

What is the impact of teaching play to young children with Autism Spectrum Disorder?

Introduction and Rational

“Early years are vital for all children’s learning, but particularly for those with special educational needs. For children with Autism Spectrum Disorder, early intervention together with appropriate teaching and management will help develop critical social, communication and play skills” Hannah (2001:7)

Within Early Years settings it is important that effective interventions are in place to ensure that children presenting with Autism Spectrum Disorder (ASD hereafter) alongside all other children are able access all that Early Year’s education can provide. As such, quality interventions and teaching strategies need to be researched to ensure that appropriate interventions are available. Charman et al (2011) as cited by Fredrickson and Cline (2015:305) emphasize that core principles of good practice in autism education “embed specialist, evidence informed approaches to quality-first teaching practice to remove barriers for pupils on the autism spectrum”. The following action research will explore an intervention that promotes play skills; and evaluate its value as a teaching resource for very young children who have been diagnosed with ASD.

The setting that is the focus for this Action Research is a resourced nursery school which has 16 resourced places for children with severe and complex needs. As such, the school has a higher than average child to staff ratio. The staff within the setting have training to support young children with emerging additional needs. Early Education (2015:4) reinforce the importance of maintained nursery schools by explaining that;

“As a consequence of local authority referrals, they support higher than average concentrations of children with Special Educational Needs and Disabilities and share their expertise in early identification and support with other settings”.

Therefore, it is imperative that resourced nursery schools continue to access and implement the most effective provision and research intervention groups that best support children with Special Educational Needs and Disabilities (SEND hereafter). As a Special Educational Needs Co Ordinator (SENCO hereafter) within a resourced setting I sought to extend the range of good quality and impactful intervention available. With a large proportion of children, within this cohort diagnosed with ASD, I wanted an intervention that was relevant and appropriately targeted to this group.

I discovered Identiplay through researching and observing provision carried out in other similar resourced nursery schools. One nursery reported that Identiplay was an effective tool in supporting the development of children with ASD. This intervention was created by Phillips and Beavan and they originally published a book in 2007 promoting Identiplay. This approach is an adult lead teaching strategy that focuses on teaching children with ASD play skills.

Conducting this Action Research will allow a thorough analysis of a target group (nursery aged children with ASD) and the impact on this cohort within a resourced nursery school. Macintyre (2000:1) states “Action Research is an investigation” and emphasises that educational research requires rigor and an element of self-appraisal. By applying both rigor and the ability to reflect on the research around this specialist provision it can determine whether this is an intervention worth promoting both within the school and beyond.

It is imperative within the Early Years that we ensure all children have the support they need and recognise this support can vary. Hence, when implementing this intervention, it is important to analyse how and if it supports the development of the targeted child or group. Does this intervention impact sufficiently on the children’s development?

To break down the research further I will investigate:

- Will children who have a diagnosis of ASD learn how to play?
- Will this have a positive impact on their development?
- And, will it improve their progress within the Early Year’s curriculum?

Literature Review

According to the National Autistic Society (2016)

“Autism is a lifelong developmental disability that affects how people perceive the world and interact with others.”

They also state that presently there are around 700,000 people in the UK living with this condition.

The term Autism was first coined by Blueier in 1919 while he was researching schizophrenia: the word is derived from the Greek ‘autos’ meaning alone. Kanner in 1943 (cited in Frith1991:93) published an account of eleven children with abnormal behaviour which he called Early Infantile Autism and attributed the term autism to describe these children. Kanner noticed a number of characteristics that these children had in common which was cited in Frith (1991:93-94). He describes the characteristics as précised below as being:

- A profound lack of effective contact with others
- An anxiously obsessive desire for sameness
- A fascination for objects
- Mutism or language that does not tend to serve interpersonal communication, and
- Good memory and islets of ability.

Asperger in 1944 (cited in Frith1991) at a similar time historically but independently of Kanner, wrote a paper called, Autistic Psychopathy in Childhood. He described three children with fundamental disorders that affected all expressions of their personality. Both Kanner and Asperger were fundamental in identifying this condition and are

credited with being the first to clinically describe ASD. Their research is still of great value as it has contributed to a later diagnostic tool. However, as noted by Williams (1996:7) it is a condition that, “was around long before all manner of professionals cropped up to study it”. Wing and Gould 1979 (cited in Wearmouth 2016:92) identified the triad of impairments which is still the basis for current diagnosis. Both Kanner and Asperger’s work was vital as it enabled people with this condition to have their difficulties described and provided a basis for further research. This has led to development of support for people diagnosed with this disorder.

Currently, ASD is diagnosed as a pervasive developmental disorder and the current criteria as stated by the International Classification of Diseases - 10. states that Childhood Autism presents as the child having problems with:

- Reciprocal social interaction,
- Communication, and
- Restricted, stereotyped repetitive behaviour.

In 2013 Autism and Asperger’s syndrome were put under the same umbrella as Autism Spectrum Disorder, where previously, they were seen as separate disorders.

People with ASD struggle with social interaction, this can lead to them often being perceived as being loners. Higashida as a 13-year-old boy, with ASD, wrote (2007:47) “Ah, don’t worry about him he’d rather be on his own”. He went on to explain that this was not the case, and it was not desirable for him to be alone. Unfortunately, he did not have the ability to express this to others. He was a non-verbal child who was able to communicate his experiences of living with his condition. This was done by pointing to visuals of the Japanese alphabet. This quote highlights the importance of ensuring that targeted support is being put in place to negate a stereotype of children with ASD. He states that no human being really wants to be on their own, even though it can appear that they do. Therefore, providing an intervention that may help children to communicate in different ways and play like their peers must have value.

