BA (HONS) LEARNING, DEVELOPMENT AND SUPPORT

Strategies for Supporting Children with Autism Spectrum Disorder within a Specialist Provision

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December 2018

Assignment Question

What are the most used strategies for supporting children with autistic spectrum disorder (ASD) within a specialist provision and how effective do practitioners believe these to be?

Abstract

The purpose of this research was to focus on the most effective strategies for supporting children with autistic spectrum disorder (ASD) and how these strategies should be implemented. Attention was focused on what individual strategies are proven to be most effective and in what way they can be used on a day to day basis to maximise the effect they have on the children. Questionnaires were used to gather a general overview across the school and interviews were also conducted to acquire a more in depth view of the perspectives of practitioners. Significantly, this research drew upon the conclusions of relevant theorists, to support any claims that were made as a result of the findings from this project.

Introduction

Autistic spectrum disorder (ASD) is defined as being a "lifelong developmental disability that affects how people perceive the world and interact with others" (National Autistic Society, 2018, Pg.1). It is estimated that around 1.8% of the UK population have ASD, meaning that finding an effective way to communicate with a person who has ASD is vital (Wharmby, 2018). Research into strategies to support people and children with ASD is ongoing and always being updated. Throughout this project I aim to find the most effective strategies to support people with ASD and how best they can be successfully implemented.

Working in a specialist school for ASD has ignited my interest into ASD in general. Being surrounded by children who have ASD on a daily basis has inspired me to enhance the depth of my knowledge, and hopefully that of the practitioners around me, to understand how they can be best supported and what strategies are most effective to aid their learning. As part of my job role, I have been fortunate enough to work with a variety of experienced practitioners, all who have different teaching styles, techniques and philosophies. As a result of these teaching styles I have been able to observe how they directly impact the children's learning and how effective a particular strategy or intervention has worked for a specific child.

The topic of ASD is one that has become more prevalent over the past decade. Diagnoses of ASD are increasing and as a result of that it is vital that teachers and practitioners in general, working with children, are aware of how best to support a child who has ASD. It is estimated that that nearly 2% of children in the UK education system have ASD, placing the pressure on practitioners to successfully implement effective strategies to support these children (Wharmby, 2018). It is my aim throughout this project to gather the views of practitioners on the most effective strategies to support children with ASD and compare their views to that of relevant literature.

It is argued that there is a significant gap in training on ASD for practitioners working in education, and a recent study found that fewer than five out of ten teachers feel confident when it comes to teaching a student with ASD (Gillan, 2017). As part of this project I aim to

gather the views and experiences of practitioners in a specialist school for ASD on how much training they have received and how useful this training was, in order to implement effective strategies to support children with ASD. In relation to children with ASD it is stated "With the right sort of support, all can be helped to live a more fulfilling life of their choosing" (Gillan, 2017, Pg.8), bearing this in mind it is therefore imperative, and the aim of this project, to understand further what this "right sort of support" looks like in terms of strategies to be implemented on a day to day basis.

There seems to be a gap in knowledge when it comes to supporting children with ASD and there is no general agreement on how a child with ASD learns best or what the best strategies for supporting a child with ASD are. Many strategies such as visual aids, multisensory approaches and preparing a child for change are argued to be beneficial for children with ASD and as a result of this study the aim is to understand if these strategies are in fact effective when supporting children with ASD on a day to day basis.

It has emerged recently that a national ASD strategy could be launched to provide practitioners with more support and a more consistent approach for supporting children with ASD. This is a contentious issue and causes some debate, as it has also been argued "there is no ready-made solution for supporting and teaching pupils on the autistic spectrum" (Dunlop et al, 2009, Pg.57). As a result of this controversy, I seek to gather the perspectives of practitioners in a specialist school on this topic to understand if a generic national approach would either benefit, or hinder effective strategies being implemented. The literature relating to the topics above will be discussed in the next chapter.

Literature Review

This section explores relevant theoretical knowledge relating to ASD with a particular focus on strategies for supporting children with ASD. First of all ASD in general and the prevalence of ASD will be discussed before moving on to discuss specific interventions and strategies which are used to aid children with ASD. Important topics such as consistency, differentiation and training will then be discussed in relation to these strategies before concluding whether or not a national framework for ASD would be of benefit to practitioners.

The History and Origin of ASD

The word 'autism' was first used in 1908 by Swiss psychiatrist Bleuler (1908), who used the term to describe one of his patients who had "withdrawn into his own world" (Mandal, 2018, pg.1). Bleuler (1908), derived this word from the Greek phrase "autos" and continued to use the word "autism" which he defined as "morbid self-admiration and withdrawn within self" (Mandal, 2018, pg.1). The next real breakthrough in autism came in 1943 and 1944 where Kanner (1943) and Asperger (1944) conducted studies into separate groups of children; both of these studies were not related to one another (Mandal, 2018). Through Kanner's (1943) research, he produced a seminal article called "Autistic Disturbances Of Affective Contact" in which he described 11 children who he had observed (Baron-Cohen, 2015). Kanner (1943) stated that these children did not have the social instinct to gravitate towards other people, some were "obsessed with objects" and he also stated that the children had a "need for sameness" and resisted unexpected change (Baron-Cohen, 2015, pg.1329). Asperger (1944) conducted a separate study into a group of children whom he acknowledged were "different" to Kanner's (1943) cohort, as Asperger (1944) observed that the children in his study had

good cognitive and linguistic skills and displayed typical development in the first three years of life (Barahona-Corrêa and Filipe, 2016). However in this study Asperger (1944) stated that the children he observed were characterised by social isolation, a narrow focus of interests and portrayed a subtle difference when using verbal and non-verbal communication (Barahona-Corrêa and Filipe, 2016). Unlike Kanner's (1943) work, Asperger's (1944) research was not discovered until 1981, until Wing (1981) published an article which brought the attention of Asperger's (1944) work to light. Wing (1981) compared the work of both Kanner (1943) and Asperger (1944) and from it she concluded that both Kanner (1943) and Asperger (1944) had discovered a real disorder, and they had identified the same disorder, albeit with minor differences (Gerrard, 2006). Wing & Gould (1978) were instrumental in autism research as they looked into children with social interaction problems in London (Gerrard, 2006). From this research Wing & Gould (1978) concluded that three impairments were prominent in the children, these impairments consisted of social interaction, social communication and imagination activities, these features are more commonly known as the triad of impairments and are still used in the modern day to help determine if a child has ASD (Gerrard, 2006). Wing (1981) concluded that due to the varying symptoms in individuals due to genetic differences and environmental factors, that symptoms of autism could present as dramatically different from one person with autism to another (Gerrard, 2006). This theory of difference within autism, and the vast possibilities of a range of characteristics being present, gave rise to autism being described as a "spectrum disorder", and the term autistic spectrum disorder encompasses both autism and Asperger's syndrome (Gerrard, 2006).

