arts after the Social Stories have been told. For instance,

participant (1) talked about assessing comprehension by summarising the main points of the Story afterwards through drawing, associating the practice with key words. He/she then reviewed the key points with children and asked them to say what they had learned from the Stories. Participant (2) talked about different techniques for assessment, such as asking questions about the Stories that could be answered verbally or through drawing or acting. Participant (2) also discovered whether or not Social Stories had been understood by observing children actions and speech when interacting with them in play. Another way that participant (2) identified was the idea of exploring similar ideas through enactment. If children with autism incorporated aspects from their Social Stories into their play, this could be taken as a sign that they had understood the Story. These findings are similar to those of Gray and Garand (1993), who suggested that comprehension could be assessed by role-play, using approaches such as asking a student “to show what he or she will do the next time the situation occurs” (p.6). Studies by Dinon (2013) and Chan and O'Reilly (2008), in which role-play is used after reading Social Stories for autistic children to help them practice social skills and monitor their actions. However, this study suggests that drawing represents another way that can be used to assess children comprehension of Social Stories.

The sixth sub question looked at how professionals delivered Social Stories in conjunction with the creative arts. The quantitative data showed that many of the participants (42.9%) considered that teachers and other professionals such as art therapists or anyone with knowledge or experience or interest in Social Stories and the creative arts, with peers and people with special needs, support staff, therapists and teaching assistants could be involved in the delivery of the Stories. The qualitative data showed similar results, and the findings are similar to previous studies which showed that teachers, therapists or researchers, children on the autism spectrum (Alessandrini et al., 2014; Brownell, 2002; Chan and O'Reilly, 2008; Dinon, 2013; Pasiali, 2004; Penton, 2010) and adults (Chan and O'Reilly, 2008) were involved in the design or delivery of Social Stories with music, role-play or drawing.

However, the qualitative data offered more insights into the roles and responsibilities of professionals and children with autism when Social Stories are used in conjunction with the creative arts. For example, the professionals' role is to make sure that autistic children understand the reasons and implications of their behaviours or emotions. Other roles are to observe children with autism to assess their needs, to design an individualised Social Story, to engage children in the Story and to make sure that the contents of the Story are fully understood. The role of professionals is also to help children with autism to understand circumstances in which a Social Story message might not be relevant to apply in other situations and to support generalization. Autistic Children are seen as facilitators by taking part in writing and drawing Social Stories to help themselves understand their own issues. They should also be actively engaging with the arts activities to explore the content of Social Stories. Other roles include understanding the messages of the Social Stories, integrating what they understand from the Stories when the creative arts are used and being able to generalise what they have learned to other situations.

The seventh sub question concerned equipment used in delivering Social Stories with the creative arts. The quantitative data indicated that over one third of the participants (36.4%, the largest category) used puppets. Similar use is reported by Azkiya (2019) and Haggerty et al. (2005) but not with autism. The qualitative data showed that additional equipment – for example, musical instruments such as drums – is used. Previous studies also used musical instruments such as shaker eggs, maracas (Pasiali, 2004) and a guitar (Brownell, 2002; Pasiali, 2004).

The eighth sub question asked whether professionals noticed any effects when using Social Stories with the creative arts. In terms of the quantitative data, most participants noticed positive effects like increased interest, engagement, understanding, different approaches to confrontation and becoming more settled into a new school building. Participant (2) talked about similar effects on engagement and understanding. Participant (1) reported other effects of using drawing with Social Stories, such as maintaining attention, understanding, increased ownership and improved behaviour. The

finding about the effect of including participants drawings in Social Stories on increasing ownership is similar to that of Penton (2010), where TAs reported, “the thing that seemed to capture his interest was that it was his drawing and it was about him....but even seeing that front page [the symbol of a chair]... he really made it his own” (p.180). Participants (2) talked about the effects of using drama with Social Stories on increasing interest and remembering. Participants (1) and (2) also talked about the nature of change when using Social Stories with the creative arts, viewing it in terms of children becoming more flexible reflecting on their actions and generalising from their Stories.

Part (a) of the eighth sub question concerned maintenance. The quantitative data showed that half of the participants considered that changes were maintained when using Social Stories with the creative arts. These changes, according to some participants (22.2%) were maintained for 1-3 months and in some cases for more than 9 months. Chan and O'Reilly (2008) also found that participants' behaviour was maintained for up to 10 months when role-play is used in conjunction with Social Stories. Within the quantitative data the following examples were given: one student had no further issues with the new building and no desire to return to the old building. Another example indicated that changes were maintained but not without occasional instances of regression, but a participant was more concerned with growing capabilities, awareness, experience and behaviour continuing. Children with autism also were able to draw and find their own route for coping with different strategies on a “map”. Additional examples about maintenance were discovered within the qualitative data. When drawing was used with Social Stories, participant (1) concluded that one boy's behaviour was maintained because the boy waved and looked much calmer when he/she saw him around the school. Participant (2) believed that there was a relationship between understanding and behaviour maintenance. This relationship is also illustrated by participant (1), who used Social Stories with different types of the creative arts to regulate the emotions of a girl with autism. When participant (1) asked teaching assistants few days later about the girl, they reported that the way she behaved when they asked her to be calm made it appear that she understood. Participant (2) talked about ways of supporting the maintenance of

understanding, for example by engaging children in positive experiences when dealing with challenging behaviour. He/she also said that it was easier if the Stories were not complicated and did not contradict children fixed ideas. Participant (2) also referred to other practices to support maintenance such as appreciating and praising children achievements, reviewing the Stories many times using the creative arts, or using additional Stories in the same way.

Part (b) of the eighth sub question concerned generalization. The quantitative data shows that over half of the participants indicated that they did not know if changes were becoming more generalised when using Social Stories with the creative arts. This finding was confirmed by participant (1). However, within the quantitative data some participants (22.2%) noticed that children attempted generalisation. The following examples were given: one child was able to adapt the approach to different contexts, but not all. Another child was happy to move to other classrooms. That view was also reported by participant (2), who believed that children can generalise, but it depends on the topics of the Stories. Time is another factor; participant (2) indicated that measuring and assessing degrees of generalisation takes several months of exploring Social Story topics in different ways and reviewing the Story often. However, participant (2) argued that unsupportive parents who do not follow the Story might prevent their children from being able to generalise successfully. These findings suggest that generalisation can be achieved when using the creative arts with Social Stories, and the data also drew on other aspects to consider when planning for generalisation.

A relationship between the creative arts and generalisation is argued by participant (2), who states that creative practices would engage children imagination compared with using Stories alone. The reason why participant (2) supported differentiation and generalisation using the creative arts with Social Stories was to reduce the chances of autistic children of finding themselves in a situation they do not know how to deal with, because usually experiencing new things increase their anxiety. The way participant (2) supported generalisation when using drama with Social Stories would be by role-playing different scenarios, arguing that it helped limit the dependency of children with autism on the need for Social Stories to cover every situation.

Through the process of differentiation, participant (2) mentioned that autistic children are encouraged to examine the environment around them and to think creatively. For example, participant (2) would support creative thinking by reminding children with autism about the creative solutions that they come up with to cope with specific situations. The qualitative findings offer more insights into the reasons and the use of role-play to support generalisation within the context of Social Stories.

Participant (2) stated that professionals' need to consider the information they include in Social Stories carefully, because children who prefer routines can become very attached to specific details and attempt to generalise them to every situation. For example, participant (2) talked about a Social Story about sharing using a timer at school and how a child on the autism spectrum might expect to use a timer in every situation, such as when being in the playground with their parents. Within a therapeutic context, participant (2) talked about how he/she would deal with children frustration with the generalisation process, such as generalising on irrelevant contexts. Participant (2) would talk with children and help them realise that there isn't a single rule that they could apply to everything, supporting that viewpoint with examples they are familiar with. These findings provide recommendations on the issue of generalisation when working with Social Stories.

The ninth sub question concerned professionals' views on the possible effects of using Social Stories with the creative arts. The quantitative data showed that half the participants viewed the overall process as quite effective and over one third of them (38.9%) viewed it as very effective. As far as the use of drawing with Social Stories was concerned, participant (1) believed that this approach has been more effective with children who are verbal and more cognitively able because they can express and understand the way they feel. This finding provides subjective evidence on the effects of using Social Stories with other types of the creative arts, such as drawing.

The tenth sub question concerned professionals' experience of any difficulties that cropped up when using creative arts with Social Stories. In quantitative terms, over half of the participants (61.1%) stated that they did not experience

any problems when using Social Stories with the creative arts. However, some participants (27.8%) admitted to facing difficulties. Some children did not like the Story emotionally; sometimes they lacked motivation for Social Stories and the creative arts because they were immersed in other activities or items; Sometimes children can get overstimulated. Another issue that might occurred according to participant (2) was that the actual meaning of a Social Story may become diluted when stretching the situation to explore different situations through the creative arts, especially if professionals do not remain clear about the focus of the Story. For example, when using role-play with Social Stories, participant (2) argued that if professionals were not well prepared with suitable responses when playing different scenarios, which can make the Story's message unclear or overcomplicated for children with autism. These findings addressed some of the challenges that might be experienced when using Social Stories with the creative arts.

The findings of the mixed-methods study provide a clearer picture of the way professionals approach the use of Social Stories with the creative arts for autistic children, and the data shed light on the different creative arts modalities professionals use alongside Social Stories. It also revealed various reasons and ways for using the creative arts that could be useful in supporting the implementation of Social Stories at different stages. Additionally, participants' illustrative examples of using combined methods help to understand how engaging children with autism in a multimodal learning can be beneficial, for example in developing behavioural change.

5.6 Summary of the Research Findings

This section provides a summary of the results of the four research questions, which examined professionals' perspectives in relation to Social Stories, the creative arts and the impact of integrating the two. It also looks at the ways in which professionals use Social Stories in conjunction with the creative arts in everyday practice when working with individuals on the autism spectrum.

5.6.1 The First Research Question

Concerned the professionals' perspectives on the nature of using Social Stories for individuals on the autism spectrum. The integrated data provided in depth explanations of the professionals' views on the nature of Social Stories and their approaches to their work in relation to Bandura's theory of learning through observation. The quantitative findings offered a high degree of recognition of the importance of the observational learning stages of attention, retention, reproduction and motivation and their interrelationship when using Social Stories for individuals with autism. There was little differentiation within the data about the level of importance. Most of the participants agreed strongly, but on the relationship between distraction and understanding they offered only moderate agreement.

In the qualitative findings, participants' explanations of using Social Stories shows that they are aware of the need to consider each of the four stages. Within the data, the observational learning stages were discussed in relation to the use of Social Stories for children on the autism spectrum. In particular, the study findings showed that concentration is recognised as a vital feature in understanding Social Stories. Some participants gave more nuanced interpretations of the nature of concentration and communicating understanding for children on the autism spectrum within the context of Social Stories. The data also revealed that there were different views on exactly what constitutes signs of concentration. For example, sitting still and looking at the Stories or seemingly opposite actions like moving while processing information through listening. The study also reported various ways of encouraging concentration, such as meeting sensory needs, matching the length of the Stories with children capacity to concentrate and using motivating pictures or songs. The study also found that distractions could have multiple negative effects on autistic children to concentrate, engage, understand and remember when the Social Stories are used. The data also identified various practices that could be used when delivering Social Stories to deal with distractions, such considering quiet locations and using verbal and physical redirection techniques.

Another area that the data explored was related to the importance of children with autism understanding the message of the Social Stories used and whether it was a key to developing change. The study identified specific ways of working that were emphasised by participants to ascertain how autistic children understood the Stories, namely observation, conversation and questions. The study findings also revealed the signs that can be considered as an evidence of children with autism understanding Social Stories, such as showing a sense of engagement; being familiar with the content of the Stories and children using their own words that differ from the text of the Stories to answer questions. In contrast, there were other signs that were considered as not understanding the Story, such as disengagement and answering by repeating the same words that were used in the text of the Stories by the facilitator.

The study found that remembering Social Stories is an important factor linked with developing change. The study also revealed some diversity in participants' views concerning **when** and **what** to remember as well as **who** should remember in relation to Social Stories and children with autism. The study highlighted different approaches that were used to support the remembering of information within Social Stories, such as including interesting pictures, engaging topics and reviewing the Stories. The study also found that discussion or emulation was considered as positive approaches to assess remembering.

The results showed that motivation is an important factor in the observational learning stages because of its various impacts, such as its influence on engagement and the retention of information within Social Stories. Another impact the data showed is linked with sustaining interest and engagement when the Story's content deals with difficult topics like managing social situations. Additionally, the data stresses the specific importance of motivation in relation to engagement and attention, seeing these as interrelated factors that can support remembering the Stories. The study also highlighted different methods of motivating autistic children such as using pictures, including music, instigating a reward system, offering stickers and patches, verbal praise and involving children in the creation of their own Stories. The study

showed that some emphasised that the lack of self-motivation and motivating content were perceived as factors that could limit or prevent the success of Social Stories.

The data offered insights into the relationship between time, regular engagement and the development of change. It also highlighted the specific benefits of reviewing Social Stories on memory, understanding and practice. The data revealed that the needs of children with autism, their age and the topic of the Story determined how many times Social Stories were reviewed. The study also revealed that signs of engagement with Social Stories for children with autism were linked to physical engagement such as sitting, looking and not appearing interested in doing something else.

5.6.2 The Second Research Question

Looked at professionals' views on the nature of using the creative arts for individuals on the autism spectrum. The quantitative findings revealed a high level of agreement that the creative arts can be beneficial for individuals with autism in areas linked with motivation, understanding, memory, communication, imagination and feelings. Although most of the participants' responses appeared to agree with the benefits offered by the creative arts, there were different levels of agreement within the data. The qualitative information also provided more insights into the nature of the creative arts in supporting these areas. The study showed that the creative arts could support the representation of social experiences, rendering them more comprehensible. Specific examples were offered regarding the use of drama and acting games. As well as supporting social experiences, the use of music and songs helps with understanding different subjects in terms of learning words and mathematical concepts. The study also showed that the creative arts were perceived to support understating because of the way they engage the brain in multisensory learning. Another potential benefit that was found is linked with enabling children to communicate without using words. Drawing, for example, was believed to be a useful medium of self-expression – especially for children who find verbal communication challenging.

The study showed that participating in the creative arts generally could encourage the development of imaginative thinking. It provides additional insight into the relationship between the creative arts, space and the imagination through an illustrative example. The data also showed that participating in the creative arts could assist with expressing, handling and regulating feelings. For instance, drawing as a medium to help autistic students to express their feelings, providing another possible avenue for teachers to understand the emotions of children with autism through visual representation. The study found that the creative arts could be used as a way of communicating the understanding of experiences. For example, music, songs and collage were used to support the learning process by offering ways for students with autism to communicate their understanding and for teachers to assess their levels of understanding. The data also showed that using the creative arts could help with reducing stress levels, and drew on examples of using music for children on the autism spectrum.

The data revealed another potential advantage of participating in the creative arts linked to increasing children's motivation to learn. An explanation of this was linked to the non-confrontational nature of art activities, in which every response or production is valued, and not corrected. The data also revealed a relationship between using art lessons as a motivational approach, increasing interest and reducing inappropriate behaviour. It also gave examples of the use of collage and role-play as a motivational approach that increases engagement and supports learning. Another thing the study revealed was a connection between the use of songs as a motivational tool and attracting attention when teaching mathematics for autistic children. The data also drew on being in a creative artistic space like an art installation and feeling motivated to participate in the activities being offered.