Desha et al (2003:22) and Phillips and Beavan (2012:4) state one of the features attributed to children with ASD are difficulties in play. Wolfberg (1999:35) highlights, that children can first show signs of the condition in the early stages of their life when they show a lack of shared attention with caregivers during play. Phillips and Beavan (2012:4) explain that children require a certain amount of flexibility in behaviour and thought, and deficits in these areas may account for their difficulties in play. Desha et al (2003:39) highlight that children with the condition engage in more functional play and that symbolic play was hardly present. Wolfberg (1999: 49) defines functional play as simple pretence and symbolic play as advanced pretence. These are the types of play most prevalent in nursery aged children.

Desha et al (2003:39) propose that as children require flexibility of thinking to be able to play and more so for symbolic play. The deficit in this area, which is evident in autism, may explain why they engage in predominantly functional types of play with symbolic play featuring less. This suggests that symbolic play is to some extent arrested and requires higher order cognitive development. The rationale for creating opportunities and scaffolding play are based upon research conducted by Sherratt and

Peter (2002) (cited in Phillips and Beavan 2012:5) and Wolfberg (1999) that children require direct teaching of object function and toy use, and that more structured teaching of play is required. Phillips and Beavan (2012:5) emphasise that within Early Years settings where play is an intrinsic part of yearly childhood development, children who have these difficulties linked with play skills need to develop them. Additional structured teaching of play is thus a necessity.

Play is an intrinsic part of child development. Article 31 of the United Nation Convention on the Rights of the Child (1989) state that all children have a right to “play and rest”. Wolfberg (1999:24) notes that “under less optimal conditions and even in the face of adversity the child’s impulse to play endures”. Learning through play is part of the Statutory Framework for the Early Years Foundation Stage (2017:9). It states that, “Play is essential for children’s development, building their confidence as they learn to explore, to think about problems, and relate to others”. Desha et al (2003:22) cited Schaefer et al (1991) as expressing the importance of play as it is “providing a minimally threatening arena in which children are able to demonstrate strengths and weakness”. This explains why Early Years practitioners observe play as part of their assessment of children to discover where children are achieving developmentally. This is recommended by Early Years Matters (2012:3). They recommended that children are first observed and baselined as they ‘act and interact in play’.

Children with ASD demonstrate functional play with objects. Wolfberg (1999:36) makes a distinction between simple pretend play, where the child plays with the simple features of the toy, and advanced pretend play where the child plays more symbolically with toys. When engaging with more advanced play they create a script or multiple play scripts for their play. She notes that if a child with ASD can transition from simple pretend play to advanced pretend play through the use of more advanced play, it can help them understand the mental states in others. This is a developmental stage worthy of pursuing even in the absence of current research.

Wolfberg (1999:38) reaffirmed that children with ASD demonstrate repetitive play in social isolation when left to play freely. She also noticed that children with this condition also have a propensity to demonstrate functional play with objects. Researchers in play often emphasise that play should be fun, child centred, and child initiated. This assertion does offer an alternative view to setting up play scenarios and modelling play. But here lies a juxtaposition! If a child with ASD does not engage in play, and teaching play is not play, how are these children supposed to learn how to play? And how do they gain the benefits of play such as increased development of memory, logical and abstract thought as proposed by Vygotsky (as cited by Prithvi 2013:64)? Prithva also emphasises that there is still a limited amount of research on this subject. Therefore, further research is required.

Frederickson and Cline (2015:302) highlight how “a range of provisions and interventions should be available” to those teaching children with ASD. They looked at good practice guidance from Scotland, Ireland and Australia. The guidance all recommended there be a variety of responsive services to support children with ASD. The Code of Practice: 0 to 25 years Department for Education (DfE) and Department of Health (DoH) (2015:85) insists that, “It is particularly important in the Early Years

that there is no delay in making any necessary special educational provision". This document also states that any provision should be kept under review and based on the best possible evidence. This Code of Practice highlights the importance of continuous review of the provision implemented and how regular assessment of impact is necessary. The constant review of practice fits in with the graduated approach, which was put in place according to Nasen (2014:2) to, "remove barriers to learning and put effective special educational provision in place". Therefore, it is the responsibility of the SENCO to find effective ways to support all children's learning. Additionally; to increase pupils' ability to develop skills in line with all children, and to ensure that the provision provided is suitable and effective.

An intervention that promotes individualized teaching of play, does however run counter to thinking around inclusion. Yet, the definition of inclusion by UNESCO (2017) states inclusion as, "a process that helps to overcome barriers limiting the presence, participation and achievement of learners". Individualized intervention delivered one to one in a separate space is not inclusive, by its nature it singles out the child. However, for this type of intervention to be effective, the children need as little external stimulus as possible. This is not practical within a busy mainstream nursery classroom and needs to be conducted in a distraction free environment to be effective. This can be offset if all other interventions to support children with SEND are inclusive and the setting has an existing ethos of inclusivity. Early Years: guide to the 0-25 SEND Code of Practice (2014:9) ask two things of educational providers to "use their best endeavours to make sure that a child with SEND gets the support they need and ensure that children with SEND engage in the activities of school alongside children who do not have SEND". To extend this concept of inclusion, we must also consider that any intervention that does occur outside or exclusive from inclusive practices, can also have some further therapeutic value. Grandin and Panek (2014) in their book, *The Autistic Brain*, provides this idea graphically when Temple Grandin provides an autobiographical example of her early childhood experience when she took part in turn taking games with her nanny and had intensive 1:1 speech therapy. She noted how this resembled modern day behaviour therapy. This example highlights an incidental benefit to this less than inclusive practice.

