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Primary PGCE

The Enquiring Teacher

ECPP7001-C

‘How does multi-sensory story telling
impact on engagement during story time
in a foundation phase classroom?’

Aim, Focus and Purpose of the Research:

The area within education that proposed a certain interest to me, was the benefits and limitations of multi-sensory story telling and its implications upon pupil learning, specifically within primary school education. This interest came about as I have been teaching in a nursery class for my second block of my first placement and I found that attainment levels during story time sessions were not very high. Originally, I put this down to the age of the learners which could have played a part, but the approach to story time within my class did not engage the senses. From my previous occupation as a teaching assistant in an additional learning needs secondary school, I had a lot of experience of developing learning through the use of a multi-sensory approach. I wanted to see if I could use my prior knowledge and experiences to have a positive effect on learning within the nursery class I was teaching in.

Research Context:

Me and my research partner discussed the idea of multi-sensory approaches to learning. Like me she had previously had experience working within an additional learning needs setting and had gained a lot of experience using multi-sensory approaches. She also felt that within her placement school, engagement levels during story time sessions were low. From this we created our research question: 'How does multi-sensory story telling impact on engagement during story time in a foundation phase classroom?'. This research study took place in two primary schools within Wales.

School 1 (the school I was working in) was the school used for Lesson Study 1. It is an averaged sized school in an urban area within the Bridgend local authority. The most recent figures state that the school has around 230 pupils enrolled, aged between three and eleven years old. Of these learners, 44% of the school are eligible for the free school meals initiative. This is considerably higher than the national average of around 20%. The school also recognises that around 40% of the learners

have an additional learning need. This again, is higher than the average for schools in Wales, which stands at around 15%. The class that was used for Lesson study 1 was the nursery class within the school. At the time of the research being undertaken the nursery had 32 pupils enrolled.

My partners school will be referred to as School 2, and this was where Lesson Study 2 took place. The latest figures from the school saw that they had around 140 pupils enrolled. From these pupils, around 25% of them are eligible for free school meals, which is only slightly above the national average stated above. Regarding the percentage of learners with additional learning needs, the school identifies that around 15% of the pupils have an additional learning need. This is around 5% under the national average that was stated earlier. This class that was used for Lesson study 2 was the year 2 class, which at the time of conducting the research had 12 learners enrolled.

Literature Review:

Much of literature and studies surrounding multi-sensory story telling has used subjects with recognised additional learning needs. Although this does not directly link to our research study, as none of the participants in the study had any additional learning needs, we both felt that the current literature would be worth exploring and used as a benchmark to structure our research question and study design.

Telling stories is a unique human experience (Park, 1998) that has been used as a method of passing on the values of a specific culture down to the next generation (Penne *et al.*, 2012). They have also been used as an approach to socialising children to show them what is right and wrong, as well as what is important (Cassell and Ryokai, 2001). Stories have also been heavily linked to increasing learning within pupils (Grove and Park, 1997; Collins, 1999; Isbell *et al.*, 2004). Lacey (2006) suggested that story telling even has an incredible impact on the development of literacy within pupils who cannot even read and write, as it can aid learners to

understand verbal language. Other benefits that come from telling stories to pupils or young children include increased imagination and empathy (Penne *et al.*, 2012).

A multi-sensory story is a story that engages the senses (touch, smell, taste, hearing and sight) of the audience and allows for this story to become more realistic and give the illusion of it coming to life. In this sense these stories move away from the conception that books and texts are merely just words and illustrations (Brug *et al.*, 2012). It could be argued that one of the founders of multi-sensory story telling was Fuller (1990), who created 'bag books' (Brug *et al.*, 2012). These resources were custom-made, packaged in a sturdy box and personalised to the specific learners. Each page within these books has an illustration of an item that the learners can engage with. For instance, if in a particular story a family is driving to pick up their children's grandmother, once they arrive at her house, they may beep the car horn. In the book when the learners get to this part of the story an image of a car horn will be on the page, as a signal for the reader and audience to beep their own imaginary car horns (Brug *et al.*, 2012). The resource also provided a script for the reader to adhere to. Another author who aided in the creation of multi-sensory approaches to learning was Park (1998) who looked into multi-sensory methods to drama games. The findings from both authors (Fuller, 1990; Park, 1998) concluded that the added multi-sensory elements allowed for learners to become more engaged and to have greater understanding of what was being taught.

