3| EXPLORE HOW *NESSY* DYSLEXIA READING AND SPELLING PROGRAMME SUPPORTS THE MOTIVATION OF CHILDREN IN THE IMPROVEMENT OF READING AND WRITING SKILLS

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1. | INTRODUCTION

Since completing my Bachelor of Education degree in 1997, I have worked in various London Boroughs (Southwark, Newham, Croydon, Greenwich), in an orphanage in Peru and also pursued a career in art. Each place I have worked has presented with their own individual challenges and roles, ranging from art to assessment coordinator; Key Stage 2 leader to deputy head teacher, moulding me in to the educationalist that I am today.

For the past three years, I have worked at my current school. Like many other inner city areas, it is an extremely diverse area which brings with it associated challenges and rewards. As a SENDCo (Special educational needs and disabilities coordinator) I need to ensure the children under my care are making expected levels of progress despite having supplemental needs. As we have a much higher than average proportion of children with special educational needs and disabilities, this is definitely one of the main challenges of my job.

In September 2016, I was introduced to supplementary professional development to be undertaken as a collaboration between my school and the University of Greenwich. Due to my role as SENDCo and the fact we recently had new diagnoses, I decided that I wanted to expand my understanding of dyslexia in children and was also considering purchasing a program called *Nessy - Reading and Spelling (*Nessy.com, n.d.), to enable dyslexic children to enhance their understanding of phonics thus, hopefully, strengthening their spelling, reading and writing.

"...Probing a person's ability to understand that words are made up of sounds and that those sounds have a representation in their written counterparts, in letters, this is where it can become very difficult for a child" (Eden at Understood.org, 2014-2017). It was an opportune time to research dyslexia and to study how efficient this program was. The study began in September 2016 and has taken one academic year to complete.

In the following report I will share my insight about the action research process and discuss more about dyslexic children in my school. In the literature review, I will consider effective strategies for these children and link it to studies already undertaken in respect of using tablets and computers to assist their learning. I will give in-depth information about how I conducted my research, including ethical concerns, and of the findings gathered. I will then consider modifications, in light of the data, and how I as the SENDCo, and the school, will improve practice using this research as a guide.

2. | METHODOLOGY

The process of action research is a dual system of learning and change: 'The research provides the learning. The action provides the change' (Dick, 2005, p137). Due to time constraints, the conventional cyclical model used in action research consisting of 5 stages, was modified. So, why was I interested in undertaking research, especially as it would require 'serious devotion of time and effort' (Watson Todd, 2010) in an already hectic work life? What did it have to offer me in exchange?

It is a long held belief that action research projects produce 'research with a small r' (Hargreaves, cited in Claxton et al, 2011; Loughran, 2010; LoCastro, 2000 cited in Brown and Coombe, 2015); meaning that small scale action research projects are less able to produce data which is going to be significant for widespread use (Button et al, 2013). This often has more effect on teachers by developing practice in the practitioners' environments than more formal research due to the personalisation and invested interest in the study (Hargreaves, cited in Claxton et al, 2011 & Watson Todd, 2010). When research of this type is used as professional development for staff it 'seeks to provide recommendations for future practice' within the research school as opposed to nationwide educational recommendations (McAteer, 2013, p8). Schwab and Stenhouse (cited in Carr & Kemmis, 2003) recognised the need for teachers to be reflective in regards to their practice, and be able to inform advances in the curriculum, by making astute judgments using their professional knowledge and understanding.

Loughran (2010) states, that 'Reflection is a specialised form of thought that lies at the heart of professional practice' (p183). When I studied for my teaching degree, reflection and evaluation were central to informing planning. It continues to play a large part of student teacher's practice but this becomes less prominent in the daily life of a teacher when there are other competing demands. This type of research can be used as a reflective tool used to promote positive changes with issues encountered within educational establishments (Hien, 2009; Hine, 2013). Ideally, this would mean that my research could directly impact the children, enabling them to begin improving their reading and writing. However, there are also criticisms of action research one being the amount of impact teacher-led research can have. Frost (2006) suggests that many of these projects lead only to confined information gathering as opposed to endeavouring to modifying the practice of many. It also does not contribute to new knowledge, rather it seeks only to develop teachers' understanding of a situation (Watson Todd, 2010). Frost (2006) continues by questioning the ethics of the impact of action research. As it takes time to filter the good practice through, there will be no immediate impact on the participants of the study, can this be ethical? As the BERA guidelines (2011, p7) state:

"Researchers must make known to the participants (or their guardians or responsible others) any predictable detriment arising from the process or findings of the research. Any unexpected detriment to participants, which arises during the research, must be brought immediately to their attention or to the attention of their guardians..." Nevertheless, from my point of view and that of Campbell and Groundwater-Smith (2007), the risk is negligible and the majority of children experience positive encounters from which they continue to learn and develop.