The intervention I wish to research 'Identiplay' is an adult directed strategy. Nind (1999) cited in Wearmouth (2016: 94) made the point that much of the literature showed that children with ASD do struggle to learn from natural interactions. TEACHH and Lovaas techniques also rely on directed teaching approaches. Identiplay also involves direct teaching away from the classroom, providing the best possible support for the few minutes the intervention takes place. They can then engage alongside their peers when learning inclusively for the rest of their session.

The proposed research intervention 'Identiplay' was developed by Phillips and Beavan (2012) who amalgamated research to create a learning program to support children with ASD to learn to play. Part of their research was based on a study by Thomas and Smith (2004) and their pilot study focused on developing play skills for children with ASD. Thomas and Smith (2004) felt this was an under researched area and orchestrated a two-week study focused on three children. They also recommended further extensions on their research. Two possible areas I can expand upon are increasing the sample size and the duration of the intervention period. Thomas and Smith (2004) found that children included in their intervention increased the amount of

time they played with the toys used in the intervention and used the scripts as a basis for their free play. Additionally, they found the children who took part in this study increased their verbal communication. In conjunction, Libby et al (1997) (as cited by Thomas and Smith 2004:202) found that this teaching enabled the children to gain the confidence to play with something new.

Therefore, the research question for this study aims to add further gravitas to the findings by Thomas and Smith (2002:196)

- Does the intervention increase specific play-based behaviours?

In order to ensure this Action Research is of current benefit to the children within the Early Years setting the second research question is:

Does the intervention improve the child's development within the Early Years Curriculum areas of?

- Communication and Language,
- Personal Social and Emotional Development, and
- Imagination.

Methodology and Methods

Participants

The proposed research sample includes a cohort of ten children. Eight have a diagnosis of ASD and two are awaiting diagnosis. Their needs are such that they either have an Educational Health Care Plan in place or are in the process of being assessed for a Plan. The children's ages vary between two and four years. There are six boys and four girls the ratio of boys to girls 3:2 This gender percentage does not reflect the National Autistic Society's (2015) statistics. Their ratio of boys to girls within their Charity schools is 5:1.

The age range is from two years to five years. Two of the children are two years old, six are three years old and two are five years old during the implementation of the intervention.

Fredrickson and Cline (2015:283) highlighted that there is a wide variety within the ASD classification triad, and people present with different manifestations of difficulty. The children within this participant group do have a variety of skills and difficulty. This is highlighted by their different levels of language ability, with six children currently being non-verbal, three having a limited vocabulary but no reciprocal language and one having delayed language.

This variety of difficulty extends to their varied ability to socially interact. They present with differing repetitive behaviours such as hand stymying, jumping and lining up toys. A spectrum of social interaction differences can be observed, from children having no interest or perceived awareness of other children to those that show an obsessive interest in other children.

Process

Each participant will be included in an individual, Identiplay session each day they are in school. It will be conducted primarily by their Key Worker who has undergone training on the delivery of the scheme. As the researcher, I intend to deliver the intervention once a week to each participant thereby ensuring consistency of provision. This is done without the Key Worker due to pressures on staffing but in order to remove anxiety for the child it will be done at a similar time within the session and in the same place. There is an existing relationship with myself and the children, as I have already worked with them on other intervention groups. Therefore, conducting this intervention should not appear to be an unusual or unsettling event for the child.

Each session will take at least five minutes, the Key Worker and the participant will sit side by side at a table divided into two halves using a line of coloured tape. On each side of the line there will be a set of identical toys. A corresponding printed play script from Phillips and Beavan (2012) will also be provided. This script gives simple language ideas and a recommended lay out of the toys. Initially the practitioner will lead the play until such a time the child shows independent interest and then the Key Worker will follow and extend their play. This intervention is to be conducted over four weeks. There are five different play sets and accompanying play scripts with identical toys from which the Key Worker can choose based on knowledge of their key child's personal interest.

The Key Workers have been instructed to use simple language but also to project fun and excitement in their voices. This was also recommended by Sherratt (1999) (as cited in Thomas and Smith 2002:196)

Data Gathering

In order to fully answer the Action Research questions, different methods of data gathering will be used. Research uses two distinctive categories of data analysis quantitative and qualitative. Koshy (2005:86) and Cohen et al (2007:501) both emphasis equality of importance for both classifications of data gathering. Kemmis and McTaggart (2005:279) affirm that "Classroom action research typically involves the use of qualitative interpretive modes of inquiry and data collection".