More recently Preece and Zhao (2014) looked into the effectiveness of Fuller's (1990) 'bag books' within education. They interviewed twenty-seven educators ranging from school librarians to classroom teachers who all had over five years experience of using 'bag books' as an educational tool. Their findings concluded that the overall majority of the interviewees were extremely positive about the use of 'bag books'. They commented on the simplicity of the stories – they allowed for the pupils to easily follow along, and they found that the books are pitched at the correct level and were an appropriate length for the learners. They continued, stating that the students they work with thoroughly enjoy using the books and they allow for the pupil's own personality to come out. What was probably the most insightful finding from the study was from a deputy headteacher, who felt that the 'bag books' could be used for a wider range of learners and not just pupils with severe learning disabilities. Other

interviewees agreed with this and said that they had used it with a wide range of learners and found the books to have a positive impact upon learning. Although it may have been difficult, as many of the learners that the subjects worked with were non-verbal. It would have provided greater validity if pupil interviews would have taken place. As well as this, the study took place within England, so the results could be viewed with caution for educators within Wales, due to the slight difference within the education systems between England and Wales.

Many of the academics within the area of multi-sensory story telling have referenced a charity called 'PAMIS'. This charity has looked into multi-sensory stories and provides a set of guidelines regarding how to construct and deliver a multi-sensory story (PAMIS, 2010). These guidelines include - only having two sentences per page, a maximum of one stimulus per page (this stimulus could address more than one of the senses), there being no more than eight pages in the book, and the book must have a clear ending. With reference to how the stories should be delivered, PAMIS advise that the reader should stick to the script of the story and avoid adding extra text within the book. They also recommend that once a stimulus is introduced in the story, it should be offered to all pupils to explore. Although these guidelines have been created with additional learning needs pupils in mind, reflecting on the results and findings from Preece and Zhao (2014), these recommendations could be used for a wider audience and potentially for learners with no recognised additional learning needs.

The readings above were used to shape our question and lesson design. The ideas taken from Cassell and Ryokai (2001) regarding the importance of telling stories led me and my partner to want to see how engaged learners were during story time sessions in a foundation phase classroom. From reading the Foundation Phase Framework (Welsh Government, 2015) stories could be used by teachers as a key element in delivery of important aspects of the curriculum. What interested us was that multi-sensory stories weren't mentioned at all in the framework. This led me and my partner to use the findings from Preece and Zhao (2014) to see if multi-sensory stories impact pupil engagement. Regarding the multi-sensory aspect, the guidelines from PAMIS (2010) were taken into account as well as the idea of creating a book with a

number of resources, similar to Fuller's (1990) 'bag books'. Finally, our minds were made up about researching this area once we read the Donaldson's (2015) report detailing the new curriculum for Wales. Within this report the importance of engaging the senses was detailed, but not specifically through multi-sensory stories.

Lesson Study Design:

The action research for this study took the form of 'lesson study'. This was advised by our module lecturers as the desired method of which to gather information due to its long history. This type of research has been used in Asia, specifically Japan, since the 1870s as an approach to gathering data to develop teacher practice. Lesson study requires two or more educators working collaboratively to plan, deliver, observe and analyse the learning and teaching that occurred during a lesson. The findings from the research are then used to reflect upon within the team of teachers involved and they discuss how practice can be improved (Dudley, 2014). Within this action research approach, a lesson (see Appendix 1 for lesson plan) was planned by me and my partner, then 'Lesson Study 1' was delivered in 'School 1' with focus group interviews occurring once 'Lesson Study 1' had finished. After the interviews, reflections took place between both researchers and alterations were made prior to commencing 'Lesson Study 2' within 'School 2'. The specific methods for gathering data to use in this action research took the form of; observations (non-participant), focus group interviews and reflections.

Although observing children as a form of gathering data has widely been used within education (Herr, 2015), me and my research partner did need to be cautious about which specific observation techniques we were going to adopt. We knew we wanted to look at engagement levels whilst the learners were listening to the story. From researching the area, the most used method for measuring engagement used a scale of involvement proposed by Professor Laevers (1994). Within this scale, the researcher observes the participant and matches their perceived involvement with the classifications (extremely low, low, moderate, high and extremely high) that were proposed by Laevers (1994). This scale was very valid for our action research as it

specifically looked at what we wanted to find out, however it did need modifying. We adjusted and tweaked the descriptors that Leavers (1994) had wrote, so that they were specific to looking at how involved the participants were with the sensory aspects of the story (See Appendix 3 and 4 for copies of the observation checklists used). To make sure that the observation technique was fit for purpose, me and my research partner piloted it. We found a video online of a teacher delivering a sensory story and both used the scale to see how involved the participants were. What we discovered was that, even though we had altered the wording in the descriptors for each classification on the scale, completion of the observation was extremely subjective and although we did not differ in results on an extreme level, there were slight differences in our findings. We also found that what we were observing was the participants perceived behaviour, and what we could not fully clarify was how that participant was feeling at the specific time of observing. From this, we modified our descriptors for each classification even more to try and combat these areas. Even though there was a risk of having a slight difference in results due to researcher opinion, we both felt that this observation technique was the most appropriate for our research.