The study showed that the creative arts were perceived to enable children to communicate because they stimulate and encourage verbal communication. Examples and incidences of this were reported when songs and singing were used and children with autism being in a creative space like an arts installation. In terms of remembering, the study showed that the creative arts could enhance children's ability to remember, because information is retained

in the long-term memory as a result of positive responses to the experiences they engaged with. Additionally, specific types of the creative arts such as drawing, drama and music were considered to support the act of remembering for various reasons linked to the nature of the mediums. The study also reported other possible benefits of participating in the creative arts that was linked with reducing anxiety and stress levels. Specific examples were discussed in terms of the use of music, drama therapy and visual arts activities.

5.6.3 The Third Research Question

Concerned the perspectives of professionals on the impact of using Social Stories in conjunction with the creative arts for individuals on the autism spectrum. The quantitative findings showed that participants agreed to a moderate degree that integrating Social Stories with the creative arts could have an impact on concentration, understanding and remembering. They also help to communicate understanding and motivation, as well as performing an intended change and encouraging interaction between professionals and autistic individuals. The qualitative data offered further insights into these areas. The study reported that using the creative arts could enable children to communicate their understanding of Social Stories. This was viewed to have positive impacts on receptive and expressive communication. Different examples concerning the communication of understanding through the use of music, drawing and drama were offered. Drama was seen as also a form that could enable the communication of feelings and emotions within Social Stories. The data also revealed examples of participants' methods of assessment and concerns related to the nature of some types of the creative arts as an evaluation instrument.

The study also found that the creative arts supported motivation to engage with Social Stories, and showed examples of various impacts brought about by being motivated on increasing or sustaining attention, interest, engagement and supporting remembering. The data also offered an example of using photography as motivational technique to involve autistic children in

creating their own Social Stories. Another potential impact of using the creative arts was in terms of increasing individuals' ability to remember the given messages in the Social Stories. The majority of the participants supported this impact on memory, although one of them believed that this might not be guaranteed. Additional examples and explanations were offered regarding the relationship between using the creative arts with Social Stories and memory.

The study also found that the use of Social Stories with the creative arts was believed to improve individuals' ability to perform the content of the Story, although one participant noted that this impact might differ due to the uniqueness of each child within the autism spectrum. This impact was further explained through examples and explanations related to the use of drama and drawing activities. Another possible impact of using the creative arts was linked with improving children's ability to understand the given messages of Social Stories. Specific examples were provided concerning the use of music and drama, and the findings of the study showed that the use of Social Stories with the creative arts could encourage effective communication between teachers and students. Another potential impact of using the creative arts was linked to supporting concentration, but a number of participants disagreed with this impact because the creative arts might provide additional distraction for children with autism, preventing them from attending to and understanding Social Stories. A solution was suggested to overcome and limit this negative impact through setting certain restrictions.

5.6.4 The Fourth Research Question

Concentrated on the approaches professionals take when using Social Stories with the creative arts for individuals on the autism spectrum. The data revealed that music, visual art, drama and dance are used with Social Stories alongside other modalities, such as creative storytelling with sound, sand play, games and cooking. It also indicated that Social Stories and the creative arts are used for different intended impacts and purposes. The study also showed how the creative arts could be integrated before, during and after the

use of Social Stories in a variety of ways and for different purposes when working with children on the autism spectrum. Before using Social Stories, for example, drawing, music and role-play were used to obtain more information about a child. Another approach was to use drawing and photography to involve children in the design of Social Stories. The study also found that different types of creative art were used individually and together when using Social Stories for children on the autism spectrum. The data showed that after the Social Stories were told, drawing and role-play were used to assess comprehension.

The study also found that the delivery and implementation of Social Stories with the creative arts as a form of intervention involved a wide range of participants and equipment. When the combined method was used, the data showed that it produced positive effects on children with autism, and there was perceived evidence of maintenance and generalisation of the intended impacts. The findings revealed that the majority of the participants' did not experience any difficulties when using creative arts with Social Stories. However, some participants' reported difficulties that were linked with children's lack of motivation and interest and in some cases becoming overstimulated.

5.7 Research Limitations

There are some limitations associated with this research that are mainly related to the nature of the data and sample size. The first limitation concerned the way this study relied mainly on subjective responses. For example, the study explored professionals' views about the anticipated effects of using Social Stories with the creative arts rather than measured effect (Reynhout and Carter, 2009).

Another issue is related to section (B) of the questionnaire, which included questions about the nature of using the creative arts and the impact of using Social Stories with the creative arts. For these questions, it is difficult to know whether professionals' answers reflect all types of the creative arts offered by

the study or whether there responses were linked with specific types. It would be useful to examine professionals' perspectives on each type of the creative arts individually. However, this was not possible because the questionnaire already contained a great deal of questions and adding more might have prevented people from completing it. Instead, the study used qualitative methods (focus groups and individual interviews) to discover whether or not professionals have specific views related to any particular type of creative art.

Finally, although 159 participants completed section (B) of the questionnaire only 18 participants completed section C, which represents a low response rate. The reason for this low number of responses was mainly due to the nature of the questions, which required specific experience and knowledge of using Social Stories with the creative arts that might not have been relevant to all the professionals who took part in this study. This area was explored further using qualitative methods with two participants whose answers enriched the data significantly. However, a larger sample may have offered even more examples of practicing Social Stories with the creative arts.

5.8 The Research Contribution

The findings of this study have expanded our knowledge on different areas related to Social Stories and the use of Social Stories with the creative arts for individuals on the autism spectrum. The study's original contributions include an in depth understanding of how professionals view the nature of using Social Stories for individuals with autism and the mechanisms behind it through the lens of Bandura's social learning theory. This thesis also developed a novel theoretical framework about the use of Social Stories with the creative arts; a framework that draws on the integration of Bandura's social learning theory and Gardner's multiple intelligences theory. This framework was then used for the first time to investigate professionals' perspectives on the impact of using Social Stories with the creative arts for individuals on the autism spectrum. The framework was also used to examine another new area concerning the way professionals approach the use of

Social Stories with the creative arts for individuals on the autism spectrum in natural settings.

5.9 Recommendations for Future Research

Based on the findings of this study, I can suggest various ideas and directions for future research.

To investigate the impact of the proposed benefits of the creative arts when used with individuals on the autism spectrum that were found in this study. Exploring this at greater length would enable to examine whether there is an impact or a relationship between more detailed components such as attention/concentration, motivation, retaining/remembering and acquiring change when using Social Stories for individuals with autism. In addition, some professionals offered different examples of how they used the creative arts with children on the autism spectrum. Future research can look at these examples in more detail to examine their usefulness or to include them in teaching lessons or units.

Future research can also empirically examine the effectiveness of using Social Stories with different aspects of the creative arts that were referred to in this study and have not been examined within the literature such as dance. In addition, to reexamine the use of music and role-play and other dramatic techniques, which were examined by a limited number of studies, using some of the ideas mentioned in this study.

Some professionals offer different examples on how they used Social Stories with the creative arts in this area, and these examples can be used as starting points around which Social Stories can be designed in conjunction with the creative arts for future research in order to measure their efficacy. Further research could examine the effect of using Social Stories with the creative arts on the maintenance and generalisation of social or communication skills for autistic individuals.

References

- Abdulkader, F. A., Gundogdu, K., and Eissa, M. A. (2009). "The effectiveness of a multiple intelligences-based program on improving certain reading skills in 5th-year primary learning disabled students." *Electronic Journal of Research in Educational Psychology*, 7(3), 673-690.
- Agosta, E., Graetz, J. E., Mastropieri, M. A., and Scruggs, T. E. (2004). "Teacher—researcher partnerships to improve social behavior through Social Stories." *Intervention in School and Clinic*, 39(5), 276-287.
- Aldawood, N. A. (2019). *Special Education Teachers' Perceptions of Using the Best Practices of Video Modeling, Social Stories, and Peer Mediated Interventions to Teach Social Skills for Individuals with Autism Spectrum Disorder*, University of Northern Colorado.
- Alessandrini, A., Cappelletti, A., and Zancanaro, M. (2014). "Audio-augmented paper for therapy and educational intervention for children with autistic spectrum disorder." *International Journal of Human-Computer Studies*, 72(4), 422-430.
- Alexander, J. W. (2012). *Developing social skills through art in special education*, California State University.
- Alhojailan, M. I. (2012). "Thematic analysis: A critical review of its process and evaluation." *West East Journal of Social Sciences*, 1(1), 39-47.
- Allen, P. J., and Roberts, L. D. (2010). "The ethics of outsourcing online survey research." *International Journal of Technoethics (IJT)*, 1(3), 35-48.
- Alotaibi, F., Dimitriadi, Y., and Kemp, A. E. (2016). "Perceptions of teachers using social stories for children with autism at special schools in Saudi Arabia." *Journal of Education and Practice*, 7(11), 85-97.
- Alvord, M. K., and O'Leary, K. D. (1985). "Teaching children to share through stories." *Psychology in the Schools*, 22(3), 323-330.
- Amin, N. A., and Oweini, A. (2013). "SOCIAL COMPETENCE INTERVENTION IN AUTISTIC SPECTRUM DISORDERS (ASDS)-A CASE STUDY." *INTERNATIONAL JOURNAL OF SPECIAL EDUCATION*, 28(3), 104.
- Andrews, E. E., Forber-Pratt, A. J., Mona, L. R., Lund, E. M., Pilarski, C. R., and Balter, R. (2019). "# SaytheWord: A disability culture commentary on the erasure of "disability"." *Rehabilitation psychology*, 64(2), 111.
- Ansell, C. (2015). "Pragmatist Interpretivism", in M. Bevir and R. A. W. Rhodes, (eds.), *Routledge Handbook of Interpretive Political Science*. London: Routledge.
- Arain, M., Campbell, M. J., Cooper, C. L., and Lancaster, G. A. (2010). "What is a pilot or feasibility study? A review of current practice and editorial policy." *BMC medical research methodology*, 10(1), 67.
- Armstrong, T. (2009). *Multiple intelligences in the classroom*, USA: ASCD.
- Arnold, J., and Fonseca, M. C. (2004). "Multiple intelligence theory and foreign language learning: A brain-based perspective." *International journal of English studies*, 4(1), 119-136.
- Ary, D., Jacobs, L. C., Sorensen, C., and Walker, D. A. (2014). *Introduction to research in education*, Belmont, Calif: Wadsworth Cengage Learning.

- Asiago, R. (2019). *Special Education Teachers' Experiences With Social Stories to Decrease Negative Behaviors in Preschool Children With Autism*, Capella University.
- Association, A. P. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*: American Psychiatric Pub.
- Azkiya, N. R. (2019). *Puppet Social Story to improve social skills in children with down syndrome* University Of Muhammadiyah Malang.
- Azorín, J. M., and Cameron, R. (2010). "The application of mixed methods in organisational research: A literature review." *Electronic Journal of Business Research Methods*, 8(2), 95.
- Baldwin, A. (2014). *Putting the philosophy into PhD*. Working Papers in the Health Sciences 1 (10).
- Bandura, A. (1969). *Principles of behavior modification*, New York London: Holt, Rinehart and Winston.
- Bandura, A. (1974). *Psychological modeling : conflicting theories / edited by Albert Bandura*, New York: Lieber-Atherton.
- Bandura, A. (1977). *Social learning theory*, Englewood Cliffs, London: Prentice Hall.
- Barbour, R. S. (1998). "Mixing qualitative methods: quality assurance or qualitative quagmire?" *Qualitative health research*, 8(3), 352-361.
- Bath, B., Trask, C., McCrosky, J., and Lawson, J. (2014). "A biopsychosocial profile of adult Canadians with and without chronic back disorders: a population-based analysis of the 2009-2010 Canadian Community Health Surveys." *BioMed research international*, 2014.
- Batson, R. D. M. (2010). *Effects of an arts integration curriculum versus a non-arts integration curriculum on the school experiences of kindergarten through middle school students with autism*, Trevecca Nazarene University.
- Bawazir, R., and Jones, P. (2017). "A theoretical framework on using social stories with the creative arts for individuals on the autistic spectrum." *International Journal of Medical and Health Sciences*, 11(9), 533-541.
- Baxter, P., and Jack, S. (2008). "Qualitative case study methodology: Study design and implementation for novice researchers." *The qualitative report*, 13(4), 544-559.
- Beadle-Brown, J., Wilkinson, D., Richardson, L., Shaughnessy, N., Trimmingham, M., Leigh, J., Whelton, B., and Himmerich, J. (2018). "Imagining Autism: Feasibility of a drama-based intervention on the social, communicative and imaginative behaviour of children with autism." *Autism*, 22(8), 915-927.
- Beebe, L. H. (2007). "What can we learn from pilot studies?" *Perspectives in psychiatric care*, 43(4), 213-218.
- BERA, B. E. R. A. (2018). "Ethical Guidelines for Educational Research". City: London.
- Berman-Brown, T., and Saunders, M. (2008). *Dealing with statistics: What You Need to Know*, Maidenhead: McGraw-Hill Open University Press.
- Bledsoe, R., Smith, B., and Simpson, R. L. (2003). "Use of a social story intervention to improve mealtime skills of an adolescent with Asperger syndrome." *Autism*, 7(3), 289-295.
- Boone, H. N., and Boone, D. A. (2012). "Analyzing likert data." *Journal of extension*, 50(2), 1-5.

- Bovee, L. M. (2013). *Classroom Differentiation: Implementing Howard Gardner's Theory of Multiple Intelligences in the LD Classroom*, Texas State University.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*, Thousand Oaks, CA: SAGE.
- Bozkurt, S. S., and Vuran, S. (2014). "An Analysis of the Use of Social Stories in Teaching Social Skills to Children with Autism Spectrum Disorders." *Educational Sciences: Theory and Practice*, 14(5), 1875-1892.
- Bradshaw, E. A. (2011). "A rose by any other name: State criminality and the limits of social learning theory." *The Hilltop Review*, 5(1), 1-12.
- Braun, V., and Clarke, V. (2006). "Using thematic analysis in psychology." *Qualitative research in psychology*, 3(2), 77-101.
- Braun, V., and Clarke, V. (2012). "Thematic analysis", in H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, and K. Sher, (eds.), *APA handbooks in psychology®. APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biological*. Washington, DC, US: American Psychological Association, pp. 57-71.
- Breakey, C. (2006). *The autism spectrum and further education: A guide to good practice*: Jessica Kingsley Publishers.
- Bricout, J. C., Porterfield, S. L., Tracey, C. M., and Howard, M. O. (2004). "Linking models of disability for children with developmental disabilities." *Journal of Social Work in Disability & Rehabilitation*, 3(4), 45-67.
- Brownell, M. D. (2002). "Musically adapted social stories to modify behaviors in students with autism: Four case studies." *Journal of music therapy*, 39(2), 117-144.
- Bumiller, K. (2008). "Quirky citizens: Autism, gender, and reimagining disability." *Signs: Journal of Women in Culture and Society*, 33(4), 967-991.
- Burdick, C. L. (2014). "The merits, limitations, and modifications of applying Bandura's social learning theory to understanding African American children's exposure to violence." *American International Journal of Social Science*, 3(5), 183-190.
- Bury, S. M., Jellett, R., Spoor, J. R., and Hedley, D. (2020). "'It defines who I am' or 'It's something I have': What language do [autistic] Australian adults [on the autism spectrum] prefer?" *Journal of autism and developmental disorders*, 1-11.
- Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., and Neville, A. J. "The use of triangulation in qualitative research." *Presented at Oncology nursing forum*.
- Chan, J. M., and O'Reilly, M. F. (2008). "A Social Stories™ intervention package for students with autism in inclusive classroom settings." *Journal of applied behavior analysis*, 41(3), 405-409.
- Chandler, C. (2014). "What is the meaning of impact in relation to research and why does it matter? A view from inside academia", in P. Denicolo, (ed.), *Achieving impact in research*. London: SAGE, pp. 1-9.
- Cheng, Y., Salleh, A., and Jusoff, K. (2011). "Portrait drawings therapy: Windows of hope for children with autism spectrum disorder." *World*