The Prevalence of ASD

The number of children identified as being on the ASD spectrum has increased significantly since the publication of the Warnock Report in 1978. A study in 2009 was completed to investigate the prevalence of ASD within UK schools. This research was conducted after reports estimated around 1% of the school population had ASD; however Baron-Cohen et al (2009) conducted this research to take account for undiagnosed cases of ASD. The study took place in Cambridgeshire and surveyed 11700 people in mainstream and specialist schools in the surrounding area (Baron-Cohen et al, 2009). Participants of this study were asked to complete a questionnaire pack including a diagnosis survey, the childhood autism spectrum test (CAST) and standardised questions about parental education and their socioeconomic status (Baron-Cohen et al, 2009). From this research it was concluded by Baron-Cohen et al (2009), which compared to 1978 when the Warnock report was published, there is nearly a 12 times increase in the prevalence of ASD, and it is estimated that it is in fact closer to 2% of all primary school children who have ASD, once undiagnosed cases were taken into account.

Wharmby (2018) agrees with Baron-Cohen et al (2009) research. Wharmby (2018) states that as well as undiagnosed cases, which Baron-Cohen et al (2009) suggested, the issue of gender plays a part in the rates of ASD being lower than they should be. It is stated that females who have ASD often go undiagnosed due to them presenting autism differently to males (Wharmby, 2018). Wharmby (2018) argues that females are much more adroit at masking the traits of ASD, so often appear to not have it. Wharmby (2018) estimates that around 1,260,000 people, or 1.8% of the population have ASD, which concurs with Baron-Cohen's et al (2009) estimate of between 1-2%. It is clear to see the prevalence of ASD from this research, which highlights ASD as a vital topic to be contemplated in UK schools. Strategies and interventions to help children with ASD will now be explored.

What Strategies Can Be Used To Support Children With ASD?

Visual Strategies

The first strategy which will be explored is the use of visual aids for children with ASD. Due to the complexity of ASD and the range of impairments which can be present in a child with ASD it is common for a child with autism to have difficulty understanding, retaining and using verbal communication (Hodgson, 1995) and it has been suggested, through research, that some people with ASD process information more effectively when a visual support, such as a timetable or symbol, is used (Quill, 1995). Rao and Gagie (2006) agree with Quill (1995) as they state that students with autism can often possess difficulties processing and understanding language, so visual strategies can be implemented to aid with daily routines, delivering lessons and managing behaviour.Grandin (1995), an iconic figure in the world of autism who has ASD has described how she, along with others who have ASD "think in pictures" and use visual strategies, such as visual timetables, symbols and social stories to help them retain information. Grandin (1995) recommended that teachers and parents should modify their environment and teaching strategies to this visual way of communicating as Grandin (1995) argues that this is of significant benefit to somebody with ASD. Bennie (2017) states that visual supports can be used for children with ASD in a variety of ways such as; to create daily and weekly schedules, show sequential steps in a task, aid communication, offer choices and also to provide a visual timetable to display the structure of the day. Devine (2016), who is an experienced teacher in a mainstream school, working with children who have severe learning difficulties (SLD) has stated the importance of providing a visual schedule for learners with ASD. Devine (2016) compares a visual schedule to a map on a train and maintains that it provides vital information about the day and allows the child to process the events and structure of the day, as well as associating words to symbols and pictures. Devine (2016) has been the finalist in the award for achievement in the Autism Professional Awards, after publishing her book "Colour Coding For Learners With Autism" to try and help practitioners supporting children with ASD in mainstream schools. Devine (2016) maintains the importance of using visual strategies such as visual timetables and symbols, to support children with autism and affirms how this visual information helps the child to mentally prepare themselves, reduces anxiety and helps to build trust between the practitioner and child. It is stated, that if visual strategies are differentiated for children and used consistently, they can provide assistance in many areas for a child with ASD, as well as enhancing the child's independence (Meadan et al., 2011)

A Multisensory Approach

The next strategy for supporting children with ASD which will be explored is a multisensory approach. The idea of a multisensory approach means to use two or more senses simultaneously during learning times so that one sense, possibly a stronger sense for the child with ASD, can reinforce the other sense which effectively uses a child's strength to help aid their weakness (Secor, 2018). It is stated and widely understood that children with ASD often have difficulty learning in traditional ways, due to their brains processing and comprehending information differently to that of a typical child (Rippel, 2018). Rippel (2018) argues that because all children with ASD learn differently, it is vital to teach every lesson using sight, sound and touch to ensure as many senses are being engaged to provide a child with the best chance of learning. Rippel (2018) provides an example for teaching a child with ASD spelling using a multisensory approach; she states that a magnetic whiteboard with moveable letters can be implemented whilst saying each letter and word out loud. Rippel (2018) also states that a child could use a tray of rice or sand and use their finger to trace the spelling of words; this provides the child with a multisensory approach, which Rippel (2018) argues to be most conducive to learning. Stevens (2012) also agrees with the multisensory approach for teaching children with ASD and states that this approach helps keep students with ASD engaged in

what they are learning. It is argued children with ASD find it challenging to concentrate and pay attention for long periods of time, which causes them to move more frequently. Stevens (2012) argues that by using a multisensory approach it enables the students to channel their urge to move, into the activity which they have been set, for example the child could be asked to move around the classroom to find an answer to a question. It is maintained, although multisensory approaches can be extremely beneficial for a child with ASD, the strategy needs to be tailored and differentiated, as every child with ASD responds and learns in a different way (Fleming, 2015).

