

This section repeats in brief the common assessment criteria detailed on previous pages. The *extent* to which these are demonstrated by you determines your mark. Using these criteria, tick the box that best indicates the level of achievement you feel you have achieved with regard to each of them.

Common Assessment Criteria Applied	REFER		D	C	B	A
	OUTRIGHT FAIL	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT
1. Subject Knowledge and Understanding (which includes using research-informed literature and knowledge and understanding of the subject)				✓		
2. Intellectual Skills (Analysis)			✓			
3. Pedagogic and Professional Applications (Practical Application and Deployment)				✓		
4. Key Transferable Skills				✓		

PLEASE COMMENT ON AREAS IN WHICH YOU FEEL THAT YOU HAVE PERFORMED WELL	PLEASE COMMENT ON AREAS YOU FEEL THAT YOU NEED TO DEVELOP
I think that my general academic writing, assessment of literature and reflection on research are of a good standard.	I found it very difficult to critically analyse my own research as before this assignment I had never done it before. Even though I mentioned the strengths and weakness of the research methods in the assignment I also found it difficult to critically analyse research methods in terms of my own research.

The Enquiring Teacher

ECPP7001

Student Number: 1300108

Word Count: 6,400

Assignment Title: How can we improve higher ability children's inference skills through the use of Bloom's Taxonomy of questioning during guided reading in lower Key Stage 2?

Section 1: Aim, Focus and Purpose of the Research

The aim of this study was to improve higher attaining children's inference skills through the use of questioning during guided reading sessions. The focus of this study stemmed from observations made during the first part of professional teaching practice (PTE). During PTE 1 I was placed in school B where I observed that the class teacher sometimes used guided reading sessions to listen to individual children read and put groups of children on independent reading and literacy tasks. As a result of this, some of the children in the class were not being supported to use their highest potential during all guided reading sessions. However, it is appreciated that the class teacher had thirty-two children of all different abilities to support during the short, thirty minute sessions. The teacher could not be expected to push every child to use their full potential within such a short space of time. It was also observed that the walls of the classroom displayed the eight reading behaviours that readers should be using when engaging with texts - questioning and inferring are two of the included behaviours (Learning Wales, 2016). Consequently the children were not fully engaging with their texts and developing their understandings of what was being read. After discussing these findings with my partner it was found that they had observed similar behaviours in school A. As a result of these observations both researchers were able to devise the purpose of this research – to improve higher attaining children's inference skills through questioning.

Section 2: Research Context

The research was conducted in two schools in the Swansea local authority (Estyn, 2014a). School A was a small, village school with two hundred and thirty-five pupils on roll. Only two percent of the children received free school meals, which suggests that the school is located in an affluent area as the percentage is considerably lower than the Welsh average of twenty-one percent (Estyn 2014a and 2014b). Three percent of the children were classified as having additional learning needs (ALN) and very few children had English as an additional language (EAL): with none of these children needing support to learn English (Estyn, 2014a). The specific class used in this study was a year four class with thirty-two pupils, of which ten were classed as being higher attaining children.

In contrast to this School B was a large school located near the city centre with six hundred and eleven pupils on roll (Estyn, 2014b). Sixteen percent of the children were eligible to receive free school meals, this suggests that in comparison to school A, B is located in a more deprived area. Twenty-eight percent of the children were classified as having ALN and thirty percent of the children spoke English as an additional language (Estyn, 2014b). The class used in the study was a year three class with thirty-two children. Of those children, thirteen EAL and ten are classed as higher attaining children.

Both schools were categorised as 'green' schools by the National School Categorisation System which means they require little support for improvement from the Welsh Government (Welsh Government, 2018).

Section 3: Short Overview of Relevant Literature

According the Department of Children, Education, Lifelong Learning and Skills (DCELLS) (2010) general teaching of reading in Wales is satisfactory but there is evidence to suggest that learners do not make adequate progression in developing the subsequent skills that help them read effectively. In a document suggested by Learning Wales, Biddulph (2002: 3) argued that reading is an 'interactive' process where readers are encouraged to engage actively with texts and build their own opinions and understandings of the author's messages. Dowhower (1999 cited in Biddulph, 2002: 3) further argued that few teachers use discussions of text content or specific strategies to enhance children's comprehension skills in the classroom. One of the strategies suggested by Dowhower (1999 cited in Biddulph, 2002: 3) was 'making inferences'.

In a study by McGee and Johnson (2003, cited in Kispal, 2008: 25) it was concluded that lexical training, question generation and prediction were effective steps that allowed children to make links between texts and their meanings and to learn for themselves how meanings can be taken from the 'surface features' of text. For this lesson study, this approach was adapted. For example, lexical training was removed as it was an unnecessary aspect, as children in this study would only be using images. Also, in keeping with the theory of R. J. Alexander, in this study, the

teachers were the ones who asked questions to further their responses, instead of the children generating their own questions.

Research by Alexander (2001, cited in Skidmore, 2016: 104) has found that teachers who discuss learning with their pupils create a 'less unequal' relationship between teacher and student. This allows the teacher to see their pupils as independent thinkers in their own right rather than 'empty vessel' to be filled with education by the teacher. Initially described by Alexander as 'scaffolded dialogue', this theory developed into the model of 'dialogic teaching', which takes the power of talk used in the classroom to 'stimulate and extend' students' thinking in order to further their own learning and understanding (Alexander 2001, cited in Skidmore, 2016: 104 and Alexander, 2018). Characterised by Alexander (2018) as more than the normal talk used in every day teaching, dialogic teaching requires interactions to encourage students to think in different ways. It also requires questions to stimulate more than simple recall, and steady contributions from all children. Whilst there are several other aspects of dialogic teaching, these are the three main aspects relevant to this lesson study.

In relation to Alexander, Vygotsky also identified the importance of social interactions between pupils in order to promote effective learning. Vygotsky identified two different levels of learning, the one the child reaches on their own and the child can reach with the help of social interactions. The level of actual development is the level of learning that a child can achieve on their own. Whereas the zone of proximal development (ZPD) is the level of learning a child could potentially achieve through social interactions with someone who has more knowledge, skills or experiences than themselves (Wray, 2014 and Grigg, 2015). This can either be a fellow pupil or a teacher (Wray, 2014 and Grigg, 2015).