- Applied Sciences Journal (Learning Innovation and Intervention for Diverse Learners)*, 14, 44-51.
- Christie, P., Newson, E., Prevezer, W., and Chandler, S. (2009). *First steps in intervention with your child with autism: Frameworks for communication*, London: Jessica Kingsley.
- Cohen, L., Manion, L., and Morrison, K. (2007). *Research methods in education*, London: Routledge.
- Commodari, E. (2017). "Novice readers: the role of focused, selective, distributed and alternating attention at the first year of the academic curriculum." *i-Perception*, 8(4), 1-18.
- Cowan, K. B. (2016). *The use of musically adapted social stories to build social skills in individuals with autism spectrum disorder*, Ball State University.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*, Thousand Oaks, Calif; London: SAGE.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*, Los Angeles; London SAGE.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*, Los Angeles; London: SAGE.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., and Hanson, W. E. (2003). "Advanced mixed methods research designs", in A. Tashakkori and C. Teddlie, (eds.), *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, Calif; London: SAGE.
- Crossan, F. (2003). "Research philosophy: towards an understanding." *Nurse Researcher (through 2013)*, 11(1), 46-55.
- Crozier, S., and Tincani, M. (2007). "Effects of social stories on prosocial behavior of preschool children with autism spectrum disorders." *Journal of autism and developmental disorders*, 37(9), 1803-1814.
- D'Amico, M., Lalonde, C., and Snow, S. (2015). "Evaluating the efficacy of drama therapy in teaching social skills to children with Autism Spectrum Disorders." *Drama Therapy Review*, 1(1), 21-39.
- Della Porta, D., and Keating, M. (2008). "How many approaches in the social sciences? An epistemological introduction", in D. Della Porta and M. Keating, (eds.), *Approaches and methodologies in the social sciences: A pluralist perspective*. New York: Cambridge University Press.
- Dellinger, A. B., and Leech, N. L. (2007). "Toward a unified validation framework in mixed methods research." *Journal of Mixed Methods Research*, 1(4), 309-332.
- DePoy, E., and Gitlin, L. N. (2015). *Introduction to research: Understanding and applying multiple strategies*, St Louis, Missouri: Elsevier.
- Dev, P. C. (2014). "Using social stories for students on the autism spectrum: Teacher perspectives." *Pastoral Care in Education*, 32(4), 284-294.
- Dew, N. (2007). "Abduction: a pre-condition for the intelligent design of strategy." *Journal of Business Strategy*, 28(4), 38-45.
- Dialsingh, I. (2008). "Face-to-Face Interviewing", in P. J. Lavrakas, (ed.), *Encyclopedia of Survey Research Methods*. Thousand Oaks SAGE.
- Dickerson, K. W. (2010). *Re-imagining identity: the arts and the child with autism spectrum disorder*, The University of Texas at Austin.

- Dilshad, R. M., and Latif, M. I. (2013). "Focus Group Interview as a Tool for Qualitative Research: An Analysis." *Pakistan Journal of Social Sciences (PJSS)*, 33(1).
- DiNardo, D. (2017). *Visual Art as Pedagogy for Autism: Exploring Educators use of Art Therapy Intervention in the Classroom for Students with Autism*, University of Toronto.
- Dinon, A. (2013). *Role Play And Social Stories: An Intervention For Increasing Verbal Initiations In Children With Autism*, the University of Central Florida.
- Dodd, S. (2005). *Understanding autism*, Edinburgh: Elsevier.
- Dowling, M., and Dolan, L. (2001). "Families with children with disabilities-inequalities and the social model." *Disability & Society*, 16(1), 21-35.
- Dragan, I.-M., and Isaic-Maniu, A. (2013). "Snowball sampling completion." *Journal of Studies in Social Sciences*, 5(2), 160-177.
- Drost, E. A. (2011). "Validity and reliability in social science research." *Education Research and perspectives*, 38(1), 105-124.
- Duncan, P. A. (2013). *Drawing as a method for accessing young children's perspectives in research*, University of Stirling.
- Edwards, L. C. (1990). *Affective development and the creative arts: A process approach to early childhood education*, Columbus, Ohio, London: Merrill.
- Elliott, H. (1997). "The use of diaries in sociological research on health experience." *Sociological Research Online*, 2(2), 1-11.
- Emery, M. J. (2004). "Art therapy as an intervention for autism." *Art Therapy: Journal of the American Art Therapy Association* 21(3), 143-147.
- Engle, L. (2011). "Pragmatism", in A. F. Kinney, (ed.), *The Oxford Handbook of Shakespeare*. Oxford University Press.
- Eren, B. (2015). "The use of music interventions to improve social skills in adolescents with autism spectrum disorders in integrated group music therapy sessions." *Procedia-Social and Behavioral Sciences*, 197, 207-213.
- Erlen, J. A., Sauder, R. J., and Mellors, M. P. (1999). "Incentives in research: ethical issues." *Orthopaedic Nursing*, 18(2), 84.
- Fees, B. S., Kaff, M., Holmberg, T., Teagarden, J., and Delreal, D. (2014). "Children's responses to a social story song in three inclusive preschool classrooms: a pilot study." *Music Therapy Perspectives*, 32(1), 71-77.
- Fereday, J., and Muir-Cochrane, E. (2006). "Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development." *International journal of qualitative methods*, 5(1), 80-92.
- Finlayson, K. (2015). *Dance as a vehicle for expression in children with autism spectrum disorder: Discovering personal expression for their creative, physical being*, Arizona State University.
- Frank, H., and Althoen, S. C. (1994). *Statistics: Concepts and Applications*, New York: Cambridge university press.
- Freebody, P. (2003). *Qualitative research in education interaction and practice*, London: Sage.
- Freeman, T. (2006). "'Best practice' in focus group research: making sense of different views." *Journal of advanced nursing*, 56(5), 491-497.

- Freshwater, D. (2007). "Reading mixed methods research: Contexts for criticism." *Journal of mixed methods research*, 1(2), 134-146.
- Fryling, M. J., Johnston, C., and Hayes, L. J. (2011). "Understanding observational learning: An interbehavioral approach." *The Analysis of Verbal Behavior*, 27(1), 191-203.
- Furniss, G. J. (2008). "Celebrating the artmaking of children with autism." *Art Education*, 61(5), 8-12.
- Gallagher, D. J., Connor, D. J., and Ferri, B. A. (2014). "Beyond the far too incessant schism: Special education and the social model of disability." *International Journal of Inclusive Education*, 18(11), 1120-1142.
- Galletta, A. (2013). *Mastering the semi-structured interview and beyond: From research design to analysis and publication*, New York; London New York University Press.
- Gardner, H. (1999). *Intelligence reframed : multiple intelligences for the 21st century*, New York: Basic Books.
- Gardner, H. (2006). *The development and education of the mind : the selected works of Howard Gardner*, London: Routledge.
- Gernsbacher, M. A. (2017). "Editorial perspective: The use of person-first language in scholarly writing may accentuate stigma." *Journal of Child Psychology and Psychiatry*, 58(7), 859-861.
- Gerring, J. (2004). "What is a case study and what is it good for?" *American political science review*, 98(2), 341-354.
- Giacobbi, P. R., Poczwardowski, A., and Hager, P. (2005). "A pragmatic research philosophy for sport and exercise psychology." *The sport psychologist*, 19(1), 18-31.
- Gibson, W., and Brown, A. (2009). *Working with qualitative data*, London: SAGE.
- Gillham, B. (2007). *Developing a questionnaire*, London: Continuum.
- Gobo, G., and Mauceri, S. (2014). *Constructing survey data: an interactional approach*, London: SAGE.
- Godfrey, E., and Haythorne, D. (2013). "Benefits of dramatherapy for Autism Spectrum Disorder: a qualitative analysis of feedback from parents and teachers of clients attending Roundabout dramatherapy sessions in schools." *Dramatherapy*, 35(1), 20-28.
- Grandin, T. (1995). "The learning style of people with autism: An autobiography", in K. A. Quill, (ed.), *Teaching children with autism: Strategies to enhance communication and socialization*. New York ; London: Delmar, pp. 33-52.
- Grant, R. W., and Sugarman, J. (2004). "Ethics in human subjects research: do incentives matter?" *Journal of Medicine and Philosophy*, 29(6), 717-738.
- Gray, C. (2004). *Social stories 10.0: The new defining criteria & guidelines*: Jenison Public Schools.
- Gray, C. (2015). *The new Social Story™ book*, USA: Future Horizons.
- Gray, C. A. (1998). "Social stories and comic strip conversations with students with Asperger syndrome and high-functioning autism", in E. Schopler, G. B. Mesibov, and L. J. Kuncze, (eds.), *Asperger syndrome or high-functioning autism?* New York: Plenum press, pp. 167-198.

- Gray, C. A., and Garand, J. D. (1993). "Social stories: Improving responses of students with autism with accurate social information." *Focus on autistic behavior*, 8(1), 1-10.
- Gray, D. E. (2009). *Doing research in the real world*, London: SAGE.
- Greasley, P. (2008). *Quantitative data analysis using SPSS: an introduction for health & social science*, New York: McGraw-Hill.
- Guest, G., MacQueen, K. M., and Namey, E. E. (2012). *Applied thematic analysis*, Thousand Oaks, CA: SAGE.
- Haggerty, N. K., Black, R. S., and Smith, G. J. (2005). "Increasing self-managed coping skills through social stories and apron storytelling." *Teaching Exceptional Children*, 37(4), 40-47.
- Hanafin, J. (2014). "Multiple intelligences theory, action research, and teacher professional development: The Irish MI project." *Australian Journal of Teacher Education*, 39(4), 126-141.
- Hanbury, M. (2012). *Educating students on the autistic spectrum: A practical guide*, Los Angeles; London: Sage.
- Hanley-Hochdorfer, K., Bray, M. A., Kehle, T. J., and Elinoff, M. J. (2010). "Social stories to increase verbal initiation in children with Autism and Asperger's Disorder." *School Psychology Review*, 39(3), 484-492.
- Hannah, L. (2001). *Teaching young children with autistic spectrum disorders to learn: a practical guide for parents and staff in mainstream schools and nurseries*, London: National Autistic Society.
- Happé, F. (1999). "Autism: cognitive deficit or cognitive style?" *Trends in cognitive sciences*, 3(6), 216-222.
- Harinie, L. T., Sudiro, A., Rahayu, M., and Fatchan, A. (2017). "Study of the Bandura's Social Cognitive Learning Theory for the entrepreneurship learning process." *Social Sciences*, 6(1), 1.
- Havlat, J. J. (2006). *The effects of music therapy on the interaction of verbal and non-verbal skills of students with moderate to severe autism*, California State University San Marcos.
- Head, E. (2009). "The ethics and implications of paying participants in qualitative research." *International Journal of Social Research Methodology*, 12(4), 335-344.
- Healey, J. F. (2012). *The essentials of statistics: A tool for social research*, Wadsworth: CengageLearning.
- Healey, J. F. (2014). *Statistics: A Tool for Social Research*, Stamford: Cengage Learning.
- Hertzog, M. A. (2008). "Considerations in determining sample size for pilot studies." *Research in nursing & health*, 31(2), 180-191.
- Hewitt-Taylor, J. (2011). *Using Research in Practice: It Sounds Good, But Will it Work?*, London: Palgrave Macmillan.
- Hollander, E., Kolevzon, A., and Coyle, J. T. (2011). *Textbook of autism spectrum disorders*, Washington; London: American Psychiatric.
- Horsburgh, J., and Ippolito, K. (2018). "A skill to be worked at: using social learning theory to explore the process of learning from role models in clinical settings." *BMC medical education*, 18(1), 1-8.
- Hough, B. H., and Hough, S. (2012). "The play was always the thing: Drama's effect on brain function." *Psychology*, 3(06), 454-456.

- Hugh-Jones, S., and Gibson, S. (2012). "Collecting your data", in C. Sullivan, S. Gibson, and S. C. Riley, (eds.), *Doing your qualitative psychology project*. London: SAGE.
- Hydén, L.-C., and Bülow, P. H. (2003). "Who's talking: drawing conclusions from focus groups—some methodological considerations." *Int. J. Social Research Methodology*, 6(4), 305-321.
- Ihantola, E.-M., and Kihn, L.-A. (2011). "Threats to validity and reliability in mixed methods accounting research." *Qualitative Research in Accounting & Management*, 8(1), 39-58.
- Ihuah, P. W., and Eaton, D. (2013). "The pragmatic research approach: A framework for sustainable management of public housing estates in Nigeria." *Journal of US-China Public Administration*, 10(10), 933-944.
- Iliff, J. M. (2011). *The effects of verbal and musical social stories on classroom behavior in children with autism*, University of Kansas.
- Itzchak, E.-B., Aviva, B., and Zachor, D. A. (2013). "Are special abilities in autism spectrum disorder associated with a distinct clinical presentation?" *Research in Autism Spectrum Disorders*, 7(9), 1122-1128.
- Ivankova, N. V., Creswell, J. W., and Stick, S. L. (2006). "Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice." *Field Methods*, 18(1), 3-20.
- Ivey, M. L., Juane Heflin, L., and Alberto, P. (2004). "The use of social stories to promote independent behaviors in novel events for children with PDD-NOS." *Focus on Autism and Other Developmental Disabilities*, 19(3), 164-176.
- Jaarsma, P., and Welin, S. (2012). "Autism as a natural human variation: Reflections on the claims of the neurodiversity movement." *Health care analysis*, 20(1), 20-30.
- Jacelon, C. S., and Imperio, K. (2005). "Participant diaries as a source of data in research with older adults." *Qualitative health research*, 15(7), 991-997.
- Jairath, N., Hogerney, M., and Parsons, C. (2000). "The role of the pilot study: A case illustration from cardiac nursing research." *Applied Nursing Research*, 13(2), 92-96.
- Javadi, M., and Zarea, K. (2016). "Understanding thematic analysis and its pitfall." *Journal of Client Care*, 1(1), 33-39.
- Johanson, G. A., and Brooks, G. P. (2010). "Initial scale development: sample size for pilot studies." *Educational and Psychological Measurement*, 70(3), 394-400.
- Johnson, R. B. (1997). "Examining the validity structure of qualitative research." *Education*, 118(2), 282.
- Kana, R. K., Keller, T. A., Cherkassky, V. L., Minshew, N. J., and Just, M. A. (2006). "Sentence comprehension in autism: thinking in pictures with decreased functional connectivity." *Brain*, 129(9), 2484-2493.
- Kapp, S. K., Gillespie-Lynch, K., Sherman, L. E., and Hutman, T. (2013). "Deficit, difference, or both? Autism and neurodiversity." *Developmental psychology*, 49(1), 59.
- Kassardjian, A., Leaf, J. B., Ravid, D., Leaf, J. A., Alcalay, A., Dale, S., Tsuji, K., Taubman, M., Leaf, R., and McEachin, J. (2014). "Comparing the

- teaching interaction procedure to social stories: A replication study." *Journal of autism and developmental disorders*, 44(9), 2329-2340.
- Keen, D. (2009). "Engagement of children with autism in learning." *Australasian Journal of Special Education*, 33(2), 130-140.
- Kempe, A., and Tissot, C. (2012). "The use of drama to teach social skills in a special school setting for students with autism." *Support for Learning*, 27(3), 97-102.
- Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., and Pellicano, E. (2016). "Which terms should be used to describe autism? Perspectives from the UK autism community." *Autism*, 20(4), 442-462.
- Kern, P., Wakeford, L., and Aldridge, D. (2007). "Improving the performance of a young child with autism during self-care tasks using embedded song interventions: A case study." *Music Therapy Perspectives*, 25(1), 43-51.
- Khanal, R. C. (2013). "Concerns and Challenges of Data Integration from Objective Post-Positivist Approach and a Subjective Non-Positivist Interpretive Approach and Their Validity/Credibility Issues." *Journal of the Institute of Engineering*, 9(1), 115-129.
- Kilanowski, J. F. (2006). "Lessons learned from a pilot study on the health status of children from itinerant populations." *Journal of Pediatric Health Care*, 20(4), 253-260.
- Kim, Y. (2010). "The pilot study in qualitative inquiry: Identifying issues and learning lessons for culturally competent research." *Qualitative Social Work*, 10(2), 190-206.
- Klingman, A. (1988). "Biblioguidance with kindergartners: Evaluation of a primary prevention program to reduce fear of the dark." *Journal of Clinical Child Psychology*, 17(3), 237-241.
- Koch, S., Gaida, J., Kortum, R., Bodingbauer, B., and Manders, E. (2016). "Body image in autism: An exploratory study on the effects of dance movement therapy." *Autism Open Access*, 6(2), 1-7.
- Koegel, L. K., and Koegel, R. L. (2013). "Motivating communication in children with autism", in E. Schopler and G. B. Mesibov, (eds.), *Learning and cognition in autism*. New York: Springer Science and Business Media pp. 73-87.
- Koegel, L. K., Koegel, R. L., Fredeen, R. M., and Gengoux, G. W. (2008). "Naturalistic behavioral approaches to treatment", in K. Chawarska, A. Klin, and F. Volkmar, (eds.), *Autism spectrum disorders in infants and toddlers: Diagnosis, assessment, and treatment*. New York and London: The Guilford Press pp. 207-242.
- Koegel, L. K., Singh, A. K., and Koegel, R. L. (2010). "Improving motivation for academics in children with autism." *Journal of autism and developmental disorders*, 40(9), 1057-1066.
- Kokina, A., and Kern, L. (2010). "Social Story™ interventions for students with autism spectrum disorders: A meta-analysis." *Journal of autism and developmental disorders*, 40(7), 812-826.
- Kolko, D. J., Anderson, L., and Campbell, M. (1980). "Sensory preference and overselective responding in autistic children." *Journal of autism and Developmental Disorders*, 10(3), 259-271.
- Kopinak, J. K. (1999). "The use of triangulation in a study of refugee well-being." *Quality and Quantity*, 33(2), 169-183.