Preparation for Change and Transition

The final strategy which will be discussed for supporting children with ASD is preparing them for change and transition. It is widely understood change, and especially unexpected change can cause high levels of stress and anxiety for children with ASD (Burner, 2013). It is believed children with ASD prefer to have a sense of structure so they can understand what to expect throughout the day and what will be happening at a specific time of the day (Burner, 2013). Burner (2013) argues that if children with ASD are not prepared for change, they can react by displaying repetitive behaviours, tantrums or aggression but maintains that this is a result of anxiety and possibly a frustration of not being able to communicate their emotions. Lovannone et al (2003) also believes children with ASD need a sense of structure and states that providing a predictable environment and routine is an important component of the classroom when teaching children with ASD. A survey conducted in 2016 asking children with ASD to make suggestions as to how teachers could best meet their needs, found students with ASD felt that it would be useful if teachers could help them cope with change and transition by just reminding them when a change was imminent (Saggers, 2016). Kluth (2017) agrees with Saggers (2016) and reiterates the importance of reminding a child, or the whole class, before a change or period of transition. Kluth (2017) also recommends providing the child with a visual timer, so they can manage time and understand when an activity is ending and expect something new to occur. Kluth (2017) suggests a child with ASD might benefit from using a transition aid, such as a toy, object or picture in order to provide comfort during times of change and transition. Fleming (2015) concludes that preparing children with ASD for change and transition can significantly decrease their stress and anxiety levels.

The strategies which have been discussed are argued to be beneficial for children with ASD; however the practicalities of implementing these strategies will now be explored within the controversial topics of training for practitioners and also the idea of a generic national framework being implemented.

The need for training practitioners

A recent study from the All Party Parliamentary Group on Autism (APPGA) found that fewer than five out of ten teachers feel confident teaching a student with ASD (Gillan, 2017). Additionally Gillan (2017) found that only one in four teachers who participated in this study had received any training on ASD whilst completing their teaching qualification. It is recommended, based on this study, due to the prevalence of ASD that "all teachers receive good quality autism training, including this in Initial Teacher Training (ITT) is an essential starting point" (Gillan, 2017, pg.13). Furthermore it is clear to see the impact which the lack of training has on young children with ASD as the study found that six out of ten young people with ASD felt that the main thing which would make school better for them is having a teacher who understands autism (Gillan, 2017). Dillenburger et al (2016) agrees with the idea that

more training on ASD needs to be provided for teachers. Dillenburger et al (2016) maintains that having well trained staff who understand ASD is fundamental to providing good quality services and education, and states that this need is usually because children with ASD require a higher level of support. However, Lever (2018) who is chief executive of the National Autistic Society argues that training doesn't need to be as intensive as maybe Gillan (2017) and Dillenburger et al (2016) believe. Lever (2018) does believe it is essential every teacher has a good understanding of ASD and how to teach students with ASD, but argues that teachers do not need to be experts on autism. Lever (2018) concludes that just by having a basic knowledge of ASD can allow the teacher to make simple adjustments to improve the environment for students with ASD. This knowledge could be something as simple as understanding that children with ASD need to be prepared before a change in routine, or allowing the child to have a quiet place to move to in times of crisis (Lever, 2018).

A Proposed National Framework for ASD

The idea of creating a generic national framework for practitioners to follow ignites controversy and debate. Gillan (2017) concluded from the study conducted by the APPGA that a "national autism and education strategy" needs to be implemented across the UK to provide training for practitioners and provide a specialist curriculum. Gillan (2017) argues that by implementing this framework it will allow practitioners across the UK to work in a more consistent, clear and transparent way when supporting children with ASD. However Dunlop et al (2009) would appear to disagree with Gillan's (2017) call for a generic national framework to be implemented. Dunlop et al (2009) states that "there is no ready-made solution for supporting and teaching pupils on the autistic spectrum" (Dunlop et al, 2009, pg.57). It is proposed that it is the role of the teacher or practitioner supporting the child with ASD to recognise individual strengths and attributes in each child, and use these to create a tailored approach for each child (Dunlop et al, 2009). Dunlop et al (2009) and Gillan (2017) however both appear to agree with Fleming (2015) in which they believe strategies for supporting children with ASD need to be delivered consistently, in order to have significant benefit for the child.

It is clear to see from the literature discussed that there are a range of strategies which theoretically, can be implemented to improve the support provided for children with ASD. This study will now examine if the strategies discussed here can be put into practice effectively. This will be done by conducting research in a sample school and comparing the views of practitioners working in a specialist provision to the literature discussed here.

Methodology

The origins of research can be traced back to the Ancient Greek era were Socrates (469-399 BC) stated that "Life without inquiry is not worth living for a human being" (Socrates 469-399 BC, Cited in Naidoo, 2011, Pg.47). From this statement it was determined that people believed they knew things that they did not, and this brought about a curiosity for people to inquire and use deductive or inductive reasoning in order to generate new knowledge (Naidoo, 2011). In modern day research there are two main methodologies used in order to generate new knowledge, consisting of quantitative and qualitative methods (Gunnell, 2016). The quantitative approach is traditionally a scientific method which focuses on statistics for data analysis (Gunnell, 2016). In contrast the qualitative approach, which is often used in social science, relies on descriptive information and the opinions of others which can then be thematically analysed (Gunnell, 2016). From these two methodologies a third approach has

been formed which is called mixed methods, this approach is a combination of both quantitative and qualitative methods (Gunnell, 2016).

The reasons for my chosen methodology are based around a number of key factors which will be discussed throughout this chapter. The main factor I needed to consider when choosing my approach, was to ensure that the research was going to be logistically achievable, meaning that I needed to ensure that the participants I wished to sample were accessible and willing to participate, yet still had relevant knowledge and experience so that the research was valid. I opted for the research technique of purposive sampling, meaning I, the researcher, used my own judgement when selecting participants (Sanders, Lewis & Thornhill, 2012). I made this decision based on the nature of my research, as I felt it was the method which would allow my research to be successful. The method of choosing a meaningful sample is advocated by Wyse (2007, pg.69) as he suggests "the sample depends on the kind of research you are doing and, like all aspects of the methodology, serves to help you meet your research objectives".