All of the literature discussed in this section allowed us to narrow the focus of our lesson study to how questioning can improve children's inference skill during guided reading. In order to narrow the focus of questioning we decided to use the Bloom's taxonomy of thinking skills. Bloom's taxonomy identifies lower-order (knowledge, comprehension and application) and higher-order (analysis, synthesis and evaluation) cognitive skills (Fisher, 2014). Bloom's taxonomy suggests that thinking skills are developed by 'cognitive challenges', and that teachers need to be able to challenge their pupils to think more deeply and widely and in a more

methodical and continued way (Fisher, 2014). Through the use of questioning using the skills in Bloom's hierarchy this study aimed to further the thinking of higher attaining children. Inference skills are described by DCELLS (2010) as a higher-order skill that is essential for children aiming to achieve a level four and above in reading in Key Stage 2.

DCELLS (2010) also stated that in some schools there is a lack of direct teaching of higher-order reading skills. This supports the observations made during PTE1 and the desire to use this research to further children's use of higher-order skills – more specifically inference - during guided reading.

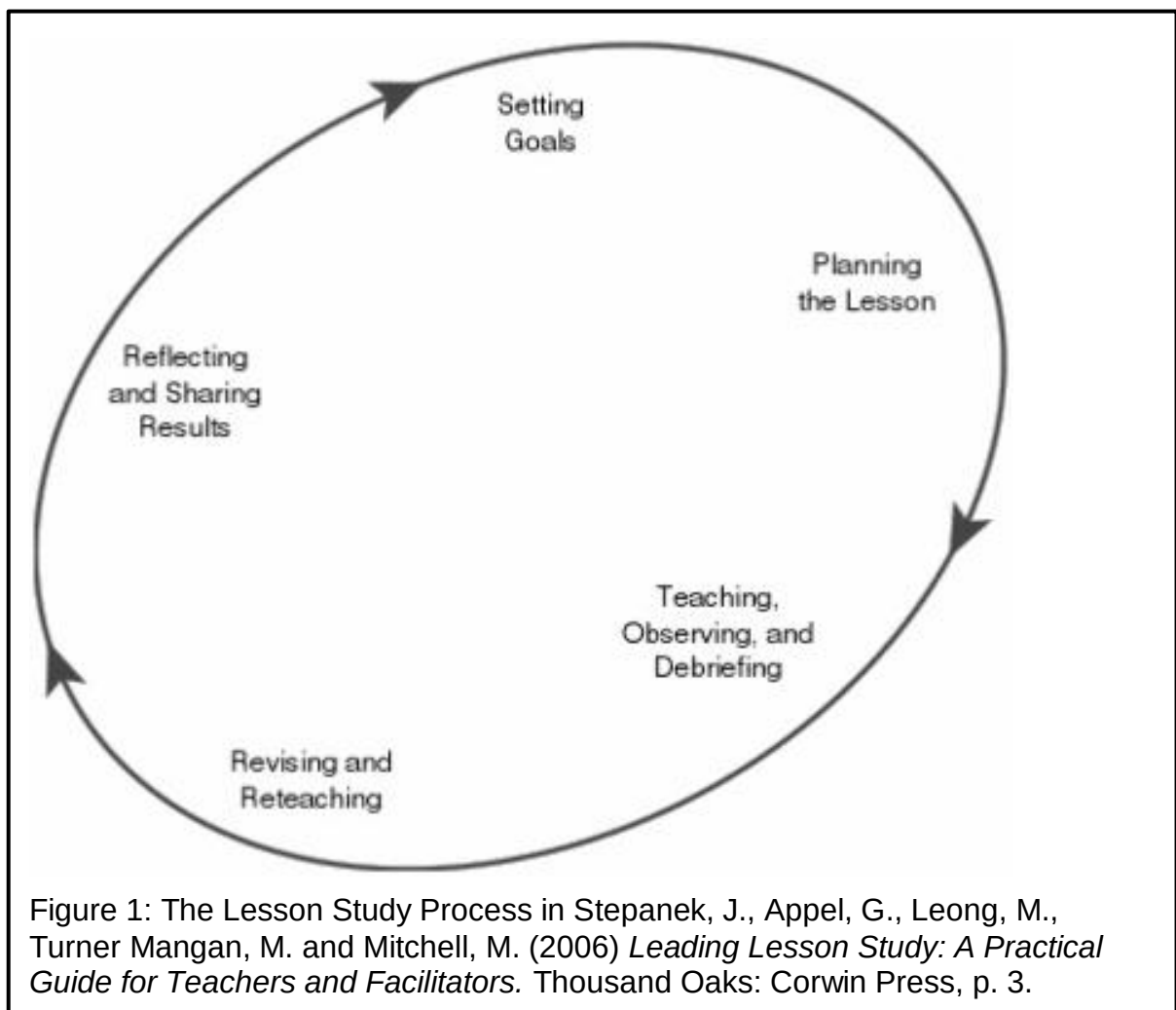
As well as the literature mentioned above, Donaldson (2015) also identified the need to allow opportunities for children to work collaboratively and take more responsibility for their own learning in order for them to become 'ambitious, capable learners' (Donaldson, 2015: 106). Even though Donaldson does not mention inference skills in his proposed new curriculum, it can be suggested that higher-order thinking skills will play a pivotal role in the curriculum designed to improve education in Wales.

All of the above literature has supported our research question by demonstrating the need to develop guiding reading sessions, so that they allow children to have the opportunity to use and develop their higher-order thinking skills when reading. This literature also demonstrated the need for children to collaborate with their peers in order to develop into their highest zone of development.

Section 4: Explanation of your Lesson Study Design

The methodology used in this research is lesson study which is a form of professional development that allows teachers to collaborate and discuss effective ways to improve their professional practice and in turn their students learning. In this process teachers work together and discuss an area of equal interest and plan, create and deliver a lesson, which one teacher delivers whilst the other observes the children. Whilst working in the observation role the teacher documents the children's reactions to the lesson as well as the non-verbal reactions and body language of the children. The two teachers then discuss the results of the first lesson and revise the plan accordingly in order to create even better results during the next session. The

lesson is then re-delivered by the second teacher and observed by the first, after which the two teachers discuss and share the results from both lessons. They then reflect upon these results in order to improve student learning and their own professional development (Coenders and Verhoed, 2018; Stepanek *et al.*, 2006). The lesson study cycle is demonstrated in Figure 1. The lesson study cycle provides teachers with the opportunity to examine the content of their lessons and gain a further understanding of how different subjects and topics interlink and how teachers can design lessons to incorporate this link (Stepanek *et al.* 2006).