From looking at the literature above within the area of multi-sensory story telling, the majority of the findings have been gathered from teachers who deliver a multi-sensory approach to learning rather than from the pupils themselves. It was incredibly important to both researchers that pupil voice was heard. It is stated in Article 12 of the Convention on the Rights of the Child (United Nations, 1989), that all learners should be allowed to have their voice heard if they wish to. More recently Welsh Government (2011) published a document stating that the government actively wants pupils expressing their ideas within school life, whether that being with what they would like to learn, all the way to pupils being involved in the appointments of new staff members. The sample for School 1 and School 2 was decided by choosing three pupils from each school. The pupils were given consent letters (See Appendix 5 for a blank copy of the consent form) to take home and their parents/carers consented for them to be involved in the study (In reference to the guidelines proposed by BERA, 2018)l. The sample for each school were chosen on the basis of the learners being of high ability and appearing more outgoing, so it was thought that they would engage well with the study and interviews (See Appendix 3 and 4 for copies of the interview

questions). For the interview process it was decided that open ended questions with little prompting should be used to avoid the learners giving answers that they wouldn't have given otherwise. The process was going to take place in a comfortable and familiar setting for the pupils (for example in the classroom or independent learning area outside of the classroom that the learner's access). Pages of the story where a sensory aspect was introduced, were shown to the pupils and their answers in relation to recalling the events that took place on that page, allowed the researchers to decide how engaged the learners were with the story at that time. Although the researchers felt that there were many positives to gaining pupil voice through an interview, one of the main ones being extremely time effective, there were also limitations that had to be considered. Once one pupil had given an answer, the researchers had to be prepared for the chance of other pupils copying that learner and give the same answer to the researchers. Also, with there being an additional adult that the pupils did not know, there was a risk of the learners becoming shy and being less likely to be as outgoing as normal. To combat these the learners were asked different questions to avoid copying and the adult that the pupils were most familiar with, led the interview and the additional adult listened and made notes out of sight of the learners.

After the lessons had taken place and the focus group interviews had been completed, a time of reflection took place between the researchers. This was used to see how 'Lesson Study 1' had gone and if any alterations needed to be made to make 'Lesson Study 2' more effective. Likewise, it was also used to see how 'Lesson Study 2' had gone and what could be changed for next time. The model that was used for the reflections was custom made using two well-known reflective models (See Appendix 3 and 4 for copies of the reflective models used). These were Brookfield's (1995) four lenses of critical reflection and Gibbs' (1988) reflective cycle. Brookfield's (1995) model was used as the layout for the reflective model as it was felt to be the most appropriate with what we were looking at. Brookfield's (1995) lenses allow for the teacher's, pupil's and observer's views to be reflected upon as well as having the opportunity to reflect on the current literature to do with the experience. The issue with this model, was that there wasn't much of a structure within each section to aid the researchers in their reflections. To combat this issue, Gibbs' (1988) model was used to provide the researchers with a structure to help their reflections. Within his reflective

cycle, Gibbs (1988) suggests that to be an effective reflective practitioner, the researcher needs to provide a description of what happened. Then their initial feelings of the experience need to be detailed, leading to evaluating the experience, specifically looking at its positives and limitations. Finally, the researcher is asked to suggest how they could make this experience even better and what they would do next time. The combination of these models allowed the researchers to complete detailed and purposeful reflections.

Ethical Considerations:

Whilst completing the action research, ethical considerations needed to be made to make sure that the data collected stayed secure and the identities of anyone involved remained anonymous (See Appendix 2 for ethics form). To make sure the identities of the schools and pupils that were involved stayed anonymous to anyone else apart from the researchers, the schools were labelled as 'School 1' and 'School 2' and the pupils were labelled as 'Child A, B and C' (School 1) and 'Child D, E and F' (School 2). To make sure that the data collected remained secure, the researcher who had been working in that school, was made responsible for the data that was collected in their school, and this was stored on a password protected memory stick. Additional considerations that were made were, delivering the stories to a group (8-12 pupils) of learners bigger than the sample to avoid other members of the class feeling left out. It was also made sure that the whole study (story and interview) would take place in places that were extremely familiar to the pupils (their classroom), to allow the learners to feel as comfortable as possible. Prior to commencing the interviews with the sample, the pupils were told that if they did not want to give any answers or if they did not want to be part of the interview they were free to leave at any point (In reference to the guide. Both researchers came to these decisions from reading the guidance from BERA (2018).