3. | AREA OF CONCERN

The current position as SENDCo has personally been a steep learning curve. I have been employed in this role for just over two-and-a-half years. When I began, whilst I knew and understood the basics of the nature of many needs encountered in school, I didn't always have the in-depth knowledge of all areas of need, necessary to do my role. One area that I was interested in finding out more about was dyslexia. In my school's *Key Priorities 2016-2017* document, it states that every child should have 'outstanding attainment and progress data'. Currently, in Key Stage Two, we have four children who have been diagnosed as dyslexic and a further three children who have undiagnosed needs relating closely to dyslexia. I felt that more could be done to help these children make progress.

Further to knowledge acquisition regarding dyslexia, I had been considering additional strategies which I might use for the aforementioned children. I had already put a number of plans and resources in place, ranging from using coloured overlays to photocopying work and writing on cream paper instead of the usual white paper; using a writing slope to implementing daily *Precision Reading and Spelling* intervention, but these weren't always effective for *all* the children (Driver, 2017). I began looking for other ways to assist the children in making more progress with reading and writing. A colleague had heard about a web-based programme called *Nessy Reading and Spelling* developed by specialist teachers and psychologists at the Bristol Dyslexia Centre, specifically designed for children with dyslexia. According to Nessy.com, research has shown that using the program 'produces positive educational results' and that 'all children will make gains' whilst using the phonetic approach program.

Even though there are many aspects of dyslexia to consider, the decision to focus on phonemic ability was made as all four of the children in school struggled within this realm. Dyslexia interventions are only likely to have an impact if they concentrate on the specific causes of the child's particular difficulty (Gerrard, 2012). I decided that the program was worth appraising as I hoped it would help the children make progress towards their end of year goals.

According to the British Dyslexia Association (BDA), around 10% of the population are dyslexic, 4% of these are severely dyslexic (BDA, n.d.). Dyslexia is a specific learning difficulty (SpLD) affecting a person's reading and spelling skills. It is a consequence of difficulties with phonological awareness and the processing of these sounds (Dyslexia Action, n.d.).

In 2009, the Department for Education (DfE) agreed upon a formal definition of dyslexia following a recommendation in the report by Sir Jim Rose. The specifics of the definition aid in identifying possible children who may need further assessment in order to diagnose the disorder. However, there are those that would argue that having dyslexia is much more than this. Many dyslexics also encounter problems with working memory, retrieval of words, concentration, processing speed and organisation (Bourne, 2012; McLean, 2013; Wickenden, 2013). These difficulties can manifest themselves through not being able to follow instructions or process verbal and written information and a lack of concentration on learning, when completing tasks (Bourne, 2012). One of the reasons dyslexics struggle with reading and writing is because they are complex activities requiring different areas of the brain to be used simultaneously. Writing 'requires coordinating cognitive, linguistic and motor processes...' (Sumner, Connelly & Barnett, 2013). Whereas for reading, the brain requires an awareness of phonics and decoding, grammatical usage and comprehension which all need to combine to accomplish the action of reading (Burns, 2012).

Researchers found that there was a difference between the brains of the children with dyslexia and those without. Some parts of a dyslexic's brain were not activated in the way that the more fluent reader's brains were. Further research shows that explicit phonetic intervention can help a dyslexic's brain develop to be more akin to the brain of a non-dyslexic. Rose (2009) suggests that for children to be successful in reading and spelling they need to be phonologically aware and Goswami (2015, para.20) continues by proposing that 'teaching through rhyming games...aids the development of phonological awareness'.