This research was carried out in a specialist school for children with ASD, the school provides education for children between the ages of 3 and 19 who have ASD. These students are placed based on their age into year groups, from early years foundation stage up to key stage 5. Within each class there is one teacher, one Higher Level Teaching Assistant (HLTA) and either one or two teaching assistants (TA) dependent on the level of need within that specific class. For the purpose of my research I wanted to gather the views of practitioners on the effectiveness of strategies to support children with ASD. It is for this reason I chose only practitioners who are based in classrooms and are in contact with children on a daily basis, as I believed this sample would consist of the practitioners who most frequently use strategies to support children with ASD.

For the purpose of this research I chose to follow a mixed methods approach. The term mixed methods refers to a paradigm of research which mixes both quantitative and qualitative data in a single project (Wisdom & Creswell, 2013). Once permission was given from my head teacher (Appendix 1), I decided that I would use and distribute a questionnaire (Appendix 2) with 13 individual statements, each asking for a response on the spectrum of 'strongly agree' to 'strongly disagree' in order to gather quantitative data. The questionnaire concluded with an opportunity for participants to add comments. In order to keep this study consistent and reliable I chose to give a questionnaire to a member of staff in every class, ranging from early years foundation stage to key stage 5. Using a purposive sampling technique, I selected a teacher in the first class, a HLTA in the second and a TA in the third and repeated this process throughout the 24 classes, to ensure an equal number of teachers, HLTAs and TAs were surveyed across the school. A covering letter (Appendix 3) was attached and sent out with each questionnaire to explain the purpose of the research. A total of 24 questionnaires were distributed across the five key stages and 19 were completed and returned, consisting of seven teachers, seven HLTAs and five TAs. Munn and Drever (1990) argue that there are four main advantages of using questionnaires in small scale research within a school environment. It is stated that questionnaires provide standardised questions which allow a consistent approach to be taken, they are an efficient use of time, they provide anonymity for the participant and they also provide the possibility of a high response rate (Munn & Drever, 1990). One limitation of using questionnaires is that "the information collected tends to describe rather than explain why things are the way they are" (Munn & Drever, 1990, Pg.13). However, I felt this limitation was not harmful to my research as I wanted to use questionnaires purely for

quantitative data, as I also chose to conduct interviews as a means to collect qualitative data for this mixed methods approach.

In order to gather more in depth views of practitioners on the most effective strategies to support children with ASD, I chose to conduct face to face interviews. It is stated that the rationale for using a purposive sampling technique is that the researcher assumes, based on their theoretical understanding of the topic, that certain individuals may have a different or important point of view of the topic in question and for this reason should be included in the sample (Mason, 2002; Trost, 1986). I chose a purposive sampling technique when selecting the participants for face to face interviews. A total of five interviews were conducted and this consisted of one practitioner from each key stage, ranging from early years foundation stage to key stage 5. Prior to conducting these interviews, an interview schedule (Appendix 4) was created and consisted of 10 open ended standardised questions, in order to maintain consistency. An information sheet (Appendix 5) was sent out to each participant explaining the purpose of the research and a consent form (Appendix 6) was signed by each participant prior to the interview taking place. I opted for face to face interviews instead of a focus group as Whorton (2016) argues focus groups can lead to bias and lead participants to be influenced. Interviews also ensured that I was able to spend 20 to 30 minutes with one individual in order to gather their views and opinions. McLeod (2014) argues that a limitation to the interview method is that it is time consuming. Within my research I overcame this limitation by keeping the number of interview participants to a minimum, hence why I selected only one member from each key stage. Interviews were arranged for appropriate and convenient times and lasted no longer than 30 minutes.

Quality Issues

In order to ensure that the research was of the highest quality possible two main elements were focused on; reliability and validity. Throughout the course of this project LJMU and BERA guidelines have been adhered to and ethical consent was gained from the institution.

In order to ensure reliability throughout this project a pilot study was undertaken prior to the research being conducted. A pilot study refers to a smaller version of a full scale study and is used to test a research method, such as a questionnaire or interview schedule (Van Teijlingen & Hundley, 2001). The main advantages of running a pilot study are argued to be that it assesses the feasibility of the study, it tests the research instruments prior to the study and it also identifies any logistical problems which may arise during the project (Van Teijlingen & Hundley, 2001). During the pilot study two questionnaires were sent out to participants in key stage 3. Upon receiving the completed questionnaires it was identified that the order of questions on the questionnaire needed to be changed from general questions to more specific questions in order for the participants to complete, without them becoming confused. This change was made prior to the full study being conducted.

Two of the main threats identified to corrupt the validity of research are argued to be the selection of the research sample and bias (Smith & Noble, 2014). In order to ensure validity in my results the sample size was selected in order to portray a cross section of the sample school. One member of staff was selected to complete a questionnaire from every class in every key stage and equal numbers of teachers, HLTAs and TAs were given a questionnaire. When conducting interviews one member of staff from each key stage was selected and

standardised questions were used in all questionnaires and interviews to ensure a consistent approach was taken and the risk of bias in the findings was reduced.

Overall a mixed methods approach was beneficial for this project as it enabled results to be triangulated and captured from more than one research instrument. The results obtained from both questionnaires and interviews will be presented in the next chapter.

Presentation of Data

I distributed 24 questionnaires to practitioners within the sample specialist school and received 19 back, almost 80%, which I felt was a positive return rate. After receiving the 19 questionnaires back, I decided to present my findings in the form of a bar chart (See figure 1 below). I chose to present my findings as a bar chart as the responses fell into a narrow range of categories, ranging from "strongly agree" to "strongly disagree" meaning that it was possible to display the data in this format.