Lesson Study 1:

The lesson began with the teacher getting the group of pupils (8) onto the carpet and letting them know what was going to happen. Slightly prior to this, the teacher let the observer know which of the children were the three in the focus group. The teacher then stated that they were going to read a book to the group and there will be things in the book that the pupils will be able to touch, see and smell. He also made sure the learners were aware that if they did not want to touch or smell any of the items they didn't have to. Once the teacher had shown the children the front cover of the book that they were going to read (The Very Hungry Caterpillar), they made sure the pupils knew that the observer will be sitting with us and writing some things down - all the learners appeared fine with this. For the first sensory item, the teacher introduced the group to 'The Very Hungry Caterpillar'. It was a small felt caterpillar that the teacher allowed to be passed around the group for the learners to look and feel. It can be seen in the results (Observation Checklist) in Appendix 3 that Child B and Child C were moderately engaged with the caterpillar, they seemed to look at it briefly and then pass it onto the next person. For Child A they were observed to show low engagement at this point, they didn't even look at the caterpillar just held it and then passed it onto the next pupil. The difference in pupil engagement at this point could have come from the fact that the caterpillar was introduced to the group very early into the story and due to the age of the learners (3 – 4 years old), they may not have understood fully that there was going to be items they could hold and explore.

The second sensory aspect in the story, the teacher brought out an apple that was for the hungry caterpillar. The apple was then offered to the learners to smell, feel and look at it. From the results (Appendix 3), Child A and Child B showed high engagement with the apple, whereas Child C demonstrated low engagement with it. Child A and Child B held onto the apple for approximately 10 seconds and really examined its shape and brought it to their nose and smelt it. Child C on the other hand did not initially want to hold the apple, but once the rest of the group had held it, they were then quite keen on holding it, however they did not smell it. The third sensory element was pretend strawberries, the sample group had the opportunity to feel and

then pretend to feed to the caterpillar. At this point all the learners (Child A, B and C) were moderately engaged (Appendix 3) and did feed the strawberries to the caterpillar, but they did seem distracted with what the other learners in the group were doing at the time. The reason for these distractions could have been because not all the learners in the group had strawberries to feed the caterpillar, resulting in low level disruption from those learners and meaning the sample group got slightly distracted. With the strawberries being fake and not real, this could have also resulted in the pupils not being fully engaged with the sensory item.

The penultimate sensory items were ones that learners could smell. A fake lollipop and cherry pie were passed around each member of the group and they were invited to smell them. From the results (Appendix 3), the learners (Child A, B and C) showed high engagement for these items. The reasons for the high engagement could have been because there was a new sensory aspect (smell) introduced that had not been part of the story prior to this section, and this could have excited the pupils. Another possible reason could have been that it was the fourth sensory element of the story and the learners had come accustomed to the introduction of sensory items by this point. The final sensory element of the story was the discovery that the baby caterpillar that the learners had met earlier had now turned into a beautiful butterfly. All members of the group had a turn holding the pretend butterfly and from the observation checklist (Appendix 3) the whole focus group (Child A, B and C) were highly engaged when the butterfly was introduced. This could have been because the butterfly was quite large and had very bright colours and patterns on its wings that drew the groups attention.

After the story had been read, the sample group (Child A, B and C) were invited to answer some questions regarding the story (See Interview section of Appendix 3). All members of the sample group appeared to be very happy to answer the questions. The purpose of the interview was to clarify how engaged the learners were throughout the story. From the results (Appendix 3) it can be seen that the focus group were able to recall parts of the story in turn. Child A and Child B recalled the sensory aspects confidently and without prompting when asked questions about the sensory items. This mirrors the observation notes that showed at these points (Sensory Aspect 2 and 4), that show Child A and Child B demonstrated high engagement at these points.