Quantitative data is used to describe numerical data gathered and analysed using statistics. The data generated, within this study, is created by the developmental progress of the children. Each level of progress is given a numerical score. This is generated by rating their assessed developmental ability, this developmental ability is scored against pre-prescribed age bands. These developmental age bands are subdivided into low middle and high, and each subcategory is given a numerical ranking of one. This numerical ranking is based on an existing method of collecting assessment data on all pupils. This data will be analysed using descriptive statistics. It will test the hypothesis that introducing Identiplay increases the developmental progress of the participant group within the curriculum areas of Communication and Language, Personal Social and Emotional Development and Imagination from the specific area Expressive Art and Design.

Qualitative data can appear in different forms, and for this research observations of videos of the children at self-initiated play will form this data. The observations will be assessed against themes influenced by the research conducted by Thomas and Smith (2004) and on differing levels of play influenced by readings about types of play by Phillips and Beavan (2012) and Wolfberg (1999) who described a distinction between functional play and symbolic play. Cohen (2007:461) emphasises that it is imperative that the principle 'fitness for purpose' is used. I have interpreted this as ensuring that the data generated is intended to answer the research question and to maintain focus. Their play will be observed before the research project has started and at the end of the research intervention. The videos will be of the children's self-initiated play This play will then be analysed and described to discover any impact from the intervention. It will be used to discover if there is an increase in the children's play behaviour. Koul (2008:2) emphasises that data should be gathered with accurate observation, so the videos will be analysed at timed intervals. A judgement about the children's play will be made every three seconds and recorded. This is to ensure that the judgments are based on regular observations and that it is the same for each child.

The quantitative analysis that is being generated is part of an existing assessment conducted within the school. This reflects how most children are assessed within the Early Years. The assessment is carried out for many reasons for example; to assess the individual ability of the child to respond to the current teaching and learning being delivered within the school. The children within this research cohort are assessed in further detail using an Early Years Developmental Profile. This assessment tool is regularly used for children who are identified as having slower rates of development due to an additional educational need. All the children within this research group are assessed using this assessment tool. The Early Years Developmental profile it was developed using the following existing assessment tools:

- Portage assessment materials
- Early Years Outcomes
- Islington Council and Whittington Health NHS Every Child a Talker Assessment Sheet
- The Corfield Early Years Foundation Stage Assessment documents
- The Luton Special Educational Needs Developmental Assessment
- The Sensory Developmental Profile, and
- The Communication and Language 0-5 Developmental Checklist and Assessment Tool

This assessment provides more detailed outcomes for children presenting with SEND. It is targeted towards enabling children who usually make slower or no progress on the Early Years Outcomes (2013) which are widely used through Early Years education to assess the development of young children.

When gathering data, it is also important to reduce as many threats to validity as possible. However, Cohen et al (2007:133) states that, "threats to validity and reliability can never be erased". In order to ensure that the findings of this research are based primarily on the intervention, as many variables as possible should be accounted for. This is addressed by comparing the steps of progress each child makes rather than

the child's attainment level. Looking at progress instead of attainment should provide a truer reflection of the intervention impact on the individual. The developmental attainment level will greatly vary but progress focusses on how many levels they have improved by. This can therefore allow to eliminate threats to reliability of the data caused by individuals having differing levels of development. This will also account for, to some degree their development level in line with difficulties attributed to the diagnosis of ASD as well as the difference of their ages.

Collecting data can also pose difficulties with reliability, Smith and Noble (2014:101) highlight that personal belief can influence the data. To account for this, the method of collecting data is one that is used regularly by Key Workers within the setting to assess all children. This method is constantly moderated to ensure accurate observations as part of regular practice. In addition, Key Workers are unaware which data is being analysed. This should reduce input bias.

One of the biggest threats to validity as was pointed out by Thomas and Smith (2002) that the children within this study are also included in the learning and play experiences already available for all children within the setting. The children will undergo other individualised work as part of their individual plan. These threats to validity will not be removed as it is unethical and as Thomas and Smith state that a, 'tight experimental design can pose ethical and practical issues'. Therefore, the comparison of progress remains the best removal of this threat.

Also, by looking at the data generated by the Key Workers and Data generated by pre and post observations of the children will help to negate threats to validity and provide some triangulation to the research. As Cohen (2007:141) explains; using a triangular technique will, "explain more fully the richness and complexity of human behaviour by studying it from more than one standpoint".

Ethical considerations.

The British Educational Research Association [BERA hereafter] (2018:5) reinforce that 'all educational research should be conducted within an *ethic of respect*'. They also emphasise that this respect should be all encompassing of the participants, the stakeholders and even educational researchers.

Koshy (2005:84) reinforces the need to collect permission from the parent as the child is unable to give consent themselves (a pro forma of the permission letter can be seen in Appendix 1). Permission from parents with young children is paramount. Cohen et al (2007:54) point out, "should a child show signs of discomfort or stress the research should be terminated immediately". The ability to respond to the child's views is paramount and BERA (2018) endorses the United Nations Convention on the Rights of the Child and the best interests of the child are most important. The children within this study have poor communication skills so the Key Worker needs to be sensitive to the child's non-verbal communication while undergoing the intervention. Also, to negate additional stress the intervention is to be a part of an individual plan that has already been put in place for the child and an existing part of their daily routine.

Additionally, as these participants are unable to comprehensively express their voluntary participation, consent was obtained from their main carer BERA (2018:15).