So the question arises, how do we entice dyslexic children who find reading and writing, and more specifically phonics, challenging to participate in a phonetic intervention? Digital technology is being used everywhere by almost everyone and this includes children who may need extra intervention to help them with a learning difficulty. Jama and Dugdale (2012, cited in Sabri, Blanchfield and Hopkins, 2013 p.731) believe that children are 'more inclined to play digital games than read a book' which in turn has encouraged game designers to consider creating games for educational purposes and with specific learning needs in mind.
Digital games can be an engaging and beneficial way of learning providing a 'hook' to entice children to learn, especially when something is arduous (Prensky, 2003 cited in Sabri, Blanchfield and Hopkins, 2013; Gee, 2005; Gee, 2013). Good principles of learning within games, of which there are over 35, encourage children to learn, and include:
active and critical learning principle, committed learning principle, achievement principle, and the practice principle (ibid).

Since children with dyslexia struggle to maintain attention [Rose, 2009; Bourne, 2012; NHS.uk, 2015], it is useful to ensure that learning is divided into manageable steps [Nasen, 2015]. Game-based learning for children with dyslexia is often based on short, achievable games to encourage the child to remain focused on the key objective. These educational-based games can also be an effective approach to aid short-term memory which in turn will help children with dyslexia to improve their literacy skills (Khaledi et al, 2013). McLean (2013) also promotes this along with 'less auditory input and more visual prompts' to aid in helping children with their working memory which, in turn, is important for the 'development of metacognition and the development of reading' and writing (Goswami, 2015 p.11).
Despite all the positive connotations of digital technology and games, there are, in fact, some reasons to be cautious. An American study suggests that if a child plays digital games for more than 2 hours a day, they are '67 percent more likely than their peers, who play less, to have greater-than-average attention problems' (Klein, 2010), this view is also supported by Jun Tan and Chua (2012). If this is the case, then this raises several issues. For example: what will it do to children who are dyslexic and already have a low attention span? Does this mean there is potential for it to decrease and further obstruct their learning? Or will it mean that educational gaming will encourage children to become more immersed in their learning?
Schools are having to up the ante in the education stakes to encourage and often, entice the children to learn (Schwartz, 2014; Jun Tan & Chua, 2012). The children are often seeking immediate gratifying feedback and want to see game-like elements in their learning, such as leaderboards, levels and tokens being earned as rewards (Blewett and Adam, 2016). Research has advocated the use of gaming to motivate engagement and, ultimately, improve academic performance (ibid). Jenkins (2017) believes that 'Some children assume that if they cannot master something straight away, they have failed...But greatness does not happen overnight'. There is a belief that educators should focus on the child's personal achievements, not solely on academic results (ibid; Dweck, cited in Goswami, 2015; Claxton et al, 2011). This may be so but educators

must remember that they need to provide pathways for children to achieve and not solely focus on improving mindset (Loo, 2015).

Ethics

There are compelling moral obligations to ensure that participants in any research project are aware of their rights within the parameters of this research and give voluntary, informed consent (Social Research Association (SRA), 2003; BERA, 2011). It is vital that all parties (in the case of my study, parents and children) 'understand and agree to their participation' (BERA, 2011). Initially, consent for the study was given by the executive head teacher of the school who signed a form explaining that I would ensure the confidentiality and anonymity of all participants. Both Bell (2010) and Hart & Bond (1995) agree that people partaking in the research should have time, prior to the initial meeting, to read through the contract so as to be clear about and have an understanding of what is expected. During my initial meetings with the parents, I discussed the project and explained the contract. I then allowed them time to peruse the contract at home before making a decision about signing.

It is important to establish the difference between confidentiality and anonymity. Confidentiality means ensuring there are no data or information leaks; there will be no disclosure of information (Koshal, 2011). Whereas, anonymity ensures that anything discussed will not relate back to them (Parsons, 2015). I must also consider role conflict which considers the difficulty reconciling two roles in the environment where the study is to occur. I hold the position of SENCo, alongside that I will be accepting the position of researcher. I need to carefully balance each role so as not to jeopardise my findings (Hammack, 1997).

4. | DATA TO INFORM THE ACTION

Qualitative data collection needs to be rigorous and be able to support or refute the area of study with a view to making changes within the school and, possibly, within wider parameters (BERA, 2011). I will be concerned with using the interpretative approach as I am interested in the experiences of children with dyslexia. Interpretative research attempts to comprehend and interpret the meanings of actions relating to our behaviour (Hudson & Ozanne, 1988).