Findings from the questionnaire

Figure 1

Practitioners Questionnaire Results
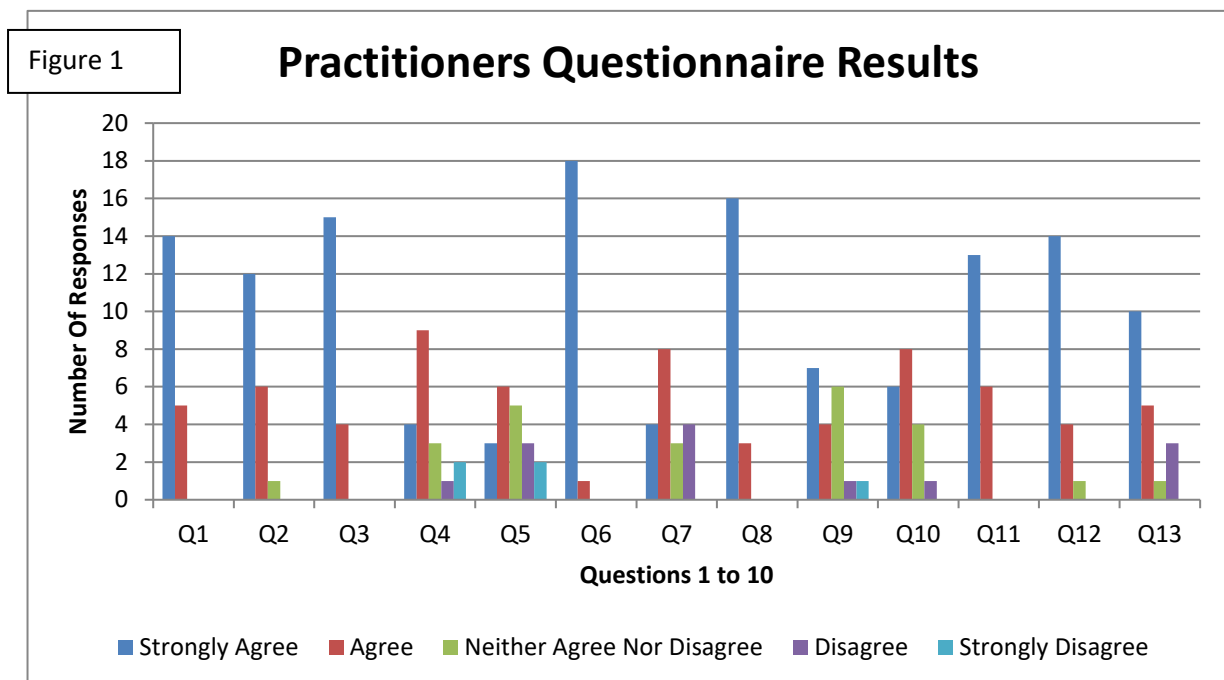
For the first statement "I feel children with ASD respond better to a multisensory approach" an overwhelming 100% of practitioners expressed their agreement to this by indicating that they either "strongly agreed" (74%) or "agreed" (26%). The second statement "I feel children with ASD respond better to visuals, such as visual timetables" also portrayed that the majority of practitioners either "strongly agreed" (63%) or "agreed" (32%) with this statement. The third statement "I feel children with ASD respond better to transitions in the day when they are prepared before them" provided similar results to the first statement, in the sense that a unanimous sample either "strongly agreed" (79%) or "agreed" (21%) with that strategy. Another interesting finding is that of the sixth statement "I feel strategies to support children

with ASD need to be differentiated and tailored for each individual child" as 95% of practitioners "strongly agreed" and the further 5% "agreed" with this idea. Statement eight "I feel that using strategies to support children with ASD enables them to have a greater chance at accessing the curriculum" provoked an overwhelming response with 84% selecting "strongly agree" and the additional 16% stating that they "agree". Statement 9 "I believe I would feel more confident supporting children with ASD if there was a generic national framework to follow for supporting children with ask" provoked the following response: 37% selected "strongly agree" and 21% selected "agree" with 32% selecting "neither agree nor disagree" and the remaining 10% selecting "disagree" or "strongly disagree". Statement 10 asked practitioners "I believe I would feel more equipped to support children with ASD if I received training on how to use and implement ASD strategies", practitioners responded by 32% selecting "strongly agree" and 42% affirming they "agree" whilst 21% did not have an opinion on the matter and only 5% selected "disagree". 68% of participants "strongly agree" and 32% agree to the 11th statement "I feel confident in using strategies to support children with ASD. Question 12 asked practitioners "I feel confident teaching/supporting children with ASD" and 74% stated they "strongly agree" with 21% selecting "agree". The final statement "I feel strategies used within this specialist provision would have an equal or greater effect if used for children with ASD in a mainstream setting" provoked a mixed response with 53% affirming they "strongly agree", 26% selecting "agree" and 16% stating that they "disagree".

Interview responses

In order to gather more in depth, qualitative responses I conducted five interviews, one with a practitioner from each key stage throughout the school. By writing down the responses during each interview I was then able to thematically analyse the data into themes which were consistently raised during the interviews. From these interviews it was clear to see that a multisensory approach, visual supports and preparation for transitions were all used to support children with ASD which compares with the results of the questionnaires. However from these interviews it was identified that practitioners often used a child's special interest and also ensured that structure and routines during the day were adhered to in order to effectively support children with ASD. A unanimous strategy that appeared throughout these interviews was the importance of consistency; practitioners felt that the strategies that are adopted need to be used consistently for that child in order to be effective and one participant stated "Using a consistent approach ensures the children know the boundaries of what's expected of them". Another key finding from the interviews was in the fourth question, asking if practitioners felt there were any barriers to implementing strategies in a specialist provision. The emerging themes for this question focused mostly on the low levels of staff and amount of resources that are available to use in school but also highlighted that the expertise of staff plays a part in how effectively strategies can be implemented. A final key finding was question seven which asked practitioners if they felt they had received enough training in order to support children with ASD to ensure each child has access to the curriculum. The response for this question highlighted that staff in this sample specialist school had received satisfactory training in order to "get them through the day", and that in fact most specialist knowledge and strategies have been picked up by working day to day in the school from more experienced staff. Question 9 "In the All Party Parliamentary Group on Autism (APPGA) report in 2017 it was proposed that a national autism education strategy for children could be launched, effectively providing a generic national framework to follow for supporting children with ASD. Do you feel this would be beneficial for children in a specialist provision" provoked mixed responses, as can be seen below:

"Yes, I feel it would be easier for the teachers to follow and it would be a consistent approach, however all children with ASD respond differently and strategies need to be differentiated."

"In theory it could be beneficial but ASD is so varied and each student is unique meaning strategies and learning needs to be differentiated."