As a research method lesson study has many strengths that support its usage within schools. Dudley (2014: 4) stated that lesson study is the ‘world’s fastest growing’ approach to teacher learning and to developing teaching practice that helps to develop pupil learning. Lesson study has been thoroughly researched by several academics and teachers throughout the world. It originated in Japan and has been

used in education for over one hundred years. Even though its Japanese origins bring into question whether or not its processes and findings are applicable to schools in South Wales, it has been thoroughly researched by academics and teachers throughout the world including Britain, America and Norway (Hadfield and Jopling, 2016; Bjuland and Mosvold, 2015; Stepanek *et al.*, 2006; Chokshi and Fernandez, 2004). This demonstrates that it has worldwide applications for education and teacher development that can be implemented in a wide range of classroom environments including those in Wales. A further strength of lesson study is that it is applicable to new and experienced teachers. It allows inexperienced teachers the opportunity to learn teaching techniques and ideas from experienced teachers and experienced teachers to learn things from the inexperienced. (Dudley, 2014). Whilst in the classroom it is sometimes difficult for inexperienced teachers to gain all the professional understanding and knowledge that they will need to become excellent teachers (Dudley, 2014). Lesson study would be a valuable opportunity for colleagues to share their experiences and knowledge. Whether they are brand new or extremely experienced teachers they can all use lesson study to improve their practice and develop their teaching strategies to benefit their students .

Whilst it has been demonstrated that lesson study is an excellent methodology for conducting research in the classroom it does have its limitations. The cycle of lesson study is designed to take place over a large time span (Coenders and Verhoed, 2018). Due to the classroom being a busy environment, some teachers may be reluctant to engage in a lesson study due to time constraints. This is supported by Chokshi and Fernandez (2004: 521) who stated that lesson study is a 'time-consuming' process and that time for conducting lesson study will 'always be limited'. However, they also specified that this process has proved to be worthwhile and gratifying for those teachers who make the commitment to complete a lesson study. One of the requirements of lesson study is that teachers conduct a lesson whilst another watches, documents and evaluates. For some teachers this can cause them anxiety or make them feel self-conscious to perform a lesson in front of their colleagues (Chokshi and Fernandez, 2004). This limitation is highly applicable to this particular research, as both teachers involved felt very self-conscious to have to deliver a lesson in front of the other and then have to be critiqued and have their strengths and weaknesses identified. This is supported by

Saito *et al.* (2015) who suggested that some teachers can become reserved during the reflection stage of the study, as they do not want to discuss aspects that could hurt the teacher who conducted the research lesson. Reflection difficulties can occur for several reasons including: shortcomings perceived by the observer and lack of preparedness by the teacher. Even though critiquing another teacher's lesson – especially if the observer is less experienced than the teacher – is difficult it is an essential part of the lesson study process (Saito *et al.* 2015). Also, without the discussion of criticism during an observed lesson, how can any teacher expect to improve their practice.

The methods of data collection used in this study are non-participant observation, audio recording, field notes and focus group interviews. Non-participant observation occurs when a researcher remains detached from the observation, and attempts to be unnoticed by the participants (Cargan, 2007; Mukherji and Albon, 2015). An advantage of this type of observation is that the participants behaviour is 'less likely' to vary from their normal behaviour (Mukherji and Albon, 2015: 136). This was essential to this research project as we wanted the children to act as they normally would during a guided reading lesson. With any form of observation, the observer needs to ensure that they remain objective and unbiased towards the children in question (Hobart *et al.*, 2009). In order to prevent bias, information about the two schools was not shared with either researcher until after the lessons had been conducted. This was intended to prevent either researcher being biased towards certain children in a way that may have affected the outcomes or findings of the research.

The non-participant observation produced qualitative data, that was audio recorded by the observer during the sessions in order to be analysed after the session. According to Morgan and Guevara (2008) qualitative data researchers favour using audio recordings for data analysis due to the high level of detail obtained by recordings whilst creating minimal intrusion/distraction during the interview process. This was essential during the research, as the type, length and detail of the answers provided by the children during the observations needed to be analysed in order to determine whether or not our lesson study was successful. The teaching researcher wrote a reflection of the lesson using the University's ARC model. This was written to reflect upon the individual researcher's performance

during the lesson and how they believed it should be improved for the next session. A verbal ARC was discussed between the two researchers between lessons one and two and the lesson plan was revised according to this discussion.

Field notes were also used to provide context for the research and document the children's body language and level of participation which could not be heard on the audio recording. According to Phillippi and Lauderdale (2018) field notes enhance the data of qualitative research and researchers are encouraged to use them to contribute context for further analysis of the data. The field notes made also documented the number of lower and higher order questions asked by the researcher, as well as the number of responses elicited by the participants. This produced quantitative data that allowed both researchers to compare the number of questions and answers given and received during both sessions. See appendix 5, for the original observation schedule designed to document field notes.

Finally, focus group interviews were used to gather feedback from the children on their enjoyment of the session and whether or not the questions asked throughout the session helped the children to develop their thoughts on the meaning of the story – see appendix 4. These interviews will also produce qualitative data, which – after the first session – will be analysed to improve the second lesson and – after the second lesson – future guided reading sessions. The interviews were used to collect the attitudes and opinions of participants on the content of the lesson and produce qualitative data that can be used afterwards to analyse with the results. Gibson (2007) stated that this was the goal of focus groups, and that was what they were used for in this research. Mukherji and Albon (2015) argued that focus groups usually consist of six to twelve participants, however in this study only three were used as advised by a University tutor. Two stage cluster random sampling was used to select the participants used in the research and the interviews. In this sampling method, samples were chosen from pre-existing groups (Siegle, date unknown/no date). In terms of this research, higher attaining children are the pre-existing group. The first stage cluster are the six randomly selected children from the higher attaining group, and the second stage cluster are the three randomly selected children from the previous six who were chosen to be included in the focus group interviews.