Interviews

Personal informal interviews were chosen to ensure views of each child were gathered. The interviews were more of a conversation, helping to put the participants at ease. Each conversation began with an identical outline of questions, although the course of the conversation was flexible and altered when more in-depth probing was required to further my understanding (James et al, 2007).

Prior to beginning the intervention, I spoke with class teachers to gain a deeper understanding of the needs and attainment of each individual child. After using Nessy, I repeated the process to discuss whether they believed Nessy had been of value to the child as children have been known to be overly positive when evaluating their learning in order to secure more iPad time. However, I was aware that the validity of discussions would be questionable as they are subjective and not representative (Brooks, cited in Rose, 2009).

I decided not to use focus groups to gather views as I wanted to ensure the confidentiality of the pupils and their families, as only one of the out of the four children who were participating, knew that they were dyslexic. Therefore, opening the conversation to a focus group could have meant the other children began questioning why they had been chosen to participate. Whether or not parents inform their child of their discreet needs is a parental decision which I did not want to question. Also, knowing the children as I do, I know that they could be easily swayed by other children's answers thus allowing for data which was not completely accurate.

I intended to interview parents but with time constraints as they were, it only became possible to meet with one parent. This was disappointing, however, the insight that parent gave was of interest.

Statistical Information

Alongside the informal interviews, I needed to gather baseline data with which to draw comparisons on achievement. Schonell reading and spelling ages, teacher assessments and a sample of each child's writing was used. Each was collected prior to beginning *Nessy Reading and Spelling* and then again at the end of the research period.

The Schonell tests are a norm referenced, standardised test which are seen as a reliable source of information, if administered and scored correctly (SNIP, 2011). As I have used them many times in my teaching career, I felt they were the best system to utilise to be able to identify value added attainment. They are a little outdated (they were first published in 1950, my version originates from 1971), but, even today, they are still used to obtain reading ages for special educational needs children.

The work samples offered an opportunity to make a comparison between work completed before and after using the Nessy program. As I was looking mainly at spellings, I was not concerned about the work being of a different genre. I was also aware that improvements in the child's writing were not made just because the child used Nessy, class teaching would need to be taken into account too.

Open Observations

Observations were ongoing throughout the duration of the action research. I was hoping that they would provide an insight into things the children were unwilling to say in an interview situation. I believed I could be unobtrusive in obtaining the children's views about using Nessy. However, it was very easy to overlook discussions the children had, as I was often assisting another child. It also opens up the complication of being judgmental about what I saw as there was always the possibility of incorrectly translating what I had observed or overheard or influencing how the children act and what they may say (Good Therapy.org, 2015).

5. | ACTION

Action Step One: Consent Before embarking on using Nessy, I obtained the consent of the parents and children who had been chosen to participate in the research. During a one-to-one meeting with the parents, I explained why I was undertaking the research, the confidentiality and anonymity clauses and how their child would be involved. Each parent was given an overview of the research project to take home and discuss with other relatives, before signing the consent form. The children were given an adapted information sheet, setting out the research in more child friendly language, which I read through with them. They were given an
opportunity to ask questions about their participation but all were eager and excited to be able to participate in something new!

Step Two: Collecting and collating all evidence prior to starting

I collected the baseline data from the Schonell reading and spelling tests, and the teacher assessments.

After completing the reading and spelling tests as required in the test administration information, I put them into a table, along with the teacher assessment data, to be able to make comparisons before and after using the Nessy program. Meetings were then arranged with class teachers, one of the parents and all four of the children.

Step Three: Beginning the intervention program

After all the statistical data had been gathered, we began the *Nessy Reading and Spelling* intervention. Of course, by now, the children were extremely excited about the prospect of starting a new intervention group and using an iPad three times a week for half an hour. For the

first couple of weeks, we went through the logging in process together to give them time to become familiar with it. To begin with, all children set individual targets for reading and writing. Each child wore headphones so as not to distract their peers with the music and sound effects used in the program. Throughout the target setting process there were many cries of joy from all children and a few gasps of ''argh" and "I knew that", if they were incorrect. When all targets were set, the children began working on their personalised targets. Each teaching phase begins with a short animated teaching phonic video. After a few weeks on the program, some of the children would try to skip past these videos if I was not observing them, to hasten on to the games as they enjoyed the challenge they gave and the enjoyment they got from them. However, they often found it difficult to complete the phonetic-based task as the video taught them the focus phonic sound.