"I feel it wouldn't be good enough in a specialist provision. For staff in mainstream who have littler knowledge or experience on ASD this would be beneficial as a starting point until they got to understand the child more."

"No because every child with ASD is different and strategies need to be differentiated based on the needs, communication and understanding of children. Autism it not a one size fits all so using a generic approach would not work"

The findings of these interviews and the questionnaires will be discussed in detail in relation to literature within the next chapter.

Discussion

Key findings from the research

Perhaps one of the most interesting findings from this study is that a large number of participants either "strongly agreed" (84%) or "agreed" (16%) that by using strategies to support children with ASD It enabled them a greater chance at accessing the curriculum. It was also interesting to find from the study that 19 participants concurred with the statement "I feel strategies to support children with ASD need to be differentiated and tailored for each individual child" with 95% of participants strongly agreeing to this and the further 5% agreeing. A comment was also made at the end of one questionnaire stating that "resources and the approach taken need to be specific to each child". This finding concurs with the view of Saggers (2016, pg.1) who states that "The use of flexible and individually tailored educational approaches is crucial. This requires that teachers have an array of adjustments and resource options which can be implemented both in and outside of the classroom environment". The suggestion of tailoring strategies for each child is also further supported by Dunlop et al (2009) who argues that it is the role of the practitioner supporting the child with ASD to recognise their strengths and attributes and use these to develop an individual approach for each child.

During interviews the following question was asked "How do you feel these strategies can be used most effectively to ensure children with ASD thrive in school" this provided an array of similar responses detailed below:

"Strategies need to be tailored to the child and used consistently."

"If they are used consistently throughout home and school life and also if the strategies are explained to students to ensure their effectiveness is maximised."

"Using a consistent approach ensures the children know the boundaries of what's expected of them."

A further comment was made at the end of a questionnaire stating "I think consistency is very important for pupils and the routines and structure of the day".

It is clear to see from the above comments that practitioners in this sample specialist provision believe that consistency is vital and helps to maximise the effectiveness of strategies to support children with ASD. These findings support the view of Meadan et al (2011) who argues

that if strategies, more specifically visual aids, are used consistently they provide a great deal of support for the child and also enhance the child's independence. Visual aids, a multisensory approach and preparing children with ASD for transitions will now be discussed in greater detail in relation to the findings of this study.

The effectiveness of visuals to support learners with ASD

Statement two on the questionnaire "I feel children with ASD respond better to visuals, such as visual timetables" provoked a one sided response with 63% of participants selecting "strongly agree" and another 32% selecting "agree". A comment stating "I feel a great benefit of using visuals and social stories with our pupils with ASD" was also written at the end of one questionnaire. The importance and effectiveness of visuals was also emphasised during the interviews as all five participants stated that they used visual aids and visual timetables to support students with ASD. Grandin (1995) would appear to support these findings and argues that visual aids are of extreme benefit to people who have ASD and maintains that teachers and parents of children with ASD should alter the environment and teaching strategies in order to facilitate a visual way of communicating. Furthermore Devine (2016) also agrees with the effectiveness of visual aids to support children with ASD and uses an analogy to compare visual schedules to a map on a train. Devine (2016) states that children with ASD respond to a visual schedule by processing the visual symbols and comprehending them in order to understand the structure of the day. Devine (2016) maintains that by using visual timetables and symbols it can allow a child to mentally prepare before a task and it also helps to reduce anxiety. It is clear to see from the results of the study that 95% of practitioners agree with the viewpoint of both Grandin (1995) and Devine (2016) that children with ASD respond effectively to visuals.

The effectiveness of a multisensory approach to support learners with ASD

The first statement on the questionnaire "I feel children with ASD respond better to a multisensory approach" received an indisputable response with 74% selecting "strongly agree" and the remaining 26% affirming that they "agree". These findings would be supported by Rippel (2018) who argues that children with ASD learn differently so it is vital to provide a multisensory learning environment in order to ensure as many senses are being engaged as possible to provide a child with the best chance of learning. Stevens (2012) appears to agree with Rippel (2018) and the views of practitioners in the study as he maintains that using a multisensory approach enables children with ASD a greater chance at participating in the lesson as it channels their energy into a learning activity. Furthermore, Secor (2018, pg.1) states that "multisensory approaches have shown promising results, enhancing learning and coping skills in many individuals with autism" but advocates that this approach needs to be adapted to "suit the individual needs of each person to whom they are applied".

The effectiveness of preparing a child with ASD before change and transitions

The third and final strategy that will be discussed is preparing a child with ASD for change. The third statement given out on the questionnaire was "I feel children with ASD respond better to transitions In the day when they are prepared before them" and provided a positive response with 79% selecting "strongly agree" and the remaining 21% affirming their agreement. There was also a similar response in the interviews as all five participants stated that they prepared a child before a change as a strategy to effectively support them. Perhaps these results are not surprising as it is widely acknowledged that people with ASD can become extremely anxious and stressed when presented with an unexpected change (Burner, 2013).

Lovannone et al (2003) would appear to concur with the findings of this study as Lovannone et al (2003) believes that children with ASD need a sense of structure and routine and states that providing a predictable environment is a vital strategy when supporting children with ASD. Further affirmation of these results can be deduced from a survey which was conducted in 2016 asking students with ASD how teachers can best support them and meet their needs, from this it was found that students felt it would be useful if teachers could help the cope with change by just reminding them when a change was going to occur (Saggers, 2016). Furthermore Kluth (2017) agrees with the notion of preparing a child for change and maintains the importance of reminding a child with ASD when a change is going to occur. Kluth (2017) also states that visual timers are beneficial to display to children when a specific activity is ending and something new is going to happen, this is a strategy that was found to be used in the sample school as four out of five practitioners interviewed stated they used visual timers.

ASD specific training for practitioners

The topic of training for practitioners raises debate and controversy. The statement "I believe I would feel more equipped to support children with ASD if I received training on how to use and implement ASD strategies" was given to practitioners via a questionnaire. This statement provoked the following response; 32% "strongly agree", 42% "agree", 21% "neither agree nor disagree" and 5% "disagree". A further comment on one questionnaire also stated "I believe training is essential to be able to implement strategies appropriately and to keep knowledge up to date". Furthermore more information was gained from the interviews as the question "Do you feel you have received enough training on strategies to support children with ASD in order to ensure each pupil has access to the curriculum", below are some responses from this question;

"Mostly I have learnt on the job and from experienced staff, most training given is inadequate and not specific enough to support children with ASD."