These considerations can be clearly identified from the consent letter given to parents. In addition, the Key Workers were trained to ensure that the Identiplay sessions are enjoyable and if any symptoms of stress or anxiety by the child are observed then the session is to be immediately terminated.

One parent requested further clarification on the confidentiality of the video data and reassurance that the video will be destroyed after use. He was reassured the video is stored under password protection and only viewed within the confines of the setting and by the researcher.

Confidentiality is adopted in all forms of research as BERA (2018) reinforces that both the institutions and individual participants have a right to confidentiality. This extends to the confidentiality of the students during the processing of the data as discussed above but also the confidentiality of the participants within the research paper. As such, each child will be identified by a letter and all references to the setting will be generalised to all maintained nursery schools.

Research Findings, Results and Analysis

Most of the participants were able to take part in the research. One child was removed from the research as their needs were too severe to gain value from this particular intervention group. When initially introduced to the toys, he would mouth them. However, he did value and benefit from the one-to-one attention. On reflection, he required more Intensive Interaction sessions as recommended by British Institute of Learning Disabilities (2004) (BILD hereafter) where his actions and sounds are to be copied to improve his interaction. BILD recommends that Intensive Interaction can support the teacher, to help the child to develop confidence as a communicator. However, he may benefit from Identiplay as he develops further. On reflection, working with this young person did highlight the need to ensure the intervention is suited to every child's need.

The other participants appeared to enjoy the sessions and there were no withdrawals either by parents or by the children demonstrating negative behaviours towards the programme. Initially, some children found the intervention different and required several sessions to establish the intervention within their routine. Anecdotally, one of the older children would tap their Key Worker on the shoulder and lead them to the intervention room and get out the toys to instigate an Identiplay session.

The impact of the research will be looked at in two ways.

- Overall impact by curriculum area assessing both the individual data and the cohort data.
- Impact of the quality of play

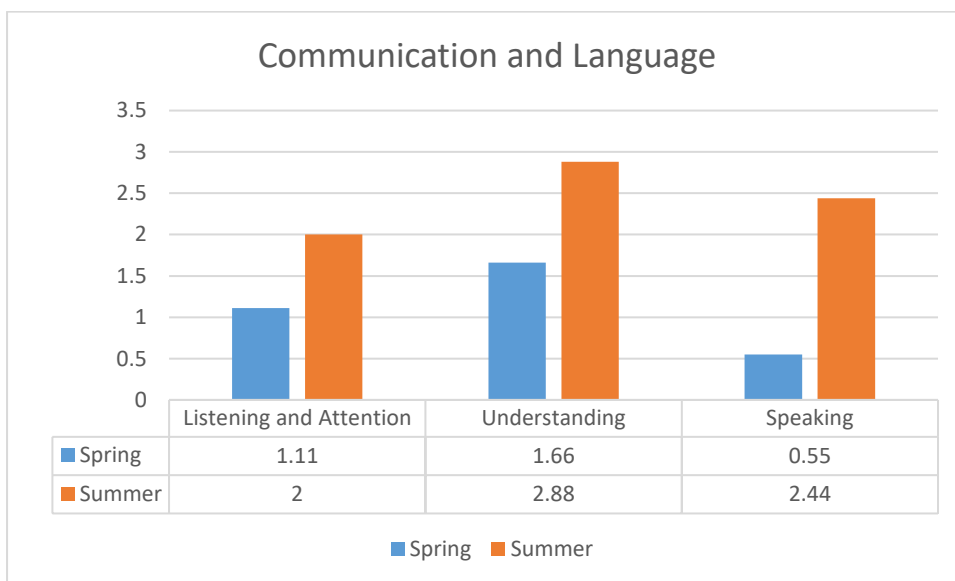
Firstly, the average progress data for all of the participants is assessed. This is to gain a snap shot of the over-arching impact within each Early Year's Curriculum area. The data is a comparison of the average number of steps of progress made in the spring term compared to the average number of steps made in the summer term which is when the intervention took place.

Cohen (2007) states that qualitative data analysis also accounts for and makes sense of data. Therefore, in addition to describing the different sets of data. This data will also act as an opportunity to examine themes around the findings.

Table 1.

Child	Steps of Progress					
	Listening and Attention		Understanding		Speaking	
	Spring	Summer	Spring	Summer	Spring	Summer
A	4	2	2	3	0	0
B	1	2	2	3	1	1
C	0	1	1	1	1	0
D	1	6	0	4	0	5
E	3	3	1	3	1	6
F	0	0	0	4	0	8
G	1	2	7	5	1	1
H	1	2	2	3	1	1

Graph 1



The data from this curriculum area shows the largest impact greatest within the area of Speaking. Three children made over five levels of progress. For these children in particular, the intervention could have attributed in part to their increase in ability to communicate. The intervention did encourage a language rich environment and a purpose for talk. These children were able to greatly increase their ability to communicate. One child made eight steps of progress during this intervention period in Speaking.