Section 5: Ethical Considerations

There are many ethical issues to consider when doing research with children in the classroom. Before any research was undertaken, both my partner and I had to complete an E1 form and submit it in order to gain ethical approval from the University to conduct this research – see appendix 1. We took into consideration the Education Workforce Council's Code of Professional Conduct (2017) and the University's Ethical Principles for Conducting Research (2017) and ensured that we were professional and honest with our participants about our research goals, and how we would be recording the pupils responses in order to analyse them later. We also adhered to the British Educational Research Association's (BERA) (2011: 6) guidelines and The United Nations Convention on the Rights of the Child (UNICEF, 1989: 4 and 5) by ensuring that the 'best interests of the child' remained at the centre of the research. We also ensured that every child felt comfortable with their participation in the research and comfortable to express their opinions freely without judgement or fear of punishment. We gained informed consent from the parents/guardians of all the children in each class and gained assent from the chosen children on the day of the research (see appendix 2 and 3). The assent forms explained in child friendly terms what the research entailed and that they had the right to withdraw at any time without any ramifications towards them. We also protected the identities of the children who took part in the research by anonymising any names used in the transcriptions of the lessons and ensuring that all the data collected is stored as stated in the Data Protection Act 1998 (BERA, 2011). As well as adhering to the above organisations, we also adhered to each schools' safeguarding policies to ensure that the children were protected to the standards created by each of these organisations and the schools.

Section 6: Lesson Study 1 and Analysis

During our lesson study we used Anthony Browne's *Zoo* – with the words covered – to get the children to infer what is happening in the book through the images – see appendix 6. There were six children used in the group and three children used in focused group interviews. The evidence used in this section are the transcripts from lesson one and two – see appendix 7 and 8.

The goals of the lesson were to see if questioning could improve a child's inference skills during a guided reading session. Most of the children in the group were able to infer when asked one of the lower order questions.

RG: Ok, stop there. So what are your initial thoughts? We need to hear all of your voices so I'll start with you sweetie.

Child 6: He's angry.

However, as displayed in figure 2, less children were able to give an insightful or non-obvious answer when asked a lower order question, than those who gave obvious answers. This was an expected result that was discussed before the study began. However, through the addition of extra questioning or higher order questioning the children were able to give a more insightful answer rather than just saying what they saw.

Child 1: She looks like she could never be happy.

RG: Why do you think she could be sad and the rest of the family are happy?

Child 2: Maybe someone in her family died and she's just sad.

RG: Why do you think she's sad?

Child 4: Maybe she has a secret that no one else knows about

Child 6: Maybe she doesn't want to go to the zoo.

As demonstrated the children were able to give a more insightful answer when asked questions to further their discussion. The children achieved the lesson goals by furthering their answers when prompted and responding to the higher order questions with insightful and inferenced information rather than simply stating what they saw in the pictures.

Level of Bloom's Taxonomy Questions	Number of Questions Asked	Number of obvious responses	Number of insightful responses
<u>Lower Order</u> Remembering (describe, find, define) Understanding (explain, infer) Applying (interpret)	21	17	13
<u>Higher Order</u> Analysing (compare, contrast) Evaluating (judge, defend critique) Creating (plan, devise)	19	10	25

Figure 2: Quantitative Results from Lesson One. 27th March 2018.

In terms of the children's thinking, the questioning process allowed them to develop from their level of 'actual development' into their 'zone of proximal development', which – as discussed in the literature review – is the level of development children are incapable of reaching without collaboration from their peers or teachers (Wray, 2014: 78).

Child 3: I think he's happy like really really happy, like he's laughing.

Child 4: Oh yeah.

Child 1: Yeah yeah.

Without the questions from the teacher or the discussion with their peers the children would not have been able to engage and infer the same information that they would, if they were looking at the images alone.

The majority of the children remained engaged throughout the session except child 6, who was distracted and playing with a pencil on the table and not engaging in discussion without direct questioning from the teacher. During the focus group

interview some of children were reluctant to give answers to the questions, which may have been a result of their unfamiliarity with myself.

AW: think about the questions that Miss Grostate asked you, was there any question that you wanted to have more time to answer? Or any questions you needed ore help to answer?

Children hesitate

RG: If you think of anything negative to say, you can absolutely say it!

Children shrug

This was a disappointing aspect of lesson that prevented us from getting the full feedback from the participants that we wanted to be able to edit our lesson from suggestions of the children.

We both agreed that the main aspect that needed to be changed for the next lesson was the wording of the questions that we asked. We agreed that the teacher was asking too many leading question, instead of using the higher order questions starters to gain responses from the children.

Child 2: They are going to the zoo.

RG: Have a think about it. What does he look like?

Child 3: A monkey!

RG: Does he look a bit like a monkey or a gorilla and he's delivering bananas.

Child 3: Aw yeah he must be going to the zoo because he's delivering bananas.

Child 4: Yeah but look but everyone is different because he looks like an eagle, he looks like cow.

Without intention the teacher has asked the question in way that makes the children realise that the characters look like animals without inferring this for themselves. In order that we do not do the same in the next lesson, we wrote down a list of higher order question starters to ensure that we use the higher order questions rather than trying to improvise questions during the lesson.

Upon listening to the audio recording of the lesson we both agreed that there was inadequate time between questions to allow the children to give the best answers.

RG: That's different isn't it. What's the same about all of them? –
13:01

Child 4: They're all wearing jeans. – 13:02

RG: Do you think? What do you think they're relationship could be?
– 13:06

Cohen *et al.* (2004) argued that three to five seconds and up to fifteen seconds was an appropriate thinking time for lower order and higher order questions respectively. As demonstrated above the teacher was not giving the children enough time to pause in between questions for the children to give their best answers. During the next lesson, we planned to pause to allow all the children enough time to respond before moving on to the next question.

We learned that the environment has a very influential effect on the learning that took place during the session. We worked with the children in the classroom, whilst the rest of the class were continuing with their activities. This caused disruption to the children in our group and at times caused them to get distracted. It also effected the audio recording as you can hear the class teacher and other children talking in the background. During the next lesson we will use a separate room, so the children in our group remain on task and undisturbed by the other children in the class. We also found that the children were very aware that they were being observed by me, and during the focus group interview in particular seemed reluctant to respond to my questions. According to Martella *et al.* (2013) observer effects are more likely when working with a small group and these effects can be countered by allowing the children to become used to the observers presence over time. During the next session, when I am teaching, we will make sure that the observer is introduced properly before the session and reassure the children that the observer is only there to document things, there will be no consequences for anything they say during the lesson.

Lesson Study 2 and Analysis

As demonstrated in figure 3, there is a positive correlation between the number of higher order questions asked and the number insightful responses given by the children. During this lesson, in terms of the goals, the children exceeded our expectations with the responses that they gave.

AW: So, what else is in the book that makes you think they are at the zoo?

C2: Animals? Lots of animals.

C1: Almost all of the animals are caged?

AW: What does that make you think about the animals? They are all in a cage, what does that make you think?

C1: That they are kept safe.

AW: They could be kept safe, yeah.

C1: They are not in the wild.