- Kothari, C. R. (2004). *Research methodology: Methods and techniques*, New Delhi: New Age International.
- Kuoch, H., and Mirenda, P. (2003). "Social story interventions for young children with autism spectrum disorders." *Focus on Autism and other developmental disabilities*, 18(4), 219-227.
- Lal, R., and Ganesan, K. (2011). "Children with autism spectrum disorders: Social Stories and self management of behaviour." *Journal of Education, Society and Behavioural Science*, 1(1), 36-48.
- Lambert, S. D., and Loiselle, C. G. (2008). "Combining individual interviews and focus groups to enhance data richness." *Journal of advanced nursing*, 62(2), 228-237.
- Lasry, N. (2010). *Incorporating group art therapy for children with autism into the school system*, Concordia University.
- Lauckner, H., Paterson, M., and Krupa, T. (2012). "Using constructivist case study methodology to understand community development processes: proposed methodological questions to guide the research process." *Qualitative Report*, 17, 1-22.
- Lehoux, P., Poland, B., and Daudelin, G. (2006). "Focus group research and "the patient's view"." *Social science & medicine*, 63(8), 2091-2104.
- Lei, J., Jones, L., and Brosnan, M. (2021). "Exploring an e-learning community's response to the language and terminology use in autism from two massive open online courses on autism education and technology use." *Autism*, 25(5), 1349-1367.
- Lim, H. A. (2010). "Effect of "developmental speech and language training through music" on speech production in children with autism spectrum disorders." *Journal of music therapy*, 47(1), 2-26.
- Linton, S. (1998). "Disability studies/not disability studies." *Disability & Society*, 13(4), 525-539.
- Lipscomb, M. (2012). "Abductive reasoning and qualitative research." *Nursing Philosophy*, 13(4), 244-256.
- Lloyd-Evans, S. (2006). "Focus Groups", in R. B. Potter and V. Desai, (eds.), *Doing Development Research*. London: SAGE.
- Lynn, M. R. (1986). "Determination and quantification of content validity." *Nursing research*, 35(6), 382-386.
- Mack, N., Woodsong, C., MacQueen, K. M., Guest, G., and Namey, E. (2005). *Qualitative research methods: A data collector's field guide*, North Carolina, USA: Family Health International.
- Macnee, C. L., and McCabe, S. (2008). *Understanding nursing research: Using research in evidence-based practice*, Philadelphia: Walters Kluwer Lippincott Williams & Wilkins.
- Malhotra, N. K., and Birks, D. F. (2006). *Marketing Research: An Applied Approach*, Harlow: FT/Prentice Hall.
- Marks, D. F., and Yardley, L. (2004). *Research methods for clinical and health psychology*, London: SAGE.
- Martin, N. (2008). "Assessing portrait drawings created by children and adolescents with autism spectrum disorder." *Art Therapy*, 25(1), 15-23.
- Mason, J. (1994). "Linking qualitative and quantitative data analysis", in A. Bryman and R. G. Burgess, (eds.), *analyzing qualitative data*. London: Routledge.

- Masuwai, A. M., and Saad, N. S. (2016). "Evaluating the face and content validity of a Teaching and Learning Guiding Principles Instrument (TLGPI): A perspective study of Malaysian teacher educators." *Geografia-Malaysian Journal of Society and Space*, 12(3).
- Mathews, K. (2018). *The Effectiveness of Art Therapy for Children with Autism Spectrum Disorder A Literature Review*, the Adler Graduate School.
- Matthews, N. (2009). "Teaching the 'invisible' disabled students in the classroom: disclosure, inclusion and the social model of disability." *Teaching in higher education*, 14(3), 229-239.
- May, M., and Warr, S. (2011). *Teaching Creative Arts and Media 14+*, Maidenhead: Open University Press.
- Mayer, K. J., and Sparrowe, R. T. (2013). "Integrating theories in AMJ articles." *Academy of Management Journal*, 56(4), 917-922.
- McGregor, J. (2006). "Diaries and Case Studies", in R. B. Potter and V. Desai, (eds.), *Doing Development Research*. London: SAGE.
- McLafferty, I. (2004). "Focus group interviews as a data collecting strategy." *Journal of advanced nursing*, 48(2), 187-194.
- McLellan, E., MacQueen, K. M., and Neidig, J. L. (2003). "Beyond the qualitative interview: Data preparation and transcription." *Field methods*, 15(1), 63-84.
- Meth, P. (2003). "Entries and omissions: using solicited diaries in geographical research." *Area*, 35(2), 195-205.
- Meth, P. (2004). "Using diaries to understand women's responses to crime and violence." *Environment and Urbanization*, 16(2), 153-164.
- Miles, D. A. "A Taxonomy of Research Gaps: Identifying and Defining the Seven Research Gaps." *Presented at Doctoral Student Workshop: Finding Research Gaps-Research Methods and Strategies, Dallas, Texas*.
- Mills, H. (2014). "The importance of creative arts in early childhood classrooms." *Texas Child Care Quarterly*, 38(1), 1-3.
- Mills, J., and Birks, M. (2014). *Qualitative methodology: A practical guide*, Thousand Oaks, CA: SAGE.
- Milton, D. E. (2012). "On the ontological status of autism: the 'double empathy problem'." *Disability & Society*, 27(6), 883-887.
- Misak, C. J. (2004). *Truth and the end of inquiry: A Peircean account of truth*, Oxford: Clarendon.
- Mohanaprakash, T. A. (2015). "Assisting echolalia (repetitive speech patterns) in children with autism using android mobile app." *IJAICT*, 1(12), 928-933.
- Moore, K., Scott, I., and Mazhindu, D. (2005). "Descriptive statistics", in I. Scott and D. Mazhindu, (eds.), *Statistics for health care professionals: an introduction*. London: SAGE.
- Moran, A. (2012). "Concentration: Attention and Performance", S. M. Murphy, (ed.) *The Oxford Handbook of Sport and Performance Psychology*. City: Oxford University Press.
- Morgan, D. L. (1996). "Focus groups." *Annual review of sociology*, 22(1), 129-152.
- Morgan, D. L. (1997). *Focus groups as qualitative research*, Thousand Oaks, Calif; London: SAGE.

- Morgan, D. L. (2007). "Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods." *Journal of mixed methods research*, 1(1), 48-76.
- Morgan, D. L. (2014). *Integrating qualitative and quantitative methods: A pragmatic approach*, London: SAGE.
- Mori, F., Naghsh, F. A., and Tezuka, T. "The Effect of Music on the Level of Mental Concentration and its Temporal Change." *Presented at CSEDU (1)*.
- Morrison, C. A. (2012). "Solicited diaries and the everyday geographies of heterosexual love and home: reflections on methodological process and practice." *Area*, 44(1), 68-75.
- Morse, B. (2017). *The Role of Observational Learning in Developing Ecotourists' Environmentally Responsible Behavioral Intentions*, the University of Michigan.
- Morse, J. M. (1991). "Approaches to qualitative-quantitative methodological triangulation." *Nursing research*, 40(2), 120-123.
- Morse, J. M., and Niehaus, L. (2009). *Mixed method design: principles and procedures*, Walnut Creek, Calif: Left Coast Press.
- Müller-Bloch, C., and Kranz, J. (2015). "A framework for rigorously identifying research gaps in qualitative literature reviews."
- Noor, K. B. M. (2008). "Case study: A strategic research methodology." *American journal of applied sciences*, 5(11), 1602-1604.
- O'Leary, K. (2013). "The Effects of Drama Therapy for Children with Autism Spectrum Disorders." *Honors Projects*, 1.
- O'Reilly, M., Lester, J. N., and Kiyimba, N. (2020). "Autism in the Twentieth Century: An Evolution of a Controversial Condition", in S. J. Taylor and A. Brumby, (eds.), *Healthy Minds in the Twentieth Century in and beyond the asylum* Switzerland: Springer, pp. 137-165.
- Oliver, M. (1996). *Understanding disability: From theory to practice*: Basingstoke: Macmillan.
- Oluwatayo, J. A. (2012). "Validity and reliability issues in educational research." *Journal of Educational and Social Research*, 2(2), 391-400.
- Onwuegbuzie, A. J., and Johnson, R. B. (2006). "The validity issue in mixed research." *Research in the Schools*, 13(1), 48-63.
- Opoku, A., Ahmed, V., and Akotia, J. (2016). "Choosing an appropriate research methodology and method", in V. Ahmed, A. Opoku, and Z. Aziz, (eds.), *Research Methodology in the Built Environment*. New York: Routledge, pp. 52-70.
- Orb, A., Eisenhauer, L., and Wynaden, D. (2001). "Ethics in qualitative research." *Journal of nursing scholarship*, 33(1), 93-96.
- Ozdemir, S. (2008). "The effectiveness of social stories on decreasing disruptive behaviors of children with autism: Three case studies." *Journal of Autism and Developmental Disorders*, 38(9), 1689-1696.
- Pasiali, V. (2004). "The use of prescriptive therapeutic songs in a home-based environment to promote social skills acquisition by children with autism: Three case studies." *Music Therapy Perspectives*, 22(1), 11-20.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: integrating theory and practice*, Los Angeles: SAGE.
- Peeters, T. (1997). *Autism : from theoretical understanding to educational intervention*, London: Whurr.

- Penton, W. (2010). *Social stories for children with autism: Are they effective in changing behaviour and/or reducing anxiety?*, Institute of Education, University of London.
- Perepa, P. (2013). *Understanding autism in the early years*: McGraw-Hill Education (UK).
- Petasis, A. (2019). "Discrepancies of the Medical, Social and Biopsychosocial Models of Disability; A Comprehensive Theoretical Framework." *The International Journal of Business Management and Technology*, 3(4), 42-54.
- Plano Clark, V. L., and Ivankova, N. V. (2016). *Mixed methods research: A guide to the field*, Los Angeles: SAGE.
- Plowright, D. (2011). *Using mixed methods: Frameworks for an integrated methodology*, Los Angeles; London: SAGE.
- Polit, D. F., and Beck, C. T. (2006). "The content validity index: are you sure you know what's being reported? Critique and recommendations." *Research in nursing & health*, 29(5), 489-497.
- Prescott, P. A., and Soeken, K. L. (1989). "The potential uses of pilot work." *Nursing Research*, 38(1), 60.
- Quirnbach, L. M., Lincoln, A. J., Feinberg-Gizzo, M. J., Ingersoll, B. R., and Andrews, S. M. (2009). "Social stories: Mechanisms of effectiveness in increasing game play skills in children diagnosed with autism spectrum disorder using a pretest posttest repeated measures randomized control group design." *Journal of autism and developmental disorders*, 39(2), 299-321.
- Regev, D., and Snir, S. (2013). "Art therapy for treating children with Autism Spectrum Disorders (ASD): The unique contribution of art materials." *The Academic Journal of Creative Arts Therapies*, 3(2), 251-260.
- Reindal, S. M. (2008). "A social relational model of disability: a theoretical framework for special needs education?" *European Journal of Special Needs Education*, 23(2), 135-146.
- Reynhout, G., and Carter, M. (2007). "Social Story™ efficacy with a child with autism spectrum disorder and moderate intellectual disability." *Focus on Autism and Other Developmental Disabilities*, 22(3), 173-182.
- Reynhout, G., and Carter, M. (2008). "A pilot study to determine the efficacy of a social story™ intervention for a child with autistic disorder, intellectual disability and limited language skills." *Australasian Journal of Special Education*, 32(2), 161-175.
- Reynhout, G., and Carter, M. (2009). "The use of social stories by teachers and their perceived efficacy." *Research in Autism Spectrum Disorders*, 3(1), 232-251.
- Reynhout, G., and Carter, M. (2011). "Social stories™: A possible theoretical rationale." *European Journal of Special Needs Education*, 26(3), 367-378.
- Richter, S., and Test, D. (2011). "Effects of Multimedia Social Stories on Knowledge of Adult Outcomes and Opportunities among Transition-Aged Youth with Significant Cognitive Disabilities." *Education and training in autism and developmental disabilities*, 46(3), 410-424.
- Ricks, D. M., and Wing, L. (1975). "Language, communication, and the use of symbols in normal and autistic children." *Journal of autism and childhood schizophrenia*, 5(3), 191-221.