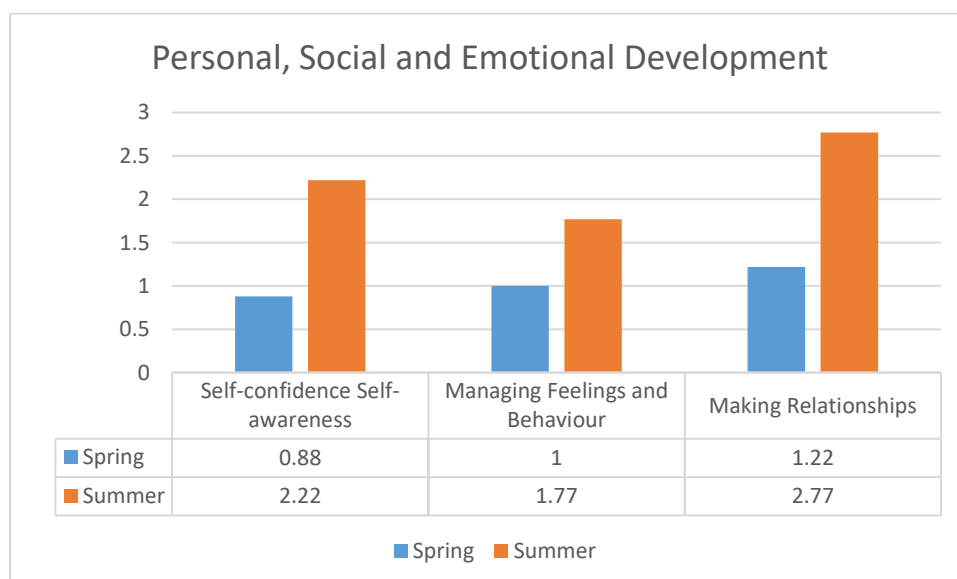
Listening and Attention and Understanding showed lower progress. This could be attributed to the intervention having less impact on these curriculum strands. On reflection, the curriculum requirements within these areas are less associated with play.

This irregular variance in progress is often seen with children who have ASD. This observation is often anecdotally referred to by professionals when discussing individual progress and attainment tables. The data does not provide robust empirical evidence to support the hypothesis for the effectiveness within Listening and Attention and Understanding. However, there is sufficient evidence to suggest that some modest gains are occurring with some of the children for Speaking. This is very encouraging as speaking is central to communication. Communication is one of the most inherently challenging aspects of autism as classified by the triad of impairments. As Wing and Gould suggest (1979) (as cited by Wearmouth2016:92).

Table 2.

Child	Steps of Progress					
	Self-confidence Self-awareness		Managing Feelings and Behaviour		Making Relationships	
	Spring	Summer	Spring	Summer	Spring	Summer
A	2	0	3	1	0	1
B	1	2	1	2	3	2
C	1	1	0	0	1	2
D	1	5	1	4	1	5
E	1	3	1	4	3	4
F	1	3	1	2	0	1
G	0	5	0	1	0	7
H	0	0	0	0	1	1
I	1	1	2	2	2	2

Graph 2.



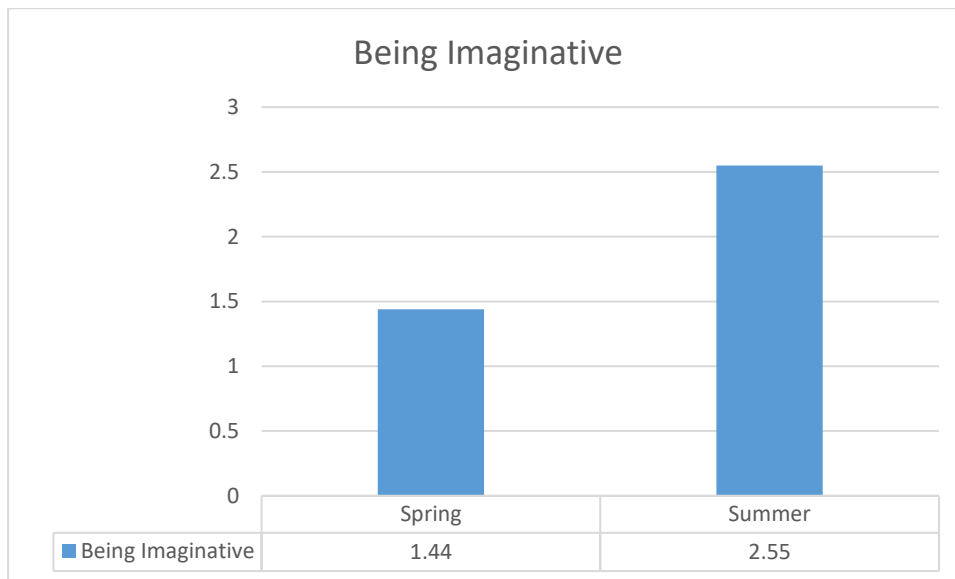
Generally, graph 2 and the individual progress scores illustrate a very encouraging and consistent trend towards improved outcomes. This is most notable with Self-confidence/Self-awareness and Making Relationships. The increase of confidence harks back to Thomas and Smith (2004:203). They assert that enabling children to be able to play with a set of toys, will enable them to carry out more types of behaviour which can make them more approachable to their peers. In these two curriculum areas, we witness progress that more than doubles between the spring and summer terms. This demonstrates that something is occurring between terms and again some of the increase could be attributed to the intervention group.

The increase in data was not consistent with Managing Feelings and Behaviour. However, this intervention was used when a child who was finding it a challenge to behave appropriately with in the class. He was unable to respond to the usual behaviour policy. Instead, prompted by the findings of Thornton and Cox (2005) (cited in Phillips and Beavan 2012:5), that found that play interventions impacted on behaviour. After an Identiplay session the child was able to return to the classroom and play appropriately alongside his peers. This highlights the possible impact of positive modelling as a way to demonstrate appropriate behaviours.