Using the list of higher order question starters, we were able to ensure that the questions used were designed to help the children use their inference skills and give more insightful answers than during the previous lesson. As demonstrated above the list of questions gave me focus to concentrate on getting the children to provide longer and more in-depth responses, rather than trying to think of the questions during the session. I would argue that this session was more successful than the previous, in terms of achieving goals as the children were able to make more insightful responses without leading questions to guide them.

Level of Bloom's Taxonomy Questions	Number of Questions Asked	Number of obvious responses	Number of insightful responses
<u>Lower Order</u> Remembering (describe, find, define) Understanding (explain, infer) Applying (interpret)	23	16	12
<u>Higher Order</u> Analysing (compare, contrast) Evaluating (judge, defend, critique) Creating (plan, devise)	34	17	41

Figure 3: Quantitative Results from Lesson Two. 28th March 2018.

In terms of student thinking, the children in this school were also able to develop their learning into the zone of proximal development through interaction with their peers. Similarly to the previous lesson, the children were able build upon the ideas of their peers through guidance from the teacher or peer interaction to create new responses they may not have been able to create on their own.

C1: She looks sad in this one...

C6: (interrupting) she looks worried.

C1: (continuing) she's sad in this one and then she's happy in this one.

AW: What makes you think she could be worried?

C6: Cos she could scared that the animals could come out of their cages.

AW: Oh maybe.

C3: That the two boys are like wearing the same hats they got the same kind of face but different clothes.

AW: So, who do you think they could be to each other?

C3: Twins.

C6: Brothers.

C5: I think they're twins.

As demonstrated above with some guidance from the teacher the children were able to provide insightful response building upon ideas their peers have provided.

The children in school B remained more engaged than the children in school A and were not afraid to share their opinions as some of the children had been in the previous lesson.

RG: Think about these questions you have been asked throughout. The session we are doing is designed to help children learn better. Is there anything we can do to make this session better for other children in the future?

C1: Make the questions more interesting.

RG: If you wanted to ask a question to other children about this book what would you ask?

C1: How many different moods are there? So, they would have to pay special attention.

As demonstrated during the focus group interviews the children provided longer and more detailed answers to the questions, which suggests that they were more engaged and less wary of the observer watching the group. However they did not fully engaged with some of the questions and did not always give us the responses that we expected.

After analysing the session we agreed that I was showing favouritism towards one of the children and asking them more questions than the other children because I knew that they would produce the best answers. In future sessions I would aim to increase my neutrality when working with children I am familiar with by ignoring my personal experiences with those children and focus on being objective (Mukherji and Albon, 2015). We also agreed that if we did the lesson again we would use a larger sample – if possible – to gather further data to analyse and to see if a larger sample size would affect the responses given by the children. This would create more data to analyse and possible more opportunities for children to work collaboratively.

From this experience we learned that it is difficult to make observational notes whilst trying to listen and document any interesting observations that the children make. Very few field notes were made during the first lesson, and few were written down during the second lesson. Instead of making notes, I relied on memory to document the non-verbal reactions of the children. In order to improve the lesson for the future we would modify the data collection methodology to ensure that every aspect of the lesson including conversation and body language can be included. Even though this method would remove any inaccuracies from the lack of field notes, videotaping does not provide any anonymity for the participants and they would be more aware that they are being recorded (Aubrey *et al.*, 2000).

Section 7: Discussion of Research Findings in Relation to Related Literature and research

Overall, we found out that using questioning does encourage children to develop their inference skills. It allowed the children to develop their thoughts and answer questions with more than simple recall of what they saw in the photographs. We found that through questioning we were able to support the children from making obvious remarks about the images to providing in depth responses that were inferential. I found that our findings were similar to those of McGee and Johnson (2003 cited in Kispal, 2008: 25) who found that their program allowed pupils to make connections between text and its meaning. However, in our research we only used images, so it is difficult to fully compare the findings of these studies.

For my year three class, this study has highlighted that many of the children in the higher attaining group were already able to use their higher-order thinking skills, they just needed the opportunities to develop them during lesson time. From doing this lesson study, I have been made aware that the guided reading sessions in the class did incorporate the higher-order skills into the children's learning. However, it is only through completing this research I have been made fully aware of what all the skills are that children should be using in guided reading. As argued by Biddulph (2002) a teacher who understands the 'basic theoretical perspectives' that support guided reading is in an enhanced position to use it effectively compared to teacher who is not. Throughout this research I have developed an understanding of this perspective as well as the skills that children should be using to reach their full potential. If I was returning to this year three class I would be using this knowledge to enhance those children's' learning, but I will be using these skills in my next placement and in future practice.

One of the limitations we encountered with our data collection was focus group interviews, We found that many of the children were agreeing with what the other children in the group were saying, and it was difficult to discern the individual opinions of the children in the group (Lancaster and Broadbent, 2003 cited in Mukherji and Albon, 2015: 158). If we were to conduct this research again we would use semi-structured interviews, which would allow us to adapt the questions to the children's answers, rather than have them not answer the questions at all (O'Reilly and Dogra, 2017).

Section 8: Conclusion

The findings of our research lesson might be different to someone considering them from an outside perspective. It is my opinion that the goals of the lesson were achieved and we were able to demonstrate how questioning can be used to help children enhance their inference skills and provide more insight to images. Even though we did not use all the methodology we had intended, the way that we did use the methodology provided us with the results that we were expecting. My largest criticisms of this lesson study would be our use of focus group interviews, my bias towards the children and my partners use of leading questions.

When considering the methodology the audio recording was effective as we needed to be able to analyse all the responses the children gave and all the questions that were asked. It was reliable as the entire lesson was recorded on an electronic device, but it was not always effective if a child was sitting at the other end of the table from the device. Our use of focused group interviews was less reliable as many of the children did not respond as we intended to the questions that we asked.

Edward (2010 cited in Mukherji and Albon, 2015: 242) stated that validity in terms of qualitative research requires the research to offer a 'sound representation' of the area of study. With this in mind, this research study is not very valid. The research was conducted using twelve children in two schools in South Wales. This is not a sound representation of this area of study as it only covers two schools in a very small area of the country. Also, due to time restraints out of our control, the school teacher in school B would not let us read the book to the entire class at the end as we had done in school A. This also effectiveness the validity of the results as the lessons were not exactly the same in both schools.

The findings from this research cannot be generalised to the wider population as the sample size was very small and does not adequately represent a sufficient size to be able to generalise the findings to the wider population. However, as this lesson has been effective in these two schools it can be recommended that the lesson would work in other classes with other groups of children in those school (Davis, 2011).