- Riggs, D. Y. (2013). *Music Helps Autism, USA*: Perfect Praise.
- Roberts, L. D., and Allen, P. J. (2015). "Exploring ethical issues associated with using online surveys in educational research." *Educational Research and Evaluation*, 21(2), 95-108.
- Roberts, P., Priest, H., and Traynor, M. (2006). "Reliability and validity in research." *Nursing Standard (through 2013)*, 20(44), 41.
- Robinson, K. A., Saldanha, I. J., and Mckoy, N. A. (2011). "Development of a framework to identify research gaps from systematic reviews." *Journal of clinical epidemiology*, 64(12), 1325-1330.
- Rocco, T. S., Bliss, L. A., Gallagher, S., Perez-Prado, Alacaci, C., Dwyer, E. S., Fine, J. C., and Pappamihiel, N. E. (2003). "The pragmatic and dilectical lenses: two views of mixed methods use in education", in A. Tashakkori and C. Teddlie, (eds.), *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, Calif; London: SAGE.
- Rosier, J. T. (2010). *Art and memory: An examination of the learning benefits of visual-art exposure*, Georgia Southern University.
- Ross, M. (1978). *The creative arts*, London: Heinemann Educational.
- Rota, M. (2011). *Use of Social Stories with students in an inclusive kindergarten classroom: An action research study*, University of Rochester.
- Round, A., Baker, W. J., and Rayner, C. (2017). "Using visual arts to encourage children with Autism Spectrum Disorder to communicate their feelings and emotions." *Open Journal of Social Sciences*, 5(10), 90-108.
- Saeed, S., and Zyngier, D. (2012). "How motivation influences student engagement: a qualitative case study." *Journal of Education and Learning*, 1(2), 252-267.
- Sahyoun, C. P., Belliveau, J. W., Soulières, I., Schwartz, S., and Mody, M. (2010). "Neuroimaging of the functional and structural networks underlying visuospatial vs. linguistic reasoning in high-functioning autism." *Neuropsychologia*, 48(1), 86-95.
- Sampson, H. (2004). "Navigating the waves: the usefulness of a pilot in qualitative research." *Qualitative research*, 4(3), 383-402.
- Samuels, R., and Stansfield, J. (2011). "The effectiveness of social stories™ to develop social interactions with adults with characteristics of autism spectrum disorder." *British Journal of Learning Disabilities*, 40(4), 272-285.
- Sandelowski, M. (2003). "Tables or tableaux? the challenges of writing and reading mixed methods studies", in A. Tashakkori and T. Charles, (eds.), *Handbook of mixed methods in social and behavioral research* Thousand Oaks, Calif, London: SAGE.
- Sansosti, F. J., and Powell-Smith, K. A. (2008). "Using computer-presented social stories and video models to increase the social communication skills of children with high-functioning autism spectrum disorders." *Journal of Positive Behavior Interventions*, 10(3), 162-178.
- Saunders, M., Lewis, P., and Thornhill, A. (2009). *Research methods for business students*, London: Prentice Hall.
- Savin-Baden, M., and Major, C. H. (2013). *Qualitative research : the essential guide to theory and practice*, London: Routledge.

- Scattone, D., Tingstrom, D. H., and Wilczynski, S. M. (2006). "Increasing appropriate social interactions of children with autism spectrum disorders using Social Stories™." *Focus on Autism and Other Developmental Disabilities*, 21(4), 211-222.
- Schreibman, L., and Carr, E. G. (1978). "Elimination of echolalic responding to questions through the training of a generalized verbal response." *Journal of Applied Behavior Analysis*, 11(4), 453-463.
- Scott, L. M. (2016). "Theory and research in construction education: the case for pragmatism." *Construction Management and Economics*, 34(7-8), 552-560.
- Shearer, C. B., and Karanian, J. M. (2017). "The neuroscience of intelligence: Empirical support for the theory of multiple intelligences?" *Trends in neuroscience and education*, 6, 211-223.
- Sherratt, D., and Peter, M. (2012). *Developing play and drama in children with autistic spectrum disorders*, London: David Fulton.
- Sherrill, C., and Cox, R. (1979). "Personnel preparation in creative arts for the handicapped: implications for improving the quality of life", in C. Sherrill, (ed.), *Creative arts for the severely handicapped*. Springfield: Charles C. Thomas.
- Sigelman, C. K., and Rider, E. A. (2014). *Life-span human development*, USA: Cengage Learning.
- Sinclair, J. (2013). "Why I dislike "person first" language." *Autonomy, the Critical Journal of Interdisciplinary Autism Studies*, 1(2).
- Skinner, B. F. (1974). *About behaviourism*, London: Cape.
- Smithson, J. (2000). "Using and analysing focus groups: limitations and possibilities." *International journal of social research methodology*, 3(2), 103-119.
- Souza-Santos, C., dos Santos, J. F., Azevedo-Santos, I., and Teixeira-Machado, L. (2018). "Dance and equine-assisted therapy in autism spectrum disorder: Crossover randomized clinical trial." *Clinical Neuropsychiatry: Journal of Treatment Evaluation*.
- Stamou, A., Roussy, A. B., Ockelford, A., and Terzi, L. (2019). "The Effectiveness of a Music and Dance Program on the Task Engagement and Inclusion of Young Pupils on the Autism Spectrum." *Music & Science*, 2, 2059204319881852.
- Talisse, R. B., and Aikin, S. F. (2008). *Pragmatism: a guide for the perplexed*, London: Continuum.
- Tashakkori, A., and Teddlie, C. (2008). "Quality of inferences in mixed methods research: Calling for an integrative framework", in M. M. Bergman, (ed.), *Advances in mixed methods research : theories and applications*. . Los Angeles, Calif, London: SAGE.
- Taşpınar, Ş. E., and Kaya, A. (2016). "Painting with the Multiple Intelligences: Defining Student Success and Permanence in Art Class." *Journal of Education and Training Studies*, 4(7), 259-264.
- Tavakol, M., and Dennick, R. (2011). "Making sense of Cronbach's alpha." *International journal of medical education*, 2, 53.
- Taylor, R. R. (2017). *Kielhofner's research in occupational therapy: Methods of inquiry for enhancing practice*, Philadelphia: FA Davis.

- Teddle, C., and Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*, Los Angeles; London: SAGE.
- Thompson, P. D. (2013). *The school psychology licensure exam guide*, New York: Springer.
- Tonge, B., and Brereton, A. (2005). *Pre-Schoolers with Autism: An Education and Skills Training Programme for Parents-Manual for Parents*, London and Philadelphia: Jessica Kingsley.
- Travers, B. G., Klinger, M. R., and Klinger, L. G. (2011). "Attention and working memory in ASD", in D. Fein, (ed.), *The neuropsychology of autism*. Oxford University Press.
- Treffert, D. (2000). *Extraordinary people: Understanding savant syndrome*. *iUniverse.com.[rBC]*, New York: Ballantine.
- Trevarthen, C. (2002). "Autism, sympathy of motives and music therapy." *Enfance*, 54(1), 86-99.
- Tricomi, L. P., and Gallo-Lopez, L. (2012). "The ACT project: enhancing social competence through drama therapy and performance", in L. Gallo-Lopez and L. C. Rubin, (eds.), *Play-based interventions for children and adolescents with autism spectrum disorders*. New York, London Routledge.
- Unicef. "the UN Convention on Child Rights". City: UK.
- van Steensel, F. J., Bögels, S. M., and de Bruin, E. I. (2015). "DSM-IV versus DSM-5 autism spectrum disorder and social anxiety disorder in childhood: Similarities and differences." *Journal of Child and Family Studies*, 24(9), 2752-2756.
- Van Teijlingen, E., and Hundley, V. (2002). "The importance of pilot studies." *Nursing Standard (through 2013)*, 16(40), 33.
- Van Volkenburg, J. B. (2015). "Reaching children with Autism spectrum disorders using creative dramatics: The building blocks model." *Dimensions of Early Childhood*, 43(2), 13-20.
- Vannest, K. J., Davis, J. L., and Parker, R. I. (2013). *Single case research in schools: Practical guidelines for school-based professionals*: Routledge.
- Vargas, D. d., and Luis, M. A. V. (2008). "Development and validation of a scale of attitudes towards alcohol, alcoholism and alcoholics." *Revista latino-americana de enfermagem*, 16(5), 895-902.
- Velasco, E. (2010). "Exclusion criteria ", in N. Salkind, (ed.), *Encyclopedia of research design*. Thousand Oaks: SAGE.
- Ventimiglia, A. (2007). "The Effects of Social Stories on the Social Interaction and Behavior of Students with Autism Spectrum Disorders."
- Vivanti, G. (2020). "Ask the editor: What is the most appropriate way to talk about individuals with a diagnosis of autism?" *Journal of Autism and Developmental Disorders*, 50(2), 691-693.
- Wan, C. Y., Rüüber, T., Hohmann, A., and Schlaug, G. (2010). "The therapeutic effects of singing in neurological disorders." *Music perception: An interdisciplinary journal*, 27(4), 287-295.
- Webster, M. (2010). *Creative Approaches to Teaching Primary RE*, Harlow: Longman.
- Whicker, M. L., and Miller, G. J. (1999). "Levels of Data, Variables, Hypotheses, and Theory", in G. J. Miller and M. L. Whicker, (eds.),

- Handbook of research methods in public administration*. New York: Marcel Dekker.
- Wilkes, K. (2005). *The sensory world of the autistic spectrum: A greater understanding*: National Autistic Society.
- Willis, K. (2006). "Interviewing", in V. Desai and R. B. Potter, (eds.), *Doing development research*. London: SAGE.
- Wing, L., and Potter, D. (2002). "The epidemiology of autistic spectrum disorders: is the prevalence rising?" *Mental retardation and developmental disabilities research reviews*, 8(3), 151-161.
- Wood, R. (2019). *Inclusive Education for autistic children: Helping children and young people to learn and flourish in the classroom*: Jessica Kingsley Publishers.
- Wright, B., Marshall, D., Adamson, J., Ainsworth, H., Ali, S., Allgar, V., Moore, D. C., Cook, E., Dempster, P., and Hackney, L. (2016). "Qualitative analysis of the views of Social Story users", *Social Stories™ to alleviate challenging behaviour and social difficulties exhibited by children with autism spectrum disorder in mainstream schools: design of a manualised training toolkit and feasibility study for a cluster randomised controlled trial with nested qualitative and cost-effectiveness components*. NIHR Journals Library.
- Wynd, C. A., and Schaefer, M. A. (2002). "The osteoporosis risk assessment tool: Establishing content validity through a panel of experts." *Applied Nursing Research*, 15(3), 184-188.
- Xin, J. F., and Sutman, F. X. (2011). "Using the smart board in teaching social stories to students with autism." *Teaching exceptional children*, 43(4), 18-24.
- Yalman, S. G., and Gozum, A. (2013). "The effects of multiple intelligence theory based teaching on students' achievement and retention of knowledge (example of the enzymes subject)." *International Journal on New Trends in Education and Their Implications*, 4(3), 27-36.
- Yin, R. K. (2009). *Case study research: Design and Methods*, Thousand Oaks, Calif; London: SAGE.
- Yvonne Feilzer, M. (2010). "Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm." *Journal of mixed methods research*, 4(1), 6-16.
- Zhou, X., and Hall, J. N. (2016). "Mixed Methods Papers in First-Person and Third-Person: Writing Voices in Dialogue." *Journal of Mixed Methods Research*, 1, 14.
- Zimmerman, D. H., and Wieder, D. L. (1977). "The diary: diary-interview method." *Urban life*, 5(4), 479-498.
- Zucker, D. M. (2001). "Using case study methodology in nursing research." *The Qualitative Report*, 6(2), 1-13.

Appendices

Appendix (A): Multiple intelligences theory categories definition

Multiple intelligences theory according to Gardner (cited in Taşpınar and Kaya, 2016, pp.259-260), involves 8 mental dimensions defining individual differences.

Verbal – linguistic intelligence; it can be summarized as the individual ability to use effectively the concepts belonging to language. The most apparent characteristics of the individuals having such kind of intelligence are that they can exhibit better speaking, listening, reading and writing skills and effective communication and learning approaches.

Logical – Mathematical intelligence; this mental area can enable individual to use actively the skills such as guessing, thinking imaginary, setting cause – effect relation, comprehending complex relations, analysing, foreseeing and criticising.

Visual – spatial intelligence; it is the ability of individuals to perceive visually the world around them. Individuals with developed visual – spatial intelligence can rapidly recognise and remind the figures, forms, shapes, symbols, visual publications and colours around them.

Bodily – kinaesthetic intelligence; individuals with such intelligence are capable of using their bodies to express their senses and thoughts and they can reveal easily their feelings through movements, gestures and mimics.

Musical – rhythmic intelligence; the most important characteristics of this intelligence type is that individuals can think, comment and communicate musically.

Interpersonal Intelligence; Individuals with developed social intelligence have also advanced communicative skills. They can easily understand feelings, thoughts and manners of individuals around them while they are transferring their own feelings and opinions to others.

Intrapersonal Intelligence; It is the most used intelligence area in daily life. It is the ability of individuals to be conscious about their own limits by knowing themselves and direct their movements depending on this knowledge.

Naturalist Intelligence; this type of intelligence is developed among those knowing the characteristics and living conditions of all animals in the nature.

Appendix (B): Information sheet

Who is conducting the research? My name is Rasha Bawazir and I am a doctoral student at the University College London Institute of Education. I am inviting you to take part in my research project, “Using Social Stories with the creative arts for individuals on the autism spectrum: professionals’ perspectives”.

You do not need to have used Social Stories; I am interested in your opinions as someone working with individuals on the autism spectrum.

I am hoping to explore professionals’ perspectives on using Social Stories with the creative arts for individuals on the autism spectrum. The study will also investigate professionals’ reflections and ideas about the practical use and effects of using Social Stories with the creative arts for individuals on the autism spectrum. In addition, the research will explore the ways in which professionals understand the nature of change for individuals on the autism spectrum when they use Social Stories with the creative arts.

I very much hope that you will take part in the study. You can be involved in variety of ways: by filling in a questionnaire, participating in focus group and individual interviews, completing a short diary and participating in a diary-based individual interview. This information sheet will try to answer any questions you might have about the project, but please don’t hesitate to contact me if there is anything else you would like to know.

Why are we doing this research? The use of Social Stories with the creative arts is an emerging area of knowledge. As such, it lends itself to the idea of exploring professionals’ knowledge, attitude and practice on using Social Stories with the creative arts for individuals on the autism spectrum. The main research questions are as follows:

1. What are professionals’ perspectives on the nature of using Social Stories for individuals on the autism spectrum?
2. What are professionals’ perspectives on the nature of using the creative arts for individuals on the autism spectrum?
3. What are professionals’ perspectives on the impact of using Social Stories in conjunction with the creative arts for individuals on the autism spectrum?
4. How do professionals approach the use of Social Stories with the creative arts for individuals on the autism spectrum?

The questionnaire uses the following definitions of Social Stories and the creative arts:

A Social Story: “is a short story that adheres to a specific format and guidelines to objectively describe a person, skill, event, concept, or social situation (Gray, 1998, p.171)”.

The creative arts: refers to visual art, drama, music and dance.

Social Stories with the creative arts: this refers to the use of Stories with a creative arts element in their delivery to stimulate cognition, social interaction, communication and psychological wellbeing for individuals on the autism spectrum, for instance.

Why am I being invited to take part? I am asking you to take part in this research because you work with individuals on the autism spectrum, and I believe you can provide important information that may add more value to the research. It may also provide an opportunity for you to reflect on your own practice. The information that you provide will contribute to the future development of professionals working with individuals on the autism spectrum.

What will happen if I choose to take part? If you are happy to participate in the research, you will be asked to complete a brief questionnaire after reading this information sheet. You can also opt to take part in interviews (*£25 voucher will be given for each interview*) or to fill in a short diary (*£40 voucher will be given*). If you are interested in participating in these aspects of the research, please complete the follow up sessions section; you will find this in the questionnaire.

Questionnaire: the questionnaire consists of a series of questions for professionals who work with individuals on the autism spectrum. Please answer all the questions that apply to you. Completing the questionnaire should take between 10 and 15 minutes.

Focus group interview and/or individual interview: you will be asked a number of questions to facilitate an active discussion. Questions will relate to your perspectives on the nature, the impact and the use of Social Stories with the creative arts for individuals on the autism spectrum. The focus group interview may be face to face or via Skype to facilitate arrangements for those who wish to take part. The individual interview will normally be by Skype. All the interviews will take around 20 minutes.

Diary: you will be asked to write a simple, easy-to-complete diary by responding to a short set of questions. The diary consists of around seven open-ended questions related to your experiences of using Social Stories with the creative arts for individuals on the autism spectrum and you will be asked to complete the diary over the course of a working week. A short follow-up interview will be required to discuss some questions that arise from your diary. The interview will be scheduled at a suitable time for you and will take around 15- 20 minutes.

Recording: all the interviews will be recorded, as this will help me to retain an accurate summary of the discussion. The recorded interviews will provide me with a precise transcription. If you would like to read your interview transcription please ask me for a copy.