Table 3.

Child	Steps of Progress	
	Spring	Summer
A	2	3
B	2	3
C	0	2
D	2	3
F	1	3
G	0	7
H	6	0
I	0	0
J	0	2

Graph 3



In this curriculum area Being Imaginative, the cohort also reveals good progress made between two terms. There are some inherent difficulties with the data. To begin with, there are no statements/objectives within the first developmental age bands. This presents an issue with baselining. With this variable being considered, the results are still encouraging. Imaginative play is critical to future intelligence, empathy and social interactions. Given that autism is essentially an empathy disorder, according to one of Baron-Cohen's earlier books – *Mindblindness* (1997), this presents with a critical developmental challenge. Baron-Cohen argues that normative individuals are able to infer what other people are doing. They can do this by imagining what they must be thinking, what they are doing, essentially placing themselves in another's shoes. This ability usually develops through early social interactions. Imaginative play must then be an enactment of social awareness. Wolfberg (1999:36) makes the distinction in greater detail between simple and pretend play and advanced pretend play. She asserts that early play relies on realistic props to enact familiar routines and situations and later this extends to scripted play. These follow normative steps in development, but children will often develop along their own pathways, specific to their disorder.

Ungerer (1989: 80) discusses these types of play in terms of functional play which she describes as, "the simple manipulation of objects", hence, functional play is play where the child is using an object for its intended purpose. Autistic children are more often to be seen to use functional play, but they are less inclined to extend this to symbolic play which could be stated as similar to Wolfberg's advanced pretend play.

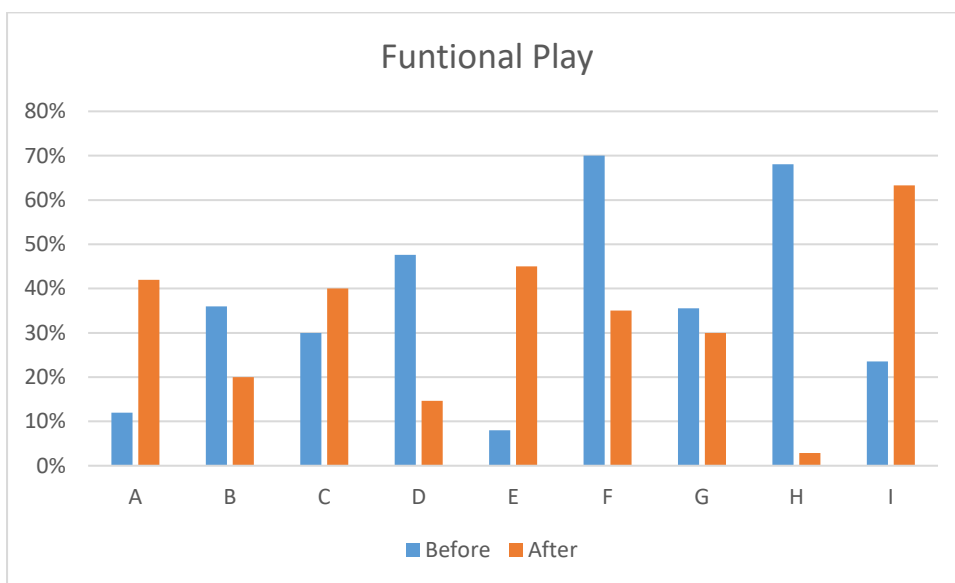
Impact of the Quality of Play

The children's play was analysed by coding the different types of play. The coding's were: No play, watching play, repetitive play, functional play, and symbolic play.

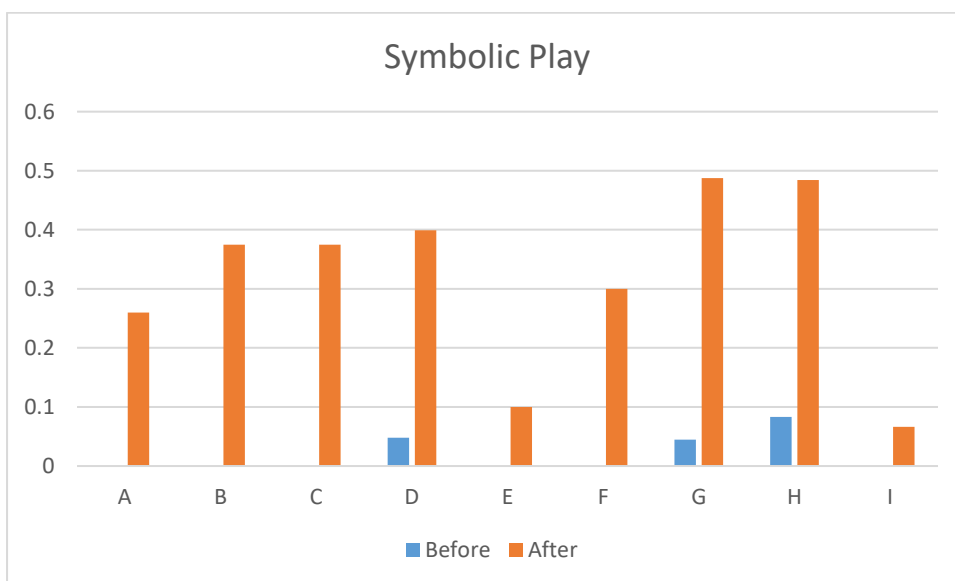
The data was coded on a three second timer to ensure robust and equalised analysis. Due to the differing lengths of video the percentage of incidence of play were calculated.