Overall, this research provided us with the results that we wanted and demonstrated that questioning can improve children's use of inference skills. As stated above, the limitations found in some of the research methods we used does bring the reliability of this research into question. However, the results of this lesson study – in my opinion – provided us with the results that we needed in able to analyse them and answer the research questions we created.

Once I am qualified teacher, and have my own class I will strive to use lesson study to analyse my pupil's response to my teaching in order to improve it, so in turn my pupils can reach their full potential and achieve the highest results possible. I will also endeavour to use my guided reading sessions to further my pupil's lower and higher-order skills so they can fully engage and discuss texts with their peers.

Section 9: Recommendations

In light of this research, I would recommend that class teachers take opportunities to use guided reading sessions to develop their children's higher-order thinking skills. As demonstrated working in group has a positive effect on the children's learning, and enables them to collaborate and share ideas and thoughts with other children. As well as this, it allows the children opportunities to move from their current zone of achievement in to a zone of development that would be unachievable without their peers. If I was to conduct further research, I would look at questioning and improving higher-order skills in lower attaining children. Whilst the responses from higher attaining children were excellent and insightful, it would be interesting to test if the same responses can be elicited from lower attaining children through peer collaboration and encouragement from teachers.

In terms of moving forward as a teaching practitioner, I believe that this research has reaffirmed the importance of guided reading sessions in teaching. Before this study I did not understand the significance of its importance in children's education. I also did not realise how many children in my class were not using the full range of reading skills that they should be. Without developing their higher-order skills we cannot expect our students to achieve the highest standards of reading. We want our pupils to reach the highest level of attainment that they possibly can, but we cannot do this if we do not teach them and allow them to develop every skill they need to be successful.

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Appendices

Appendix 1: Ethics Form (E1)



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APPLICATION FOR ETHICAL APPROVAL

In order for research to result in benefit and minimise risk of harm, it must be conducted ethically. A researcher may not be covered by the University's insurance if ethical approval has not been obtained prior to commencement.

The University follows the OECD Frascati manual definition of **research activity**: "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications". As such this covers activities undertaken by members of staff, postgraduate research students, and both taught postgraduate and undergraduate students working on dissertations/projects.

The individual undertaking the research activity is known as the "principal researcher".

Ethical approval is not required for routine audits, performance reviews, quality assurance studies, testing within normal educational requirements, and literary or artistic criticism.

Please read the notes for guidance before completing ALL sections of the form.

This form must be completed and approved prior to undertaking any research activity. Please see Checklist for details of process for different categories of application.

SECTION A: About You (Principal Researcher)

Full Name:	Angharad Emma Williams		
Tick all boxes which apply:			
Member of staff:	☐	Student:	☒
Honorary research fellow:	☐		
Faculty/School/Centre:	Yr Athrofa		
Campus:	Townhill		
E-mail address:	1300108@student.uwtsd.ac.uk		
Contact Telephone Number:	07516537887		
<i>For students:</i>			
Student Number:	1300108	Undergraduate	☐
Programme of Study:	Primary PGCE	Taught Postgraduate	☒
Director of Studies/Supervisor:	Catherine Morgan	Research	☐

SECTION B: Approval for Research Activity

Has the research activity received approval in principle? (please check the Guidance Notes as to the appropriate approval process for different levels of research by different categories of individual)	YES	☒	NO	☐
				Date
If Yes, please indicate source of approval (and date where known):	Research Degrees Committee	☐		
	Faculty Research Committee	☐		
	Other (write in): Sarah Elsey	☒	28/02/18	

Approval in principle must be obtained from the relevant source prior to seeking ethical approval.



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SECTION C: External Ethical Guidance Materials

Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines.	
British Educational Research Association (BERA) Ethical Guidelines for Educational Research (2011)	☒
UWTSD Research Ethics and Integrity Code of Practice (2017)	☒
Education Workforce Council (EWC) Conduct and Practice for Registrants with the Education Workforce Council (2017)	☒

SECTION D: External Collaborative Research Activity

Does the research activity involve collaborators outside of the University?	YES	☐	NO	☒
If Yes, please provide the name of the external organisation and name and contact details for the main contact person:				
Institution				
Contact person name				
Contact person e-mail address				

Where research activity is carried out in collaboration with an external organisation

Does this organisation have its own ethics approval system?	YES	☐	NO	☐
If Yes, please attach a copy of any final approval (or interim approval) from the organisation				

SECTION E: Details of Research Activity

Indicative title:	How can we improve higher ability children's inference skills through the use of Bloom's taxonomy of questioning during guided reading in lower Key Stage 2?		
Proposed start date:	March 2018	Proposed end date:	April 2018
Purpose of research activity (including aims and objectives) Outline the purpose, aims and objectives of the research activity, including key research questions. Show briefly how existing research has informed the proposed activity and explain what the research activity will add and how it addresses an area of importance. (Maximum 300 words)			
This study will investigate how questioning using the Bloom's Taxonomy of Questioning during a Guided Reading can develop a child's thinking and inference skills. This research addresses an area of importance as questioning helps children to maximise these skills and become 'ambitious and capable learners' as described by Professor Graham Donaldson in the 2015 report which will be developed into the new Welsh curriculum. The research specifically aims to investigate how questioning can help children improve their inference skills and develop empathy for characters within a story.			
Existing research Learning Wales (2010) have regarded inference skills as part of the higher-order skills that learners should be taught from the time that they begin to learn to read. In regards to levelled outcomes of reading, inference skills should be used by children achieving level four and above.			

Bloom's Taxonomy of Questioning identified lower-order cognitive skills (e.g. knowledge, comprehension and application) and higher-order cognitive skills (e.g. analysis, synthesis and evaluation) to indicate the levels of human thinking - the taxonomy of questioning is designed to develop higher-order thinking skills.

Fisher (2010) defines a thinking skill as a 'practical ability to think in ways which are judged to be more or less effective or skilled'. He suggests that through practice habits of intelligent behaviours may be developed and 'children can become better at giving reasons and asking questions'.

The learning theory of Social Constructivism suggests that through children's interactions with other children they may develop a deeper knowledge and understanding through their learning. Reflecting on this, a guided reading session will allow the children (through interaction with their peers and the teacher) to develop and share ideas of the book.

Furthermore, R. J. Alexander (2010) developed the theory of dialogic teaching where discussion is used to stimulate and extend students thinking and develop their understanding. Through this questioning is used to produce wider discussion from the children, rather than simple recall of information.