Step Four: Refining and developing the sessions

Over the course of six sessions, I had noticed that the children were rapidly working through their targets and yet, when questioned about the target phonics they had been learning, three out of the four children struggled to be able to read words with the same word pattern or tell me the letters making up the digraph or grapheme. With this in mind, I decided to implement a new way of working through their targets. Each child would be given a folder with extra worksheets and practical games to encourage them to commit the phonics to long term memory by transferring the skills from the iPad on to paper. This was not a very popular action to begin with as the children felt as if they were being cheated out of iPad time but after they realised that some of the paper-based games were good fun, I heard less negative comments from them!

After playing each game on the iPad the children earned either a gold, silver or bronze award in relation to their achievement. They thoroughly enjoyed aiming for the gold awards. Over the research period, the children began receiving gold awards more regularly, which made me extremely proud of their achievements and obviously they were overjoyed whenever they got to print their award. ("Look! I got gold. Can I print it?") It also got to the point where the other children were congratulating their peers on their successes - it was lovely to see. I made the decision to run the research period for an 4 extra weeks after the initial completion date as the children were having so much fun and appeared to be getting a lot out of it, not just in terms of phonetic ability but also in terms of peer relationships.

Step Five: Collecting and collating all evidence after the research period ended

Following the end of the research period, I repeated the data collection from step two. I was a little unorthodox with the Schonell reading and spelling tests, in that I repeated test A. Usually, if undertaking the test again with the same children you would use test B, however, I wanted to be able to note if there were any improvements with their phonemic ability and believed that repeating the test would not jeopardise results.

6. | EVALUATION OF THE ACTION

The action research process has been a worthwhile experience, not only have I developed my understanding of dyslexia and, more importantly, the children in our school who are dyslexic, but I have also had the opportunity to evaluate a new intervention, which until now, has not been used in the school.

My initial assessment, that each of the children's learning needs was based heavily on learning the phonemic code, was correct. As *Nessy Reading and Spelling* sets personalised targets for each individual, the children have all been able to learn phonics which they were not able to do at the start of the intervention. Looking through their written work in class, I can see that improvements have been made in spelling.

It has been wonderful to see the individual progress the children have each made. Varying amounts of progress have been made by the children, however, as stated by the British Dyslexia

Association (2016) and in Gerrard (2012) 'Interventions will be effective only if they address the specific causes of...difficulties in individual children'.

Two of the children struggled to remain on task for longer than a couple of minutes, sometimes even watching the short video (usually no longer than one minute) was a struggle. This would then lead to them not having a full understanding of their target, which meant they struggled to achieve the gold or silver for the game, which led to disappointment. Often during an activity, they wanted to share their progress or feel the need to talk out loud about their activity. This resulted in other children being distracted, although they were quick to return to work as they did not want to miss out on playing their games.

Although the activities and videos were short, children frequently needed further teaching input, either from me or by re-watching the video. When the children were playing paper based games, they often interacted with other children which kept them focused for longer as they could share their achievements and give assistance, if needed, even if only in the form of positive affirmations. One of the paper based activity requires the children to read along a path of words containing their target digraph or grapheme to see how far they could reach within one minute. Their result was then recorded on a graph. This had to be one of their favourite activities as all of the children loved the challenge of trying to improve, the next day. There were encouraging calls from their friends. They were never perturbed if it was a particularly challenging phonetic sound they were working on they just continued until they completed the pathway.

Each session I would make time to talk with the children, ensuring I highlighted their personal achievements, which were not always based on their academic achievement during the session (Jenkins 2017). The comments would range from "Well done for persevering" to "Look at the graph, you have been trying so hard to get to the top and you are nearly there. Let's look at the words you are finding challenging" and "You worked out the instructions of that game and played really well together".

The discussions with each of the children, about how they thought Nessy had helped them, were also varied. Three of the four children thought the intervention had helped them, although the fourth child remarked that "it didn't help me to read or write". When looking at the teacher assessments, class work, reading and spelling ages, and also during a conversation with his class teacher, I noted that there had been improvements with his spelling and with his confidence when writing. Obviously, it is difficult to say whether *Nessy* has actually impacted on this but he definitely enjoyed attending the session, although out of the four boys who attended, he was the one who showed the least amount of enjoyment, perhaps because he always only wanted to play the games on the iPad and not watch the teaching videos or consolidate his learning with the paper based activities!