Before analysing the data, it is important to clarify the parameters of what we interpret as symbolic play and functional play. Within this research, functional play is attributed when the child purely engages with the toys. I have coded symbolic play even when it is present in its most simple and emergent form. For example, children who have progressed from functional play to symbolic play, i.e., moving a toy car rhythmically then progressing to including relevant sound effects of the engine.

Graph 4



Graph 5



The two graphs above look at the incidents of two types children's play functional play and symbolic play. The incidents of play are compared pre-test and post-test.

Graph 4 shows a variation in incidence of functional play with some children increasing this type of play and other reducing this type of play.

Graph 5 looks at the percentage of incidents of symbolic play and all the children show an improvement in the incidents of symbolic play. Each child has shown progressing symbolic play. Over 50% of the children showed no incidence of symbolic play in the first observation unlike the post-test with all showing some form of symbolic play.

Analysing the incidents of symbolic play has shown that the Identiplay intervention has had an impact on the percentage of time that the children will engage in symbolic play. In fact, the pre-test highlighted that six children did not engage in symbolic play at all. These results clearly show that teaching children with ASD to play, elevates their play ability. These observations demonstrate that the children increased their symbolic play which was and is one of the primary objectives of the intervention.

Evaluation of Impact and Implications

Having reviewed and evaluated the findings, there is some evidence to support that the use of Identiplay does have benefits for children with ASD. This extends to some curriculum areas within the Early Years, and in the improvement of the quality of the children's play within our setting.

When reviewing the research questions: Does the intervention increase specific play-based behaviours? and, does the intervention improve the child's development within the Early Years Curriculum? Yes! There is evidence to positively support both questions.

The strongest findings show that teaching play improves the quality of the children's play as seen by the increase in symbolic play for all the children. This adds further gravitas to the research conducted by Thomas and Smith (2004) and to the intervention proposed by Phillips and Beavan (2012). Additionally, there is also strong evidence to show that this intervention can help improve speaking. On reflection, if the intervention was previously available to some of the older children within the sample group at an earlier period developmentally, this may have had a bigger impact on their current verbal interaction. Thus, this intervention should be available at an earlier stage. The younger children can continue to engage with this intervention and future improvements to their speech noted.

Further to the earlier question of whether teaching play to ASD pupils is actually play, there can be little doubt from the video evidence and subsequent observations, that these pupils do reproduce the learnt play in self-initiated play situations. They are demonstrating deeper play skills and although echoing some taught aspects, they show enjoyment and preoccupation within a non-inductive (teacher lead) learning environment.

If this intervention has an impact for children with ASD could it be assumed that Identiplay would also support all children presenting with speech and language difficulties? Identiplay could provide an opportunity for these children to hear and use language in a play-based intervention. Further research on this group would be of great interest.

If further research is conducted, another way that the data's validity can be strengthened is specified by Mason (2002) (as cited by Kosky 2005:105). Mason states that having another person to observe the video data ask for their opinions would aid in triangulating the findings. Unfortunately, within this research it was not possible as only a coresearcher would have the ability and time to observe, and within a busy nursery school assigning that role was not possible. A way forward would be to analyse similar data from another nursery school undertaking the same intervention group and look for similar trends.

This intervention, within the setting will be continued as an important part of a child's individual plan. With the knowledge that this is a worthy and impactful form of provision it will be confidently added to our provision. The other advantage of the intervention is how the staff have learned an additional way in which to support their Key Children, thus supporting their own professional development.

Conclusion

Frederickson and Cline (2015:303) highlight the importance of including the parent in decisions about intervention groups. Thus far, beyond asking for permission for the children to take part, this is an area worth developing. Parents should be invited in to watch the intervention or watch video footage of their children, so that they can continue to support the children's learning at home and also be aware of the manner in which we work with the children in school.

This intervention provides a great addition to the support given to help the development of children with ASD within the setting. They all appeared to enjoy the intervention, and this was demonstrated in them being eager to join their Key Worker and engage in their individual work. As previously mentioned, one child, would insist upon the intervention taking place.

Perhaps, the most promising potential development and one worth further investigating, is the unintentional therapeutic value that was observed during the course of the trial. This is worth noting, as it should be scrutinised further, if only to assert its benefits or possible adverse effects. The intention is to support many areas of development and if there is a therapeutic value that increases the future emotional robustness of the child, then perhaps Identiplay could incorporate this benefit. Having reflected and watched the video recordings of the children involved in this study, it was apparent, that the children delighted in the play and were visibly having fun. This coupled with the positive results of the research, shows, that Identiplay is a valuable addition to the individualised support of children with ASD within the Early Years. When an unforeseen benefit reveals itself in research, then a future conversation needs to continue. Identiplay as a therapeutic tool, needs to be unpicked further. The

idea previously highlighted by Temple Grandin that we can have non-inclusive practices if it is beneficial, is further supported by this unexpected therapeutic value witnessed in the videos: the laughter, exploration and the positive relationship between researcher and child. After all, most therapies do occur in isolation.

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