This research project will investigate how using different aspects of questioning from Bloom's Taxonomy can help children develop their inference skills.

Proposed methods

Provide a brief summary of all the methods that **may** be used in the research activity, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate later, additional ethical approval for those methods will be needed. (Maximum 600 words)

During the first session Anthony Browne's 'Zoo' will be read using the guided reading method. Researcher One will be conducting the session and Researcher Two will be observing using the following methods.

Observation/Notes: In both sessions, the observer will note the frequency of teacher questions, and the time spent by the children deliberating the answers and the length of those answers. The sessions will be audio recorded so the timings can be accurately noted. We will be using a naturalistic observation so the children behave naturally and are comfortable in their natural surroundings. This will be a non-participant observation: the observer will be recording the session and taking notes on the types of answers and body language delivered by participants. The observer will not have contact with the participants during the session.

During the first session the observer will note how the participants respond to 'knowledge' and 'comprehension' questions (what, recall, which, who, name, tell in your own words, which, rephrase, explain). The researcher will then respond with higher-order skills questions to encourage more detailed answers from the children (What do you think?, How would this effect?, How would they feel?, Have you seen this before?, What do you think they should do?). Whilst these answers are being recorded electronically, the observer will note the frequency and length of the children's responses.

We will measure how the children begin to evaluate the emotional/empathetic aspects of the book when asked questions using the varied levels of the Taxonomy. Following the interviews from the first session, my partner and I will develop our lesson based on the feedback provided by participants and our findings, to enhance the second session.

Focused Group Interviews: We will be using focused group interviews. Mukherji and Albon (2015) suggest that focus group interview with children can sometimes cause them to give similar answers. In order to counter this will be using children who do not usually play together/mix but still fall into the 'higher ability' category. The Key Research Questions we will be asking the children during the sessions are listed below:



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- 1) Did you enjoy the book?
- 2) How do you feel about the learning that took place?
- 3) If you read another book now by yourself or with friends, what questions would you think of about the book? (Would you put yourself into the shoes of characters? Would you think about linking the book to your own life? Do you think the questions and discussions we had during the session are things you might think about in other aspects of life or your learning throughout school?)
- 4) Did you find the questions the teacher asked interesting?
- 5) What can you remember that you enjoyed thinking about/discussing?
- 6) Which part did you not enjoy/find boring or uninteresting?

Audio Taping: We will be recording the entire session in order to correctly record the answers given by the children to each of the questions. Researchers will not use children's names at any time during the recording process. We will be using recording so the observer does not lose focus transcribing the answers to the question instead of noting down body language and facial expressions when answering and noting how many children want to answer each question. Only the children in the focus group will be recorded, not the entire class.



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Location of research activity Identify all locations where research activity will take place. School A is a large inner city school with approximately 611 pupils on roll ages between 3 and 11. 30% of children in the school are recognised as having English as an additional language (EAL) and 28% as having additional learning needs (ALN). The research will take place in a year 3 class of 32 pupils, of which 13 are recognised as EAL and 2 as ALN. School B is a small village school with approximately 254 pupils on roll ages between 3 and 11. Two of the children in the school are recognised as EAL and 7% are recognised as ALN. The research will take place in a year 4 class of 30 pupils, none of whom are recognised as EAL and 2 are recognised as ALN. *All information is correct in accordance with the most recent Estyn Report of each school.
Research activity outside of the UK If research activity will take place overseas, you are responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. Specify any local guidelines (e.g. from local professional associations/learned societies/universities) that exist and whether these involve any ethical stipulations beyond those usual in the UK (provide details of any licenses or permissions required). Also specify whether there are any specific ethical issues raised by the local context in which the research activity is taking place, for example, particular cultural sensitivities or vulnerabilities of participants. N/A

SECTION F: Scope of Research Activity

Will the research activity include:	YES	NO
Use of a questionnaire or similar research instrument?	☐	☒
Use of interviews?	☐	☒
Use of diaries?	☐	☒
Participant observation with their knowledge?	☒	☐
Participant observation without their knowledge?	☐	☒
Use of video or audio recording? (Check parental consent and if acceptable, ensure children are consenting and footage will be destroyed after report completed)	☒	☐
Access to personal or confidential information without the participants' specific consent?	☐	☒
Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful / offensive?	☐	☒
Performance of any acts which may cause embarrassment or affect self-esteem?	☐	☒
Investigation of participants involved in illegal activities?	☐	☒
Use of procedures that involve deception?	☐	☒
Administration of any substance, agent or placebo?	☐	☒
Working with live vertebrate animals?	☐	☒
Other primary data collection methods, please explain in this box: Focus Group Interviews	☒	☐



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If **NO** to every question, then the research activity is (ethically) low risk and **may** be exempt from some of the following sections (please refer to Guidance Notes).

If **YES** to any question, then no research activity should be undertaken until full ethical approval has been obtained.

SECTION G: Intended Participants

Who are the intended participants:	YES	NO
Students or staff at the University?	☐	☒
Adults (over the age of 18 and competent to give consent)?	☐	☒
Vulnerable adults?	☐	☒
Children under 18?	☒	☐
Prisoners?	☐	☒
Young offenders?	☐	☒
Those who could be considered to have a particularly dependent relationship with the investigator or a gatekeeper?	☐	☒
People engaged in illegal activities?	☐	☒
Others (please identify): Student at University	☒	☐

Participant numbers and source

Provide an estimate of the expected number of participants. How will you identify participants and how will they be recruited?

12 pupils. 6 pupils from School A, 6 pupils from School B. Children will be selected by the class teacher who will ask them if they consent to being part of a research project. The children asked will be higher ability.