"I feel I have had adequate training to get me through day to day. The majority of my knowledge has come working in the school day to day and by communicating with other staff"

"No, I have acquired knowledge of ASD working day to day in schools prior to becoming a teacher and additional knowledge from theory during university and teacher training"

The findings from this study would appear to agree with a study conducted in 2016 by the All Party Parliamentary Group on Autism (APPGA) as it was found that fewer than half of teachers feel confident teaching a student with ASD (Gillan, 2017). Additionally from this study it was found that only one in four teachers had received ASD specific training, this is similar in comparison to the study in the sample school as 74% of practitioners agreed with the idea that they would feel more equipped if they received specific training on how to implement ASD strategies (Gillan, 2017). Dillenburger et al (2016) supports the idea that more ASD specific training is needed and states that having well trained staff who understand ASD are fundamental to providing good quality services and education. It has been suggested by the APPGA that a generic national framework could be implemented to enable practitioners to feel more confident in supporting children with ASD, this will now be discussed.

Would a proposed national framework for ASD be useful to practitioners?

As part of the questionnaire it was stated "I believe I would feel more confident supporting children with ASD if there was a generic national framework to follow for supporting children

with ASD", from this 37% selected "strongly agree", 21% selected "agree" whilst 5% selected "disagree" and a further 5% selected "strongly disagree". As a means of gathering further information surrounding this topic a similar question was also asked when interviewing practitioners provoking mixed responses, stating that it is a good idea in theory but most practitioners interviewed believed it would not be good enough to use in a specialist provision, but could serve a purpose for practitioners in mainstream schools. Gillan (2017) argues that by implementing a generic national framework it will allow practitioners in the UK to work in a more consistent, clear and transparent way when supporting children with ASD. However the views of practitioners interviewed in the sample school appear to conflict this view stating that "ASD is so varied and each student is unique meaning strategies and leaning needs to be differentiated". Dunlop et al (2009) would appear to disagree with Gillan (2017) and agree with practitioners in the sample school, stating that "there is no ready-made solution for supporting and teaching pupils on the autistic spectrum" (Dunlop et al, 2009, pg.57).

Conclusion

This research, looking at the most effective strategies to support children with ASD and gathering the views of practitioners on these strategies has enabled a reflection to occur on how best children with ASD should be supported and has meant there is a great deal to learn from these findings. Wharmby (2018) estimated that around 1.8% of our population has ASD which highlights the need for effective strategies to be identified in order to better support this percentage of people.

From this study it is clear to see that visual supports and aids are seen as a useful strategy when supporting children with ASD as 18 (95%) people in this study agreed with this. Grandin (1995), who believes people with ASD "think in pictures", would be in full agreement with this research as she promotes the use of visuals to communicate. It can only be recommended, by looking at the findings of this study and taking into account the views of both Grandin (1995) and Devine (2016) who states that visual schedules are vital for students with ASD, that visual aids should be used in order to support a child with ASD. Furthermore, if these strategies are differentiated for each child and used consistently they are argued to help a child with ASD in many ways and also help to develop their independence (Meadan et al. 2011)

Secondly, it can be concluded that a multisensory approach is an effective strategy for supporting children with ASD as 19 (100%) practitioners agreed that children with ASD respond better when this strategy is implemented. Rippel (2018) would advocate the findings of this research as he states that a multisensory approach is most conducive to learning and is beneficial to all students, not just those who have ASD, but can allow barriers to learning to be knocked down for those learners with ASD. Fundamentally, it is maintained that this approach if effective when supporting children with ASD but needs to be differentiated and tailored for each individual child (Fleming, 2015).

Finally, the need for preparing a child before a change or transition can be concluded as an effective strategy for supporting children with ASD. This study only affirms Baron Cohen (2015, Pg.1329) idea that children with ASD have a "need for sameness "as 19 (100%) practitioners in the sample school stated that children with ASD responded better when they were prepared for the change. Perhaps, it could be recommended for this approach to be adopted throughout

the education system in both mainstream and specialist provisions so children with ASD are better prepared and ready for change when it occurs.

The main conclusion from this research and the literature that has been studied is the need for implementing strategies consistently and differentiating them for each child. Dunlop et al (2009), Gillan (2017) and Fleming (2015) all agree that strategies, no matter how effective are only really beneficial when they are used consistently. This point of view has been reiterated from the findings of the study in the sample school as many practitioners commented on the need for consistency, one teacher stated "using a consistent approach ensures the children know the boundaries of what's expected of them", whilst another practitioner stated "strategies need to be tailored to the child and used consistently". Meadan et al (2011) perhaps hits the nail on the head when talking about visual strategies, as she states if this strategy is tailored for each child and used consistently it can provide assistance in many areas for a child with ASD as well as enhancing the child's independence. Fleming (2015) agrees with the perspective of Meadan et al (2011) and maintains that all strategies that are implemented should be differentiated for each child and used consistently.

As a practitioner in a specialist school working alongside children with ASD I am mindful of my privileged position to be able to observe these strategies being implemented first hand by expert colleagues. By recommending that these strategies are implemented consistently and individually for each child it enables them a much better chance at accessing the curriculum and the best chance possible of reaching their true potential. To conclude, whilst the small scale research conducted is not going to make ground breaking advances in the field of ASD I am confident that the new found knowledge will assist me, and practitioners around me to support children with ASD in a more effective way.

Overall I believe this research could be used to improve practice in the sample school by implementing strategies more consistently across the school and enabling strategies to be tailored for individual children. It would be recommended, as a result of this research for all practitioners supporting children with ASD to consider visual aids, a multisensory approach and preparing children for change as an effective strategy to aid their learning. Practitioners also need consider that strategies need to be used consistently and tailored to each child in order to be most effective.

Bibliography and References

Barahona-Corrêa, J. and Filipe, C. (2016). A Concise History of Asperger Syndrome: The Short Reign of a Troublesome Diagnosis. Frontiers in Psychology, 6.