What was quite interesting was that Child C remained quiet during these questions, which could clarify her low engagement in the story at the beginning (Sensory Aspect 2) and possibly she did not know the answer. On the other hand, Child C could have been quite nervous at this point in the study. Once the interviewer had asked all the questions they intended, a moment of reflection took place between the researchers (See Appendix 3 for reflection notes). During this reflection it was agreed that overall the learners were engaged with the story when a sensory aspect was introduced, they began to smile, laugh and get quite excited, especially near the end of the story. It was also agreed that to improve the experience we needed to engage more of the senses for 'Lesson Study 2', especially taste and hearing.

Lesson Study 2:

Once the whole class (12 pupils) had come in from play the teacher settled the learners and asked them to sit in a circle on the carpet. The 3 target children were identified to the observer and the teacher explained to the pupils what was going to take place (exactly the same as what the teacher in Lesson Study 1 did). The story (A Voyage to Arghan) started with the learners having the opportunity to pretend to be getting into the spaceship and fly off to space (Sensory Aspect 1 on Observation Checklist in Appendix 4). It can be seen in the results (Appendix 4) that Child D and Child E were highly engaged at this point, they seemed to really enjoy pretending to be in a spaceship, whereas Child F only showed moderate engagement. Child F was getting a little distracted during this part of the story by another pupil they were next to, which could have been the reason they weren't as engaged. The second sensory element of the story was auditory (Appendix 4), and the pupils were asked to clap once the spaceship had landed on the new planet. Child D seemed very engaged with this aspect and whilst clapping, even cheered which showed they were engrossed with the story. Child E and Child F however demonstrated moderate and low engagement during this part of the story. Child E took part in the clapping but was interested in what others were doing at the time. Child F was still getting distracted by another pupil during this part of the story, they seemed to just follow the actions of the rest of the

group and it was felt that they did not really know what was happening in the story and why we were all clapping.

For the third sensory aspect (Appendix 4) in the story, the teacher introduced different coloured cellophane for the learners to look through and pretend to look for the different coloured moons that were in the story. It was incredible to see how engaged the focus group was during this section, all showing high engagement. The reasons for this aspect showing more engagement in Child E and F predominately, could be down to the fact that the teacher had brought four different coloured cellophane sheets and the pupils had the opportunity at looking through all of them. This meant that this sensory element lasted a lot longer than the previous two which gave the pupils time to get more involved in it. The penultimate sensory items were bottles of water that were passed to everyone in the group (Appendix 4). In this part of the story the character who has flown to another planet is thirsty and has a drink. Yet again Child D demonstrated high engagement and as they were drinking, they seemed to mimic the character. Child E and F showed moderate engagement, they drank the water but were easily distracted and spoke to other members of the group. The reasons for them being distracted could have been because these two learners had been showing moderate engagement throughout the story so maybe this sensory aspect did not appeal to them. Finally, the last sensory element to the story was a jar of lemon juice that the pupils had the opportunity to smell. This aspect was introduced to mimic the sour smell that the character in the story could smell on the new planet. What was interesting was that the two pupils (Child E and F) were highly engaged at this point of the story. They really enjoyed smelling the jar and laughing with other pupils at how sour it was. Child D did smell the jar but didn't make any reaction and passed it quickly onto the next member in the group, thus showing moderate engagement. It was felt that Child D showed moderate engagement at this part of the story because the person before her had refused to smell the jar and potentially she was copying her friend and not wanting to engage with it much.

At the end of the story, the teacher invited the sample to come to the independent learning area outside the classroom to answer some questions about the story, all of the sample seemed happy to do this. The teacher did make sure the

learners were aware that if they did want to stop the interview at any point they were allowed to do so, all the focus group understood this. The teacher then began to show parts of the story where a sensory aspect was introduced and asked the group what they could remember from this point of the story (See Interview in Appendix 4). Now, although two pupils (Child E and F) showed predominately moderate engagement during the story they were able to answer all the questions asked and their recall of the story was great. Child D showed extremely good recall of the story and was even able to recall the sensory aspects of the story. For example, when the interviewer showed a picture from the story when the sour lemon juice was introduced, and asked what they could remember from this part of the story, Child D immediately said, 'I think it was a smell'. With the age of learners being higher (Year 2) than the ones in 'Lesson Study 1' (Nursery), the interviewer did want to ask the samples opinion on how the story could be improved. Two of the learners (Child E and Child F) suggested that more sensory aspects could have been included to make it better. Once the interview had finished, the two researchers reflected on the experience (See reflection notes in Appendix 4) and agreed that the addition of auditory (hear) and gustatory (taste) senses did allow for some of the sample (Child D) to become more engaged with the story. It was also agreed that this approach to story time would need to be consistently delivered to allow for the learners to be more comfortable and take their time with exploring the sensory aspects. To make the experience better the researches also came to the conclusion that the story would have been better in a bigger print or projected onto an interactive white board so that all the learners could see the images at all times.