All four of the children made varying amounts of progress in the different assessments but the fact that all children made some progress after a short intervention period is extremely positive. After a prolonged period of using Nessy, I would like to hope that each child would make increasing amounts of progress.

The visible and audible enthusiasm from the children, whenever I collected them, was often heart-warming as they really wanted to participate in the intervention. Three out of the four boys were really passionate about attending the group and were always disappointed if they were not able to attend a session. Whenever they saw me, they would ask "Are we doing *Nessy* today?" with cheers if I said 'yes' and queries about 'why not?' if a session was to be missed. This enthusiasm has definitely transferred in to the classroom for two of the four children, however one of the boys struggling more in the classroom is finding it hard to concentrate for any length of time. At present, we are trying to find ways to help him with that particular issue so that the *Nessy* enthusiasm can also pay dividends in the classroom!

Tough (2016) wrote:

'...a set of personal qualities...noncognitive skills, or character strengths...include resilience, conscientiousness, optimism, self- control, and grit. These capacities generally aren't captured by our ubiquitous standardized tests, but they seem to make a big difference in the academic success of children...' (para. 3)

All of the children showed a variety of non-cognitive skills including motivation, optimism, perseverance and resilience throughout the intervention. These skills may not be measurable but they are important for children to acquire and help them succeed (Gutman & Schoon, 2013).

Although people with dyslexia share commonalities, they will also be very different and may experience learning and interventions in a contrasting way (Driver, 2017). All of the children in the group are individuals and were treated as such. It is vital to ensure that time is allowed to find out how we can help each child, individually and I would develop this further if the research time were longer.

7. | CONCLUSIONS

Although interesting to undertake, the action research process has, at times, been difficult to undertake alongside my role as SENDCo. If I were to repeat this study or begin something new, I would attempt to undertake the actual research over a longer period of

time so as to obtain more reliable evidence from data. I would also ensure that I had more time to speak with parents as I feel their views are necessary and important to the whole process.

The systematic process of action research can be a valuable tool to learn about how best to undertake a learning journey within your own environment. Reading other's research is interesting and can be advantageous but what is even more powerful is participating in research within your own school; the outcomes are related to individuals and groups who you are able to guide in a more personalised way. Not only has the approach led to improved learning for a small group of children, but it has also helped me to grow and develop in my role as a SENDCo, particularly learning more about dyslexia and the children within my school who are dyslexic and how they learn best.

Due to the positive response to *Nessy*, I am going to continue using the program. We have only had a relatively short time implementing this intervention but I believe, if we continue it as a long-term intervention, we will begin to see more positive responses, not only in the children's written work but also with their non-cognitive skills. In the future, I need to consider more carefully who will attend the sessions. Just because a child has been diagnosed with dyslexia, does not mean that this program is for them. It may be beneficial to run a trial period of six to eight sessions to gauge whether *Nessy* is going to be a useful tool for an individual to continue. Also, 'the earlier dyslexic difficulties are identified, the better the chances of putting children on the road to success' (Rose, 2009, p.11) so even if a child has not been diagnosed with dyslexia, I may now consider using *Nessy* with them. Starting the intervention earlier may mean a more positive outcome in the long-run.

Since the project has been completed, the decision to allow the children to use the program at home has been established. The children will continue to participate in the intervention at school and will also be given the opportunity to continue a set number of sessions at home. Each child's progress will be monitored online and one-to-one sessions will continue to be able to assess a child's understanding of their target digraph or grapheme.

Even though the paper-based activities may not have been popular with all the children, it is my understanding these should continue to ensure that the children are consolidating their online learning. If we do not have these extra activities the children struggle to embed the phonics and will rush past activities at home and retain very little learning. There will also now be regular reviews (I envisage once every half term) with the children to talk about how it is helping them and looking for the evidence in their writing and reading. If it is felt that a different intervention would

be more worthwhile then the child will be redirected to something which is more likely to help them.

Driver (2017) believes that it can be difficult for children with dyslexia to feel like they are making progress, some may feel like they do not 'fit in'. If any child in any school feels like this then they are being failed. I want to use all the resources possible to ensure that all children, including those children with dyslexia, are treated as valued members of the school, their classes and in society as a whole.

'*Games are a wonderful tool for learning but they are not the only tool. We need to use every tool we can*' (Gee, 2013).

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