Baron-Cohen, S. (2015). Leo Kanner, Hans Asperger, and the discovery of autism. The Lancet, 386(10001), pp.1329-1330.

Baron-Cohen, S., Scott, F., Allison, C., Williams, J., Bolton, P., Matthews, F. and Brayne, C. (2009). Prevalence of autism-spectrum conditions: UK school-based population study. British Journal of Psychiatry, 194(06), pp.500-509.

Bennie, M. (2017). Visual supports for autism: a step by step guide. Autism Awareness Centre. [online] Available at: https://autismawarenesscentre.com/visual-supports-best-way-use/ [Accessed 24 Oct. 2018].

Burner, K. (2013). Autism and Dealing With Change. The Autism Blog. [online] Available at: https://theautismblog.seattlechildrens.org/autism-and-dealing-with-change/ [Accessed 26 Oct. 2018].

Devine, A. (2016). Ten strategies to help your autistic students. Sec-Ed. [online] Available at: http://www.sec-ed.co.uk/best-practice/ten-strategies-to-help-your-autistic-students/ [Accessed 17 Apr. 2018].
Dillenburger, K., McKerr, L., Jordan, J. and Keenan, M. (2016). Staff Training in Autism: The One-Eyed Wo/Man…. International Journal of Environmental Research and Public Health, 13(7), p.716.

Dunlop, A., Tait, C., Leask, A., Glashan, L., Robinson, A. and Marwick, H. (2009). The Autism Toolbox. National Centre For Autism Studies.

Fleming, B. (2015). Choosing Autism Interventions. Pavilion.
Gerrard, S. (2006). Models of autism. [online] Available at: http://www.scm.keele.ac.uk/research/knowledge_modelling/km/blog/files/autism.pdf [Accessed 23 Oct. 2018].

Gillan, C. (2017). Autism and education in England 2017. All Party Parliamentary Group on Autism.

Grandin, T. (1995). Thinking in pictures and other reports from my life with autism. New York, NY: Doubleday.

Hodgdon, L. A. (1995). Visual strategies for improving communication. Troy, MI: QuirkRoberts.

Iovannone, R., Dunlap, G., Huber, H., & Kincaid, D. (2003). Effective educational practices for students with autism spectrum disorders. Focus on Autism and Other Developmental Disabilities, 18, 150-166.

Kluth, P. (2017). Supporting Students with Autism: 10 Ideas for Inclusive Classrooms. Reading Rockets. [online] Available at: http://www.readingrockets.org/article/supporting-students-autism-10-ideas-inclusive-classrooms [Accessed 26 Oct. 2018].

Lever, M. (2018). Back to school: What teachers need to know about autism. National Autistic Society. [online] Available at: https://www.autism.org.uk/get-involved/media-centre/news/2018-08-29-teacher-training.aspx [Accessed 27 Oct. 2018].

Mandal, A. (2018). Autism History. News Medical. [online] Available at: https://www.news-medical.net/health/Autism-History.aspx [Accessed 23 Oct. 2018].

Mason, J. (2002). Qualitative researching, 2nd Edition. London: Sage

Meadan, H., Ostrosky, M., Triplett, B., Michna, A. and Fettig, A. (2011). Using Visual Supports With Young Children With Autism Spectrum Disorder. Teaching Exceptional Children, 43(6), pp.28-35.

Munn, P. and Drever, E. (1990). Using Questionnaires in Small-Scale Research. A Teachers' Guide.. Scotland: Scottish Council for Research in Education.

Naidoo, N. (2011). What is research? A conceptual understanding. African Journal of Emergency Medicine, 1(1), pp.47-48.

National Autistic Society. (2018). National Autistic Society. [online] Available at: https://www.autism.org.uk/about/what-is/asd.aspx [Accessed 30 Nov. 2018].

Quill, K. A. (1995). Teaching children with autism: Strategies to enhance communication and socialization. Albany, NY: Delmar

Rippel, M. (2018). Teaching Reading and Spelling to Autistic Children. All About Learning Press, [online] 161. Available at: https://blog.allaboutlearningpress.com/teach-reading-autistic-child/ [Accessed 25 Oct. 2018].

Saggers, B. (2016). Supporting students with autism in the classroom: what teachers need to know. The Conversation. [online] Available at: http://theconversation.com/supporting-students-with-autism-in-the-classroom-what-teachers-need-to-know-64814 [Accessed 18 Apr. 2018].
Saunders, M., Lewis, P. & Thornhill, A. (2012) "Research Methods for Business Students" 6th edition, Pearson Education Limited

Secor, M. (2018). Autism Multisensory Approaches. Autism Love To Know. [online] Available at: https://autism.lovetoknow.com/Autism_Multisensory_Approaches [Accessed 21 Nov. 2018].

Secor, M. (2018). Autism Multisensory Approaches. Love To Know. [online] Available at: https://autism.lovetoknow.com/Autism_Multisensory_Approaches [Accessed 25 Oct. 2018].

Smith, J. and Noble, H. (2014). Bias in research: Table 1. Evidence Based Nursing, 17(4), pp.100-101.

Stevens, A. (2012). What is the Best Way to Teach Students with Autism How to Read?. Reading Horizons. [online] Available at: https://www.readinghorizons.com/blog/post/2012/04/13/teaching-autistic-students-that-struggle-with-reading [Accessed 25 Oct. 2018].

Trost, J.A. (1986). Statistically non-representative stratified sampling: A sampling technique for qualitative studies. Qualitative Sociology, 9, 54-57.

Van Teijlingen, E. and Hundley, V. (2001). The importance of pilot studies. Social Research Update, University of Surrey.

Wharmby, P. (2018). Just How Many Autistic People Are There In The UK, Anyway?. Huffington Post.

Whorton, K. (2016). Qualitative Interview Pros and Cons. [online] Available at: https://www.asaecenter.org/resources/articles/an_plus/2016/january/qualitative-interview-pros-and-cons [Accessed 11 Nov. 2018].

Wisdom, J. and Creswell, J. (2013). Mixed Methods: Integrating Quantitative and Qualitative Data Collection and Analysis While Studying Patient-Centered Medical Home Models. Agency for Healthcare Research and Quality.

Wyse, D. (2007) Teaching English, Language and Literacy.