Discussion:

From looking at both lesson studies, it is clear that the sensory aspects did allow for the learners to become more engaged in the stories, prime examples of these were Child B in 'Lesson Study 1' and Child D in 'Lesson Study 2'. Both these pupils showed predominately high engagement with their stories and were able to recall what happened during the interviews. The findings match those found in Preece and Zhao (2014), where they also found that the learners were very engaged in stories that had

a sensory influence. From the analysis it could also be seen that engaging all the senses had a greater impact on pupil engagement. In 'Lesson Study 2' the researchers decided to add in an auditory and gustatory aspect to the story. This idea came from the fact that some of sensory aspects (mainly touch and smell) in 'Lesson Study 1' were repeated throughout the story. Although this did not necessarily show lower engagement in 'Lesson Study 1' because of the repetition, the learners in 'Lesson Study 2' did show slightly higher engagement throughout the story (9/15 times showing high engagement in Lesson Study 2 compared with 8/15 times in Lesson Study 1). This variety was probably easier to introduce in 'Lesson Study 2' as the book that was being used in this particular lesson was a specific sensory story book, that detailed the items and materials needed to tell the story effectively as well as highlighting on each page which sensory item should be introduced and how it should be presented. This was probably why repetition occurred in 'Lesson Study 1' as the sensory story was adapted from a popular children's book (The Very Hungry Caterpillar), which did not specifically detail what should be used in the story to make it an effective sensory story.

In relation to the lesson study design created by the researchers, many strengths were highlighted. Giving the learners a chance to offer their opinion in the form of a semi-structured interview allowed for the researchers to clarify how engaged the learners were with the story, and if they were able to recall what had occurred at certain parts of the story. In addition to this, having the extra adult during the lesson to make observations of the learners allowed for the teacher to focus on delivering the story, without having to keep making notes on whether the learners were or were not engaged. There were also some limitations that were discovered whilst conducting the study. For the study to be most effective it relied on extensive collaborative planning of all the components (Observation, Interview and Reflections). Whilst the researchers did feel that they had planned everything well, with both research days occurring at the end of a busy teaching placement, it was possible that the studies weren't as planned as they could have been. Although a pilot study did occur, a practice study with a group of learners rather than a video could have aided in the study being more effective.

Conclusion:

To conclude this assignment, including sensory elements to stories during story time sessions within a Foundation Phase classroom, does produce higher engagement of learners during the story. This finding matches the literature discussed earlier (Park, 1998; Preece and Zhao, 2014) and I feel it is something that I would like to continue to use within my summer teaching placement. I also feel that with the new curriculum (Donaldson, 2015) having a great desire for making sure the well-being of the learners is high, variety of different approaches to learning need to be adopted. I feel that engaging the senses can give that variety to learning that some learners would have been craving for a long time.

As it was stated earlier, me and my research partner did pilot our study and we found this to be very beneficial, the only issue was, it was quite difficult to find a video online of a teacher delivering a multi-sensory story to a group of learners that did not have any recognised learning disabilities. For this reason, our pilot study could not be totally valid with what we were trying to look at. As well as not finding a specific video, we also had to combat the fact that what we were looking at was very subjective (Engagement). We had to be aware that during the study, what one observer interpreted could have been completely different to how the teacher could have interpreted it (Herr, 2015). Although the pilot study allowed for us as researchers to alter our engagement classifications, the results of our study should be viewed with caution relative to their reliability because of this. On the other hand, as our study had a strict focus of engagement within a multi-sensory approach to story telling, our findings are felt to be valid.

To improve the reliability of this type of study, it should be repeated, so that the observers gain a better understanding of the learners they are observing, and when they are and are not engaging with the story. I feel that having two observers instead of one would make the study better, as it could possibly avoid the results being bias as the two observers would be able to discuss how engaged the learners were at that particular time. Another way the study could be improved, is by making the study into

a comparison research study. It would be beneficial to look at how learners were engaged with a multi-sensory story, and how engaged they were during a story that did not have a sensory influence. This would need to be done if the goal was to find out if a multi-sensory approach to story time sessions is the best way to engage pupils. For this reason, I will try and undertake this research during my teaching career, as I feel there is a lot more that can be discovered and analysed within the area of multi-sensory approaches to learning.

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