Will anyone know I have been involved? All responses to my questions and information provided by you will be anonymised, and no personal details relating to you or your place of work will be recorded anywhere. Anonymity will be assured by using pseudonyms when the research project is written. All recorded and written information will remain under my protection and will be kept in my personal laptop, protected with a password.

Could there be problems for me if I take part? There are no risks involved in participating in the research. However, for some participants talking at an interview can be stressful. In this case, if you feel uncomfortable during the interview please let me know. You have the right to withdraw from the study at any time; if necessary, I can reschedule the interview for you. All the research raw data as well as the recorded interviews and transcriptions will be destroyed upon completion of my PhD studies.

What will happen to the results of the research? The main use of the research results will be to underpin my PhD studies and form part of my dissertation. The results of the research will help to develop work in the field to benefit individuals on the autism spectrum. It may also be used for other research purposes such as

journal publications and presentation at conferences.

Do I have to take part? It is entirely up to you whether or not you choose to take part. I hope that if you do choose to be involved you will find it a valuable experience. You have the right to withdraw from the research at any time without providing any reasons and this will not affect you negatively in any way.

Thank you very much for taking the time to read this information sheet. If you have any further questions before you decide whether to take part, you can reach me at:

This project has been reviewed and approved by the UCL IOE Research Ethics Committee.

Appendix (C): Questionnaire

Section (A) Background information:

1) Country:

.....

2) Setting: (Please tick)

- School. University. Home. Health.
 Social care. An arts setting. Other.

If you selected other, please specify:

.....

3) Job title: (Please tick)

- Arts Teacher. Non-arts Teacher. Special Education
Teacher.
 Therapist. ABA Specialist. Teaching Assistant.
 Special educational needs coordinator (SENCO). Researcher.
 Student. Other.

If you selected other, please specify:

.....

4) What age group are you working with? (Please tick)

- Children on the autism spectrum. Adults on the autism spectrum.
 Both age groups.

5) Please indicate which best applies to you (area of expertise): (please tick)

- I use Social Stories without the creative arts. I use Social Stories
with the creative arts.
 I have observed Social Stories being used. I have some knowledge
of Social Stories.
 I have observed Social Stories with the creative arts being used.
 I have some knowledge of Social Stories with the creative arts. Other.

If you selected other, please specify:

.....

- a) For how long?** 1-5 years. 6-10 years. More than 10
years.

Follow up sessions:

I only wish to complete this questionnaire.

Interviews: If you use Social Stories with or without the creative arts, would you be interested in taking part in the following? (Please tick)

Focus group interview. Individual interview. Both types of interviews.

Short Diary: if you use Social Stories with the creative arts would you be interested in completing a short diary and taking part in a brief follow up interview? (Please tick)
(A diary consists of around seven open-ended questions related to your experiences of using Social Stories with the creative arts for individuals on the autism spectrum).

Diary and diary-based individual interview.

Please give details of how I can contact you:

Phone:.....

Email:.....

Section (B) Professionals' perspectives:

You do not need to have used Social Stories; I am interested in your opinions as someone working with individuals on the on the autism spectrum.

The following statements all refer to individuals on the autism spectrum.

Part One: The nature of using Social Stories for individuals on the autism spectrum:

		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1)	It is important for individuals to concentrate when learning Social Stories.					
2)	When engaging with Social Stories individuals need to concentrate in order to understand the Story.					
3)	When learning Social Stories any disturbance can reduce individuals' ability to understand the Story.					
4)	It is essential that individuals understand the content within Social Stories.					
5)	Engaging with Social Stories can help individuals to create change in their own lives.					
6)	Remembering the content of Social Stories can help individuals to relate the Story to changes in their own lives.					
7)	Motivation is important for individuals to be engaged with Social Stories.					
8)	In my experience, Social Stories are more effective for individuals when used alongside other intervention strategies.					

Part Two: The nature of using the creative arts (e.g. *visual art, drama, music and dance*) for individuals on the autism spectrum.

		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1)	Participating in the creative arts in general can encourage individuals to develop imaginative thinking.					
2)	Participating in the creative arts in general can enhance individuals' ability to remember information.					
3)	Participating in the creative arts in general can help individuals to communicate their understanding of any experience.					
4)	Participating in the creative arts in general can help individuals to represent social experience and make them more comprehensible.					
5)	Participating in the creative arts in general can increase individuals' motivation to learn.					
6)	Participating in the creative arts in general can enable individuals to communicate because they stimulate verbal communication.					
7)	Participating in the creative arts in general can enable individuals to communicate without using words.					
8)	Participating in the creative arts in general can help individuals to express their feelings.					
9)	Participating in the creative arts in general can help reduce individuals' levels of stress.					
10)	Participating in the creative arts in general can help reduce individuals' levels of anxiety.					

Part Three: The impact of using Social Stories with the creative arts for individuals on the autism spectrum. (*Social Stories with the creative arts*: this refers to the use of Stories with a creative arts element in their delivery to stimulate cognition, social interaction, communication and psychological wellbeing for individuals on the autism spectrum, for instance).

		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1)	Using Social Stories with the creative arts can help individuals to concentrate.					
2)	Using Social Stories with the creative arts can improve individuals' ability to understand the Story.					
3)	Using Social Stories with the creative arts can increase an individual's ability to remember the Story content.					
4)	Using Social Stories with the creative arts can enable individuals to communicate their understanding of the Story.					
5)	Using Social Stories with the creative arts can increase individuals' ability to perform the content of the Story.					
6)	Using Social Stories with the creative arts can encourage effective communication between professionals and individuals.					
7)	Using Social Stories with the creative arts can motivate individuals to engage with the Story.					

Section (C) The way professionals use Social Stories with the creative arts for individuals on the autism spectrum: (***Social Stories with the creative arts***: this refers to the use of Stories with a creative arts element in their delivery to stimulate cognition, social interaction, communication and psychological wellbeing for individuals on the autism spectrum, for instance).

If you use Social Stories with the creative arts, please indicate 'Yes' so that I can find out more. If you don't use them, please indicate 'No' to go to the end of the questionnaire.

- Yes. No.

1) What type of the creative arts do you use with Social Stories? (Please tick as many as appropriate)

- Visual art. Drama. Music. Dance. Other.

If you selected other, please specify:

.....
.....

2) What is the Intended impact of using Social Stories with the creative arts? (Please tick as many as appropriate)

- Teach social skills. Introduce changes/new routines.
 Increase appropriate behaviour. Reduce inappropriate behaviour.
 Teach academic skills. Increase creativity.
 To teach personal hygiene. To teach how to deal with emotions.
 Other.

If you selected other, please specify:

.....

3) What are the purposes of using the creative arts with Social Stories? (Please tick as many as appropriate)

- Because individuals on the autism spectrum enjoy and prefer using the creative arts compared with other strategies.
 To increase individuals on the autism spectrum ownership of a Social Story.
 To explain a scene from a Social Story that is not understood.
 To encourage the repetition of a Social Story.
 To help individuals on the autism spectrum to remember a Social Story content.
 To encourage individuals on the autism spectrum self-awareness of their own behaviour.
 To practice social interaction in a safe and less socially challenging environment.

Other.

If you selected other, please specify:

.....

4) When do you use the creative arts with Social Stories? (Please tick as many as appropriate)

- Before using Social Stories. During the use of Social Stories.
 After using Social Stories. Other.

If you selected other, please specify:

.....

5) How do you use the creative arts with Social Stories? (Please tick as many as appropriate)

- To draw entire Social Stories.
 To draw some scenes from Social Stories.
 To role-play the whole Social Stories.
 To role-play some scenes from Social Stories.
 To produce games and improvisation. To sing the Social Stories.
 To improvise elements from Social Stories. Background music.
 By changing the lyrics of a well-known song to reflect some parts of the Social Stories content.
 To use dance movement to depict entire Social Stories.
 To use dance movement to depict some scenes from Social Stories.
 Other.

If you selected other, please specify:

.....

6) Social Stories with the creative arts are delivered / produced / modelled by: (Please tick as many as appropriate)

- Teacher. An individual on the autism spectrum.
 Non-autistic individual. Other.

If you selected other, please specify:

.....

7) Social Stories with the creative arts are delivered by: (Please tick as many as appropriate)

- Puppets. Audio. Video. Other.

If you selected other, please specify:

.....

8) Did you notice any effects or changes for individuals on the autism spectrum when using Social Stories with the creative arts?

- Yes. No. I don't know.

If yes, please give an example:

.....

a) Were the changes:

- Positive. Negative. I don't know.

b) Were the changes maintained?

- Yes. No. I don't know.

If yes, please give an example:

.....

c) If yes, for how long the changes were maintained?

- 1-3 months. 4-6 months. 7-9 months. More than 9 months.

d) Were the changes generalised?

- Yes. No. I don't know.

If yes, please give an example:

.....

9) How do you view the effect of using Social Stories with the creative arts?

- Ineffective. Somewhat effective. Very effective. I don't know.

10) Did you experience any difficulties when using Social Stories with the creative arts?

- Yes. No. I don't know.

If yes, please give an example:

.....

Thank you for completing the questionnaire.

Appendix (D): Focus group interview schedule

Introduction:

The interview session will start as following:

Good afternoon and welcome. Thanks for taking the time to join the discussion about the use of Social Story with the creative arts. My name is Rasha Bawazir. My role will be to guide the discussion by asking questions, listening and make sure everyone has a chance to share. I will be taking notes to help me ask for clarification when needed.

Please feel free to share your point of view even if it differs from what others have said. I am interested to hearing from each of you. Please avoid speaking if someone else is talking in order to have a clear recording and make sure your phones is off /silent mood. Please introduce yourself by giving your name and role in a sentence. Remind them of consent.

Before we start do you have any question?

I have 3 main areas to cover so I might need to move to cover all the questions.

Discussion questions:

Q (1) These first questions concern professionals' perspectives on the nature of using Social Stories for individuals on the autism spectrum?

- 1- Can you tell me in your own words what is a Social Story?
- 2- What do you need to take into consideration when using Social Stories with individuals on the autism spectrum?

Q (2) These next questions concern professionals' perspectives on the nature of using the creative arts for individuals on the autism spectrum?

- 1- What do you understand by the term creative arts in the context of autism spectrum?
- 2- Do you think the creative arts can play a role in the education of individuals on the autism spectrum?
 - Why? /Why not?
 - If 'Yes' - How? Can you give me any examples?

Q (3) These questions concern professionals' perspectives on the impact of using Social Stories in conjunction with the creative arts for individuals on the autism spectrum?

- 1- Do you think the creative arts can play a role when they are used with Social Stories for individuals on the autism spectrum?

- Why? /Why not?
- If 'Yes' - How? Can you give any examples?
- 2- What are some of the challenges in using the creative arts with Social Stories for individuals on the autism spectrum?

Conclusion:

- A. Ask if there is something to add.
- B. Thank participants for participation.
- C. End the interview.

Appendix (E): Individual interview schedule

Introduction:

The interview session will start by:

- A. Welcoming and thanking participants for volunteering.
- B. Giving a brief overview of the purpose of the interview.
- C. Asking participants to introduce themselves.

Q (1) What are professionals' perspectives on the nature of using Social Stories for individuals on the autism spectrum?

- 1- Do you design your own Social Stories or use prepared stories? Why?
- 2- Can you tell me about some of your methods of working with Social Stories for individuals on the autism spectrum? Why do you use this method?
- 3- What methods do you use to motivate individuals on the autism spectrum when using social story?
- 4- How do you know that individuals on the autism spectrum understand the content of social story?
- 5- What methods do you use to evaluate individuals on the autism spectrum comprehension of a social story?
- 6- How do you measure that individuals on the autism spectrum understanding of social stories get better?
- 7- When using Social Stories, how do you understand the nature of change for individuals on the autism spectrum?
- 8- What do you take into consideration when reading social story for an individual with autism?

Q (2) What are professionals' perspectives on the nature of using the creative arts for individuals on the autism spectrum?

- 1- Do you think it is important to engage individuals on the autism spectrum in the creative arts activities? Why? /Why not? Can you give any examples?

Q (3) What are professionals' perspectives on the impact of using Social Stories in conjunction with the creative arts for individuals on the autism spectrum?

- 1- What do you think are the parallels between using the creative arts with Social Stories and using only Social Stories for individuals on the autism spectrum?
- 2- What do you think are the differences between using the creative arts with Social Stories and using only Social Stories for individuals on the autism spectrum?
- 2- How do you understand the nature of change for individuals on the autism spectrum when using Social Stories with the creative arts?

- 3- In which situations do you think using the creative arts with Social Stories can be most effective? Why?

Conclusion:

- A. Ask if there is something to add.
- B. Thank participants for participation.
- C. End the interview.

Appendix (F): Informed consent

Informed Consent Form PhD dissertation research

Please complete this form after you have read the Information Sheet about the research.

Project Title: Using Social Stories with the creative arts for individuals on the autism spectrum: professionals' perspectives.

Researcher: Rasha Bawazir.

Thank you for your interest in taking part in this research.

If you have any questions arising from the information sheet or explanation already given to you, please ask the researcher before you to decide whether to join in. you can reach me at:

You will be given a copy of this Consent Form to keep and refer to at any time.

Participant's Statement

I agree that: (please tick)

- I have read the notes written above and the Information Sheet, and understand what the study involves. ()
- I understand that if I decide at any time that I no longer wish to take part in this project, I can notify the researcher involved and withdraw immediately. ()
- I consent to the processing of my personal information for the purposes of this research study. ()
- I understand that my participation will be recorded and I consent to the use of this material as part of the project. ()
- I understand that the information I have submitted will be published as a report. Confidentiality and anonymity will be maintained and it will not be possible to identify me from any publications. ()
- I understand that such information will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act 1998. ()
- I agree that the research project named above has been explained to me to my satisfaction and I agree to take part in this study. ()

By signing below I am indicating my consent to (please tick):

- Participate in a focus group interview. ()
- Participate in an individual interview. ()
- Participate in a diary-based individual interview. ()

Participant signature:

Date:

Researcher signature:

Date:

Appendix (G): Diary

Dear diary-writer,

Thank you for agreeing to keep a diary. The main focus of the diary is to explore your experience of using Social Stories with the creative arts for individuals on the autism spectrum.

Diary guidelines

Please:

- Return the diary within a week.
- Write about how you use Social Stories with the creative arts with only one individual on the autism spectrum.
- Respond to the set of questions provided in the diary booklet that will help you to explain your practice.
- Write as many words, as you want.
- Type the diary into the document I provided.
- Make it clear if you are using one or more types of the creative arts with the same Social Story that you are writing about (e.g. are you only using drawing with Social Story or using drawing and music with Social Story).
- A space is left at the end of the diary for you to use if there is anything you would like to add related to your practice that the provided questions don't cover.
- Please send your completed diary to this email:

Follow-up interview

A follow-up interview will be scheduled at a suitable time for you, which will be face-to-face or via Skype. The interview will aim to discuss some questions related to your diary.

Many thanks for your cooperation. If you have any questions please contact me via email:

Rasha Bawazir

UCL Institute of Education

Section (A) Background information:

1) Country:

2) Setting: (Please tick)

- School. University. Home. Health.
 Social care. An arts setting. Other.

If you selected other, please specify:

3) Job title: (Please tick)

- Arts Teacher. Non-arts Teacher. Special Education
Teacher.
 Therapist. ABA Specialist. Teaching Assistant.
 Special educational needs coordinator (SENCO). Researcher.
 Student. Other.

If you selected other, please specify:

4) What age group are you working with? (Please tick)

- Children on the autism spectrum.
 Adults on the autism spectrum.
 Both age groups.

5) For how long have you used Social Stories with the creative arts?

- 1-5 years. 6-10 years. More than 10 years.

6) What continuing professional development have you received that has supported your experience of Social Stories use?

Section (B) the diary: please answer the following questions.

1- What were your aims in using Social Story?

2- What type of the creative arts did you use with Social Story?

3- What was the purpose behind using this particular type of the creative arts with Social Story?

4- How did you use this type of the creative arts with Social Story?

- A) How did you match the story to the needs of the individual?
- B) Please describe what you did during and after this practice?
- C) What was your role? And what were the main actions that you undertook in this role during the Social Story with the creative arts work?
- D) What was the role of the individual on the autism spectrum?
- E) What strategies did you use to assess the individual on the autism spectrum comprehension of the Story?

5- How do you view the effect of using this type of the creative arts with Social Story?

- A) During the Social Story activity.
- B) After the Social Story activity:
 - The maintenance of any intended changes (**please mention the period of time as you see appropriate**).
 - The generalisation of any intended changes (**please mention the period of time as you see appropriate**).

6- How do you describe your overall experience of using this type of the creative arts with Social Story?

- A) What went well?
- B) What was difficult?

7- Is there anything related to this practice (i.e. using the creative arts with Social Stories) that you would like to change in the future? Give an example? Why?

Please write any additional information that you would like to share concerning this practice (i.e. using the creative arts with Social Stories) in this space.

Thank you for completing the diary.

Appendix (H): Transcription guidelines

McLellan et al. (2003, pp.77-80) guidelines for transcribing the content of the audio records:

- 1- Nonverbal sounds: shall be typed in parentheses, for example, (short sharp laugh), (group laughter).
- 2- The spelling of key words, blended or compound words, common phrases, and identifiers shall be standardized.
- 3- Filler words such as hm, huh, mmhm, uh huh...shall be transcribed. [L SEP]
- 4- Word or phrase repetitions shall be transcribed.
- 5- Overlapping speech: If individuals are speaking at the same time (i.e., overlapping speech) and it is not possible to distinguish what each person is saying, the transcriber shall place the phrase [cross talk] in square brackets immediately after the last identifiable speaker's text and pick up with the next audible speaker.
- 6- Sensitive Information: If an individual uses his or her own name during the discussion, the transcriber shall replace this information with the appropriate interviewee identification label/ naming convention. If an individual provides others' names, locations, organizations, and so on, the transcriber shall enter an equal sign immediately before and after the named information. Analysts will use this labeling information to easily identify sensitive information that may require substitution.

Appendix (I): Pilot study expert panel email letter, information sheet and questionnaire

Expert panel email letter

Assessing an instrument

Dear

My name is Rasha Bawazir and I am a doctoral student at the University College London's Institute of Education. I am investigating professionals' perspectives and practices concerning social stories with creative arts for children on the autism spectrum.

This email is only to see if you are interested and willing to offer some input. I attach the material for information so that you can see the brief nature of your involvement. I will follow up my email to see if you can offer comments within the structure I have created for easy use.

You are being invited to participate in this research because you are an expert in the field of autism spectrum or art therapy and your feedback will be helpful in assessing the research instrument.

I would very much appreciate it if you would take part in reviewing a simple questionnaire for content validity. Your feedback on the questionnaire will take around 30 minutes of your time.

More information about the research is included in an information sheet attached to the questionnaire. If you have any further questions, you can reach me at:

Kind regards

Rasha Bawazir

Please return the assessment form within a week.

Expert panel questionnaire review

Information sheet

Who is conducting the research?

My name is Rasha Bawazir and I am a doctoral student at the University College London's Institute of Education. I am inviting you to take part in my research project, 'using social stories with creative arts for children on the autism spectrum: professional perspectives'.

I am hoping to explore professional perspectives on using social stories* with creative arts* for children on the autism spectrum. The study will also investigate professionals' reflections and ideas about the practical use and effects of social stories with creative arts for children on the autism spectrum. In addition, the research will explore the ways in which professionals understand the nature of change for children on the autism spectrum when they use social stories with creative arts.

You do not need to have used social stories; I am interested in your opinions as someone working with children on the autism spectrum.

I very much hope that you would like to take part in the online questionnaire, focus group and individual interviews, solicited diary and diary-based individual interview. This information sheet will try and answer any questions you might have about the project, but please don't hesitate to contact me if there is anything else you would like to know.

Why are we doing this research?

The use of social stories with creative arts is an emergent area of knowledge. As such, it lends itself to the idea of exploring professionals' knowledge, attitude and practice on using social stories with creative arts for autistic children.

The main research questions are as follows:

1. What are professionals' perspectives on the nature and impact of using social stories with creative arts for children on the autism spectrum?
2. How do professionals use social stories with creative arts for children on the autism spectrum?

For both questions:

1. What are the similarities and differences in professionals' perspectives and the use of social stories with creative arts?
2. How do professionals' understandings of children on the autism spectrum affect the way they see the practice and the impact of social stories with creative arts?

Why am I being invited to take part?

I am asking you to take part in this research because you work with children on the autism spectrum, and I believe you can provide important information that may add more value to the research. It will also be an opportunity for you to reflect on your

practice. The information that you provide can also contribute to the future development of professionals working with children on the autism spectrum.

What will happen if I choose to take part?

If you are happy to participate in the research, you will be asked to read this information sheet and then complete a brief online questionnaire.

You can also opt to take part in interviews and an easy to complete short diary. If you are interested in participating please complete the follow up sessions section that you will find in the online questionnaire. If you want to be further involved please sign the consent form, which will be sent to you after completing the questionnaire, and return it to me. When I receive the consent form I will contact you.

Questionnaire: the online questionnaire consists of a series of questions for professionals who work with children on the autism spectrum. Please answer all the questions that apply for you. Completing the questionnaire should take about 15 minutes.

Focus group interview and/or individual interview: you will be asked a number of questions to facilitate an active discussion. Questions will relate to your perspectives on the nature and impact of using social stories with creative arts for children on the autism spectrum. The focus groups may be face to face or via Skype to enable people to take part. The individual interviews will normally be by Skype and will take around 20 minutes.

Solicited diary: you will be asked to write a simple easy to complete diary by responding to a short set of questions. The diary consists of seven open-ended questions related to your experiences of using social stories with creative arts. You will be offered a week to complete the diary. A short follow-up interview will discuss some questions that arise from your diary. The interview will be scheduled at a suitable time for you and will be around 20 minutes.

Audio-record: all the interviews will be audio-recorded and this will help me to retain an accurate summary of the discussion. The recorded interviews will provide me with a precise transcription and may use appropriate quotes when addressing the research questions. If you would like to read your interview transcription please ask me for a copy.

Will anyone know I have been involved?

All responses to my questions and information provided by you will be anonymised, and no personal details relating to you or your place of work will be recorded anywhere. Anonymity will be achieved by using pseudonyms when the research project is written. All recorded and written information will remain under my protection and will be kept in my personal laptop, protected with a password.

Could there be problems for me if I take part?

There are no risks involved in participating in the research. However, for some participants talking at an interview can be stressful. In this case, if you feel uncomfortable during the interview please let me know. You have the right to withdraw from the study at any time; if necessary, I can reschedule the interview for you. All the research data as well as the recorded interviews and transcriptions will be destroyed upon completion of my PhD studies.

What will happen to the results of the research?

The main use of the research results will be to underpin and form part of my PhD

dissertation. The results of the research may also be used for other research purposes such as journal publications and presentation at conferences.

Do I have to take part?

It is entirely up to you whether or not you choose to take part. We hope that if you do choose to be involved you will find it a valuable experience. You have the right to withdraw from the research at any time without providing any reasons and this will not affect you negatively in any way.

Thank you very much for taking the time to read this information sheet. If you have any further questions before you decide whether to take part, you can reach me at:

This project has been reviewed and approved by the UCL IOE Research Ethics Committee.

The questionnaire uses the following definitions of social stories and creative arts:

* “Social stories are short descriptions of a particular situation, event or activity, which include specific information about what to expect in that situation and why” (autism.org.uk).

* Creative arts refers to the use of visual art, drama and music with different learning activities such as social stories to stimulate cognition, social interaction, communication and psychological wellbeing for children on the autism spectrum.

Questionnaire

Section (A) Background information:

1) Country:

.....

2) Setting:

School.

Clinic.

Other.

If you selected other, please specify:

.....

3) Job title:

Teacher.

Special Education Teacher.

Teaching Assistant.

Therapist.

Other.

If you selected other, please specify:

.....

4) What do you use with autistic children?

Social stories.

Social stories with creative arts.

I don't use social stories myself, but I have observed them in use.

5) How long have you been using the selected method?

1-5 years.

- 5-10 years.
- More than 10 years.
- I don't use them directly.

Follow up sessions:

If you wish to participate in a follow up session (please tick):

- Focus group interviews.
- Individual interviews.
- Both interviews.

If you will only participate in a follow up session please write your name and email:

.....

If you are only using creative arts with social stories and wish to participate in a follow up session (please tick):

- Solicited diaries and diary-based individual interviews.

If you will only participate in a follow up session please write your name and email:

.....

*Please indicate any changes in this section for revision:

Comments

Section (B) professionals' perspectives on:

Part One: The nature of using social stories for children on the autism spectrum. (You do not need to have used social stories; I am interested in your opinions as someone working with children on the autism spectrum).

*Please indicate the relevance of the items and provide any suggestions for item revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

		Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments
1)	It is important for autistic children to concentrate when using social stories in order to understand the story.					
2)	Lack of attention negatively affects autistic children's ability to understand social stories.					
3)	Autistic children need to remember the information held within social stories in order for them to be effective.					
4)	Retaining the content of social stories helps autistic children to replicate a desired behaviour within the story.					
5)	Helping autistic children to be motivated is important to engage them with social stories.					

Part Two: The nature of using creative arts for children on the autism spectrum. (You do not need to have used social stories; I am interested in your opinions as someone working with children on the autism spectrum).

*Please indicate the relevance of the items and provide any suggestions for item revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

		Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments
1)	Creative arts help autistic children to demonstrate their understanding of different areas of knowledge and behaviour.					
2)	Creative arts enhance autistic children's ability to remember information.					
3)	Creative arts encourage autistic children to develop imaginative thinking.					
4)	Creative arts increase autistic children's motivation to learn.					
5)	Creative arts enable autistic children to communicate because they stimulate verbal communication.					
6)	Creative arts enable autistic children to communicate through nonverbal means.					
7)	Creative arts help autistic children to express their feelings.					

8)	Creative arts help reduce autistic children's levels of stress and anxiety.					
----	---	--	--	--	--	--

Part Three: The impact of using social stories with creative arts for children on the autism spectrum. (You do not need to have used social stories; I am interested in your opinions as someone working with children on the autism spectrum).

*Please indicate the relevance of the items and provide any suggestions for item revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

		Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments
1)	Using social stories with creative arts helps autistic children to concentrate when using the story.					
2)	Using social stories with creative arts improves the ability of autistic children to understand the story.					
3)	Using social stories with creative arts increases autistic children's capability to retain information.					
4)	Using social stories with creative arts enables autistic children to demonstrate their understanding of the story.					
5)	Using social stories with creative arts develops autistic children's ability to perform a desired					

	behaviour within the story.					
6)	Using social stories with creative arts encourages effective communication between instructors and autistic children.					
7)	Using social stories with creative arts motivates autistic children to engage with the story.					

Section (C) The way professionals use social stories with creative arts for children on the autism spectrum:

If you use social stories with creative arts, please indicate 'Yes' so that I can find out more. If you don't use them, please indicate 'No' to go to the end of the questionnaire.

Yes.

No.

*Please indicate the relevance of the items and provide any suggestions for item revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

1- What type of creative arts do you use with social stories? (Please tick as many as appropriate)

- Visual art.
- Drama.
- Music.
- Other.

If you selected other, please specify:

.....

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

2- What is the Intended impact of using social stories with creative arts? (Please tick as many as appropriate)

- Teach social skills.
- Introduce changes/new routines.
- Increase appropriate behaviour.
- Reduce inappropriate behaviour.
- Teach academic skills.
- Increase creativity.
- Personal hygiene.
- Dealing with emotions.
- Other.

If you selected other, please specify:

.....

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

3- When do you use creative arts? (Please tick as many as appropriate)

- Before using social story.
- During the use of social story.
- After using social story.
- Other.

If you selected other, please specify:

.....

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

4- How do you use creative arts? (Please tick as many as appropriate)

- To draw the whole social story.
- To draw some scenes of the social story.
- To role-play the whole social story.
- To role-play some scenes of the social story.
- To produce games and improvisation.
- To create a musical social story.
- To improvise elements of the social story.
- Background music.
- By changing the lyrics of a well-known song with social story information.
- Other.

If you selected other, please specify:

.....

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

5- What are the purposes of using creative arts? (Please tick as many as appropriate)

- Because autistic children enjoy and prefer using creative arts.
- To increase autistic children's ownership of a social story.
- To explain a scene of a social story that is not understood by autistic children.
- To encourage the repetition of social story.

Other.

If you selected other, please specify:

.....

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

6- Creative arts are produced/delivered by: (Please tick as many as appropriate)

- Teacher.
- Autistic child.
- Other non-autistic children.
- Puppets.
- Audio.
- Video.
- Other.

If you selected other, please specify:

.....

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

7- Did you notice any effects when using social stories with creative arts?

Yes.

No.

If yes, please give an example:

.....

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

8- Were the intended changes maintained?

Yes.

No.

If yes, for how long?

1-3 months.

3-6 months.

- 6-9 months.
- More than 9 months.

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

9- Did you experience any difficulties when using social stories with creative arts?

- Yes.
- No.

If yes, please give an example:

.....

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

10- How do you view the effect of using social stories with creative arts?

- Ineffective.
- Somewhat effective.
- Very effective.

*Please indicate the relevance of the question and provide any suggestions for revision. Ratings are 1) not relevant, 2) unable to assess relevance without item revision, 3) relevant but needs minor alteration, and 4) very relevant.

Not relevant	Unable to assess relevance without item revision	Relevant but needs minor alteration	Very relevant	Comments

The end of the questionnaire.

Thanks for completing the questionnaire.

Appendix (J): Pilot study quantitative results and discussion

1) Quantitative method:

Validity:

For the face validity, participants representing different professions such as teachers, researchers, curriculum developers, ABA specialists, lecturers, art coordinators, consultant/speakers, ABA consultants, clinical nurse specialists, autism practitioners and Intervention Coordinators took part. Different suggestions were provided by participants and experts to improve the questionnaire. These suggestions included adding other options, changing the wording of the items, clarifying meanings and breaking down some items into simpler sentences. Every recommendation was carefully considered, and necessary modifications were made to the questionnaire.

The Content Validity Index for the questionnaire was obtained from six experts in the fields of autism spectrum conditions and using the creative arts for individuals on the autism spectrum. The Content Validity Index (CVI) for the questionnaire was calculated for the I-CVIs and S-CVI/Ave. Most of the items and questions in the questionnaire showed an acceptable level of I-CVIs with 0.83 or higher (see Tables 1 to 4). However, two items showed I-CVIs with less than 0.78 (see Tables 1 and 4). These items were in section (B) part three item number four, and in section (C) question number ten, where two of the experts suggested that they needed major changes. The two experts' feedback pointed out that the meaning is not clear for item 4 in section (B) on part three. Only one expert commented on question 10 in section (C) stating that this question was too difficult to answer because there were too many factors to consider. These two items were revised before they were included in the final questionnaire.

The results of the S-CVI/Ave for the scale parts two and three were higher than 0.90, with averages of 0.93 and 0.92 respectively (see Tables 2 and 3). This was considered a valid value for the S-CVI/Ave. However, the scale part one showed a value of less than 0.90, with an average of 0.86 (see Table 1). Although all the items received a high value I-CVI, they still needed to be revised because of the low value of the S-CVI/Ave.

Table (1) Content Validity Index for section (B) part one

Item number	Number of experts agreement	I-CVIs
1	5	0.83
2	5	0.83
3	5	0.83
4	6	1
5	5	0.83
Total Agreement	1	
S-CVI/Ave		0.86

Table (2) Content Validity Index for section (B) part two

Item number	Number of experts agreement	I-CVIs
1	5	0.83
2	5	0.83
3	5	0.83
4	6	1
5	6	1
6	6	1
7	6	1
8	6	1
Total Agreement	5	
S-CVI/Ave		0.93

Table (3) Content Validity Index for section (B) part three

Item number	Number of experts agreement	I-CVIs
1	6	1
2	5	0.83
3	6	1
4	4	0.66
5	6	1
6	6	1
7	6	1
Total Agreement	5	
S-CVI/Ave		0.92

Table (4) Content Validity Index for section (C)

Question number	Number of experts agreement	I-CVIs
Q1	6	1
Q2	6	1
Q3	5	0.83
Q4	6	1
Q5	5	0.83
Q6	5	0.83
Q7	6	1
Q8	6	1
Q9	6	1
Q10	4	0.66

Reliability:

In order to analyse the reliability of the questionnaire, 30 questionnaires were completed (15 online through the Bristol online survey and 15 in hardcopy). The result of the questionnaire reliability was as follows:

For section (B), Cronbach's alpha value for the 5 items in part one was 0.645. This result was considered marginally reliable because it is lower than 0.70. An explanation for a low Cronbach's alpha value according to Tavakol and Dennick (2011, p.54) was that it "could be due to a low number of questions, poor interrelatedness between items or heterogeneous constructs". However, if item number 5 "helping autistic children to be motivated is important to engage them with social stories" was removed, the reliability will be improved to a higher alpha value of 0.717. The Cronbach's alpha values for the 8 items in part two was 0.892 and for the 7 items in part three it was 0.898. These alpha values are considered highly reliable.

For section (C), which included 10 mixed questions, six of which were multiple choice and four were yes/no answers. Findings showed that the of Cronbach's alpha values were:

- **Q6:** 0.657 (marginally reliable)
- **Q2:** 0.418, **Q4:** 0.450 and **Q1:** 0.140 (low reliability, < 0.60).
- **Q3:** -0.625 and **Q5:** -0.762 were negative values, and were therefore considered unreliable.

The reason for such low alpha values of for the questions in section (C) could be because only 8 participants completed this section. This number is insufficient when Cronbach's alpha is used. Johanson and Brooks (2010) and Hertzog (2008) suggest that the sample size for piloting any instrument is between 20 to 40 participants.

For the four-yes/no questions, the use of Cronbach's alpha for analyses was also inadequate. According to Vargas and Luis (2008, p.898), "Cronbach's alpha measures whether a group of items (or variables) is really related to a single construct or factor". Because the four-yes/no questions have only one variable for each question, Cronbach's alpha could not be used.

Appendix (K): Pilot study pretesting the interviews schedule

Introduction:

The interview session will start by:

- A. Welcoming and thanking participants for volunteering.
- B. Giving a brief overview of the purpose of the interview.
- C. Asking participants to introduce themselves.

Discussion questions for focus group interview:

* Please indicate the clarity of the meaning of each question (i.e. participants can understand what is being asked) and provide any suggestions for questions revision. Ratings are 1) not clear, 2) unable to assess clarity without item revision, 3) clear but needs minor alteration, and 4) very clear.

Questions	Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments
1- Can you tell me in your own words what is a social story?					
2- Do you think social stories are useful to use with autistic children? - Why? /Why not? - If 'Yes' - How? Can you give any examples?					
3- If you are working with autistic children using social stories what kind of things do you need to take into consideration?					
4- What factors motivate autistic children to engage with social stories?					
5- How do you understand the nature of change for autistic children when using social stories? - Can you give an example? - If you use social stories how do you evaluate change?					

* Please indicate the clarity of the meaning of each question (i.e. participants can understand what is being asked) and provide any suggestions for questions revision. Ratings are 1) not clear, 2) unable to assess clarity without item revision, 3) clear but needs minor alteration, and 4) very clear.

Questions	Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments
6- Do you think the creative arts can play a role in the education of autistic children? - Why? /Why not? - If 'Yes' - How? Can you give any examples?					
7- Do you think the creative arts can play a role when it is used with social stories for autistic children? - Why? /Why not? - If 'Yes' - How? Can you give any examples?					
8- How do you understand the nature of change for autistic children's when creative arts are used with social stories? - Can you give an example? - If you use social stories with creative arts how do you evaluate change?					
9- What are some of the challenges in using creative arts with social stories for autistic children?					

Discussion questions for individual interview:

Some questions for the individual interviews will also be developed from participants' discussion in the focus group interviews.

* Please indicate the clarity of the meaning of each question (i.e. participants can understand what is being asked) and provide any suggestions for questions revision. Ratings are 1) not clear, 2) unable to assess clarity without item revision, 3) clear but needs minor alteration, and 4) very clear.

Questions	Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments
1- Can you tell me in your own words what is a social story?					
2- Do you design your social stories or use prepared stories? Why?					
3- Can you tell me about some of your methods of working with social stories for autistic children?					
4- Why do you use this method?					
5- Do you assess your work formally or informally?					
6- What methods do you use to evaluate autistic children's comprehension of social stories?					
7- Do you think it is important to engage autistic children in creative arts activities? - Why? /Why not? - Can you give any examples?					
8- What do you think are the parallels between using creative arts with social stories and using only social stories for autistic children?					
9- What do you think are the differences between using creative arts with social stories and using only social stories for autistic children?					
10- How do you understand the nature of change for autistic children when using social stories with creative arts?					
11- In which situations do you think using creative arts with social stories can be most effective? Why?					

Discussion questions for diaries-based individual interview:

The questions will be related in part to the diary content and connected to the individual material, but key areas of attention will reflect the concerns of the focus group and individual interviews (and as such connect to the overall research questions):

* Please indicate the clarity of the meaning of each question (i.e. participants can understand what is being asked) and provide any suggestions for questions revision. Ratings are 1) not clear, 2) unable to assess clarity without item revision, 3) clear but needs minor alteration, and 4) very clear.

Questions	Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments
1-How the individual understands what a social story is.					
2- Their understanding of why they use their chosen methods.					
3- Their perspectives on using social story with creative arts for autistic children.					
4- In which situations they think using creative arts with social stories can be most effective.					

Conclusion:

- A. Ask if there is something to add.
- B. Thank participants for participation.
- C. End the interview.

Appendix (L): Pilot study pretesting the diary

Dear diary-writer,

Thank you for agreeing to keep a diary. This diary is particularly interested in your experiences of using social stories with creative arts for children on the autism spectrum.

* Please indicate the clarity of the meaning of each item (i.e. participants can understand what is being asked) and provide any suggestions for item revision. Ratings are 1) not clear, 2) unable to assess clarity without item revision, 3) clear but needs minor alteration, and 4) very clear.

Diary guidelines	Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments
Please return the diary within a week.					
Write about only one example of your experiences of using social stories with creative arts.					
Respond to the set of questions provided in the diary booklet that will help you to explain your practice.					
Write as many words, as you want.					
Write in a full sentence, but don't worry about grammar.					
The diary should be typed into a word document.					
Make it clear if you are using one or more types of creative arts with the same social story that you are writing about (e.g. are you only using drawing with social story or using drawing and music with social story).					
A space is left at the end of the diary for you to use if there is anything you would like to add related to your practice that the provided					

questions don't cover.					
Please send your completed diary to this email:					

Follow-up interview

A follow-up interview will be scheduled at a suitable time for you, which will be face-to-face or via Skype. The interview will aim to discuss some questions related to your diary.

Many thanks for your cooperation. If you have any questions please contact me via email:

If you know of anyone else who may be interested in taking part in the research, please pass on my contact details.

Rasha Bawazir

UCL Institute of Education

Please complete the following sections:

Section (A) Background information.

Name.....

Email.....

Country: (Please specify).....

Settings: (please tick)

- School:
- Clinic.
- Other (Please specify)

Job title: (please tick)

- Teacher.
- Special Education Teacher.
- Teaching Assistant.
- Therapist.
- Other (Please specify)

*Please indicate any changes in this section for revision:

Comments

Section (B) The diary, please answer the following questions:

*Please write as many words as you want for all the questions.

*Please indicate the clarity of the meaning of each question (i.e. participants can understand what is being asked) and provide any suggestions for questions revision. Ratings are 1) not clear, 2) unable to assess clarity without item revision, 3) clear but needs minor alteration, and 4) very clear.

1- What were your aims in using social story?

Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments

2- What type of creative arts did you use with social story?

Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments

3- What was the purpose behind using this particular type of creative arts with social story?

Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments

*Please indicate the clarity of the meaning of each question (i.e. participants can understand what is being asked) and provide any suggestions for questions revision. Ratings are 1) not clear, 2) unable to assess clarity without item revision, 3) clear but needs minor alteration, and 4) very clear.

4- How did you use this type of creative arts with social story?

- A) What did you do for preparation?
- B) Describe what you did during and after this practice?
- C) What was your role?
- D) What was the role of the autistic child?
- E) What strategies did you use to assess the autistic child comprehension of the story?

Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments

5- Did you notice any differences in the autistic child's behaviour?

C) During this practice.

D) After this practice:

- The maintenance of any intended changes.
- The generalisation of any intended changes.

Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments

*Please indicate the clarity of the meaning of each question (i.e. participants can understand what is being asked) and provide any suggestions for questions revision. Ratings are 1) not clear, 2) unable to assess clarity without item revision, 3) clear but needs minor alteration, and 4) very clear.

6- How do you describe your experience of using this practice?

C) What went well?

D) What was difficult?

Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments

7- Is there anything related to this practice that you would like to change in the future? Give an example? Why?

Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments

Please write any additional information that you would like to share concerning to this practice in this space.

Not clear	Unable to assess clarity without item revision	Clear but needs minor alteration	Very Clear	Comments

Thank you for taking part in the research.

Appendix (M): Pilot study qualitative results and discussion

2) Qualitative methods:

Two participants completed the feedback form rating the clarity of the meaning of the questions for the interview protocol and the diary. Based on the participants' feedback most of the questions' meanings were clear. However, the participants suggested changing the wording of some questions, to break them down into two separate questions, to make the meaning of the question clear, and to add additional questions. After analysing the feedback from each participant, necessary amendments were made for the interview protocols and the diary.

Appendix (N): Questionnaire section (B) participants' background information

Table (A1) Country

Country	Percent		Country	Percent
Australia	0.6%		Italy	0.6%
Britain	0.6%		Northamptonshire	0.6%
British	0.6%		Scotland	0.6%
Canada	1.3%		Slovenia	0.6%
England	25.2%		Spain	2.0%
Germany	0.6%		UK	63.5%
Great Britain	0.6%		Wales	2.0%
Greece	0.6%			

Table (A2) Setting

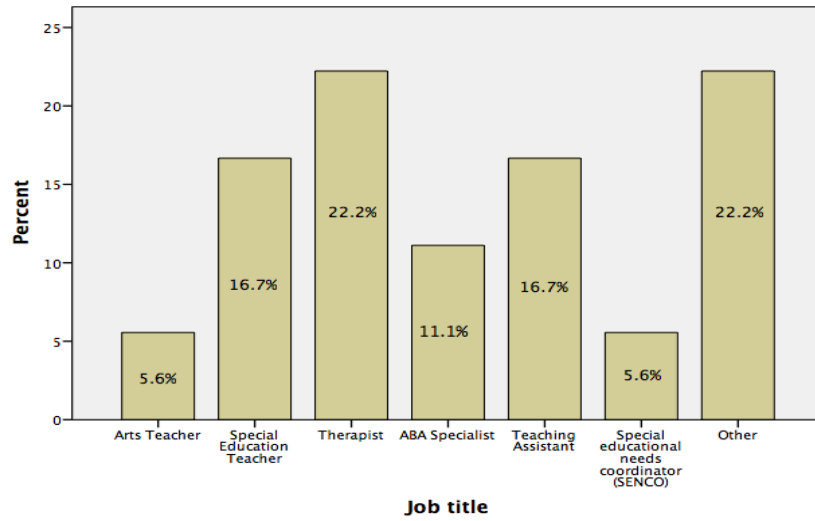
Setting	Percent
School	70.4%
University	0.6%
Home	1.9%
Health	11.3%
Social care	1.9%
Arts setting	0.6%
Other	13.2%

Table (A3) Job title

Job title	Percent
Arts Teacher	0.6%
Non-arts Teacher	1.9%
Special Education Teacher	27.0%
Therapist	15.7%
ABA Specialist	3.8%
Teaching Assistant	11.3%
Special educational needs coordinator (SENCO)	3.1%
Researcher	1.9%
Other	34.6%

Appendix (O): Questionnaire section (C) participants' background information

Bar chart (A4) Job title



Appendix (P): Questionnaire section (C) results

Q4. How do professionals approach the use of Social Stories with the creative arts for individuals on the autism spectrum?

Q4.1 What type of the creative arts do you use with Social Stories?

Table (A5) The type of the creative arts used with Social Stories

Types of the creative arts	Responses Percent (%)
Visual art	41.7%
Drama	13.9%
Music	19.4%
Dance	8.3%
Other	16.7%

Q4.4 When do you use the creative arts with Social Stories?

Table (A6) When are the creative arts used with Social Stories

When the creative arts are used with Social Stories	Responses Percent (%)
Before using Social Stories	23.1%
During Social Stories	46.2%
After using Social Stories	23.1%
Other	7.7%

Q4.6 Social Stories with the creative arts are delivered, produced and modelled by?

Table (A7) The ways Social Stories with the creative arts are delivered

Social Stories with the creative arts are delivered / produced / modelled by	Responses Percent (%)
Teacher	42.9%
An individual on the autism spectrum	14.3%
Non-autistic individual	14.3%
Other	28.6%

Q4.7 Social Stories with the creative arts are delivered by?

Table (A8) The ways Social Stories with the creative arts are delivered

Social Stories with the creative arts are delivered by	Responses Percent (%)
Puppets	36.4%
Audio	13.6%
Video	13.6%
Other	36.4%

Q4.8 Did you notice any effects or changes for individuals on the autism spectrum when using Social Stories with the creative arts?

Table (A9) the effects or changes when Social Stories are used with the creative arts

Effects or changes when Social Stories are used with the creative arts	Responses Percent (%)
Yes	77.8 %
No	11.1 %
I don't know	11.1%

Q4.8 (A) Were the changes Positive or Negative?

Table (A10) The nature of changes

Nature of changes	Responses Percent (%)
Positive	77.8%
Negative	-
I don't know	22.2%

Q4.8 (B) Were the changes maintained?

Table (A11) The maintenance of changes

Maintenance	Responses Percent (%)
Yes	50.0%
No	5.6%
I don't know	44.4%

Q4.8 (C) If yes, for how long were the changes maintained?

Table (A12) The duration of maintaining changes

The duration of maintenance	Responses Percent (%)
1-3 months	22.2%
4-6 months	-
7-9 months	-
More than 9 months	22.2%

Q4.8 (D) Were the changes generalised?

Table (A13) The generalisation of changes

Generalisation	Responses Percent (%)
Yes	22.2%
No	11.1%
I don't know	66.7%

Q4.9 How do you view the effect of using Social Stories with the creative arts?

Table (A14) The effect of using Social Stories with the creative arts

Effectiveness	Responses Percent (%)
Ineffective.	-
Somewhat effective.	50.0%
Very effective.	38.9%
I don't know.	11.1%

Q4.10 Did you experience any difficulties when using Social Stories with the creative arts?

Table (A15) Difficulties experienced with the use of Social Stories are with the creative arts

Difficulties	Responses Percent (%)
Yes	27.8%
No	61.1%
I don't know	11.1%