Information for participants:	YES	NO	N/A
Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	☒	☐	☐
Will you tell participants that their participation is voluntary?	☒	☐	☐
Will you obtain written consent for participation?	☒	☐	☐
Will you explain to participants that refusal to participate in the research will not affect their treatment or education (if relevant)?	☒	☐	☐
If the research is observational, will you ask participants for their consent to being observed?	☒	☐	☐
Will you tell participants that they may withdraw from the research at any time and for any reason?	☒	☐	☐
With questionnaires, will you give participants the option of omitting questions they do not want to answer?	☐	☐	☒
Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	☒	☐	☐
Will you debrief participants at the end of their participation, in a way appropriate to the type of research undertaken?	☒	☐	☐
If NO to any of above questions, please give an explanation			
(this box should expand as you type)			



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Information for participants:	YES	NO	N/A
Will participants be paid?	☐	☒	☐
Is specialist electrical or other equipment to be used with participants?	☐	☒	☐
Are there any financial or other interests to the investigator or University arising from this study?	☐	☒	☐
Will the research activity involve deliberately misleading participants in any way, or the partial or full concealment of the specific study aims?	☐	☒	☐
If YES to any question, please provide full details			
(this box should expand as you type)			



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SECTION H: Anticipated Risks

Outline any anticipated risks that may adversely affect any of the participants, the researchers and/or the University, and the steps that will be taken to address them. If you have completed a full risk assessment (for example as required by a laboratory, or external research collaborator) you may append that to this form. Full risk assessment completed and appended? Yes ☐ No ☒ Risks to participants For example: emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information There will be no events or questioning that should pose any emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information to any of the participants. Both researchers will adhere to the School's Safe Guarding Procedures and the University's Policies in the event of necessity (e.g. if a child discloses any information to any of the researchers or if any of the children become distressed in anyway). Both researchers will also adhere to BERA and EWC guidelines to ensure participants are protected at all times. No children will be treated or regarded differently if they decide that they do not want to take part or withdraw from the study during any part of the process. If a child becomes distressed a TA will be available to assist or comfort for the children. If research activity may include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities N/A Risks to investigator For example: personal safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest The observation will be conducted in pairs, as to ensure that no investigator will be alone with the children at any time. All parts of the study will be conducted in groups, and none of the children will be questioning alone or on a 1 to 1 basis with either researcher. The research will be conducted in an open area or room where the class teacher or any member of staff will be able to enter at any time. The observer will be impartial towards the children in the school they are observing in and will ensure no bias/different treatment of any of the children occurs by the other investigator who has built a relationship with the children during PTE1. University/institutional risks For example: adverse publicity, financial loss, data protection As representatives of UWTSD, both researchers will remain professional throughout the study to ensure the reputation of the university is upheld and the relationship between the school and university is maintained. Adverse outcomes List measures put in place to limit any adverse effects or outcomes of research activity where
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appropriate. Include any emergency protocols.
I will limit the risks by adhering to the BERA guidelines and following the University's Research Integrity and Ethics Code of Practice. I will – at all times – comply with Schools' Safe Guarding Policy to ensure the protection of the children in the research. I will also comply with the professional, ethical, legal practices as stated in the EWC Code of Professional Conduct and Practice.

Disclosure and Barring Service			
If the research activity involves children or vulnerable adults, a Disclosure and Barring Service (DBS) certificate must be obtained before any contact with such participants.	YES	NO	N/A
Has a DBS certificate been obtained?	☒	☐	☐

SECTION I: Feedback, Consent and Confidentiality

Feedback
What feedback will be provided to participants, how will this be done and when?
Verbal feedback will be available for the children who took part in the research thanking them for their participation and responses throughout.
The completed essay may be shared with the head teacher should they request.
Informed consent
Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded.
A consent form will be given to all of the children in the class to give to their parents/guardians, who will be able to provide informed consent on their child's behalf. This will need to be signed and returned to the class teacher before their child can participate in the research.
Assent will be gained from the children whose parents have given consent on the day the study begins. Assent will be gained through a card the children need to sign which will explain in child friendly terms what will happen throughout the session, what they will be doing and that they can withdraw at any point if they choose.
Confidentiality / Anonymity
Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case.
Names will be anonymised and replaced with 'Child A, child B, etc'.
Any recordings where names are mentioned will be erased before the completion of the assignment. Pupils will not be identifiable through any documentation relating to the assignment.



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SECTION J: Data Protection and Storage

In completing this section refer to the University's Research Data Management Policy and the extensive resources on the University's Research Data Management web pages (<http://uwtsd.ac.uk/library/research-data-management/>).

	YES	NO
Does the research activity involve personal data (as defined by the Data Protection Act)? <i>"personal data" means data which relate to a living individual who can be identified—</i> <i>(a) from those data, or</i> <i>(b) from those data and other information which is in the possession of, or is likely to come into the possession of, the data controller, and includes any expression of opinion about the individual and any indication of the intentions of the data controller or any other person in respect of the individual.</i>	☐	☒
If YES, provide a description of the data and explain why this data needs to be collected: (this box should expand as you type)		
Does it involve sensitive personal data (as defined by the Data Protection Act)? <i>"Sensitive personal data" means personal data consisting of information as to –</i> <i>(a) the racial or ethnic origin of the data subject,</i> <i>(b) his political opinions,</i> <i>(c) his religious beliefs or other beliefs of a similar nature,</i> <i>(d) whether he is a member of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992),</i> <i>(e) his physical or mental health or condition,</i> <i>(f) his sexual life,</i> <i>(g) the commission or alleged commission by him of any offence, or</i> <i>(h) any proceedings for any offence committed or alleged to have been committed by him, the disposal of such proceedings or the sentence of any court in such proceedings.</i>	☐	☒
If YES, provide a description of the data and explain why this data needs to be collected: (this box should expand as you type)		
Will the research activity involve storing personal data on one of the following:	YES	NO
Manual files (i.e. in paper form)?	☐	☒
University computers?	☐	☒
Private company computers?	☐	☒
Home or other personal computers?	☐	☒
Laptop computers/ CDs/ Portable disk-drives/ memory sticks?	☐	☒
"Cloud" storage or websites?	☐	☒
Other – specify:	☐	☒
For all stored data, explain the measures in place to ensure data confidentiality, including details of password protection, encryption and anonymisation: In accordance with the University's Research Ethics and Integrity Code of Practice Policy all research data will be held in a secure manner (on a password encrypted laptop), it will not be shared with any unauthorised persons (anyone who is not part of the University Staff marking this assignment, the Head Teacher of the schools used in the research or my research partner).		



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Information and data used in this research will be made available if required as stated in the University guidelines.		
Will the research activity involve any of the following activities:	YES	NO
Electronic transfer of data in any form?	☒	☐
Sharing of data with others at the University?	☒	☐
Sharing of data with other organisations?	☐	☒
Export of data outside the European Union or importing of data from outside the UK?	☐	☒
Use of personal addresses, postcodes, faxes, emails or telephone numbers?	☐	☒
Publication of data that might allow identification of individuals?	☐	☒
Use of data management system?	☐	☒
Data archiving?	☒	☐
If YES to any question, please provide full details, explaining how this will be conducted in accordance with the Data Protection Act (and/or any international equivalent):		
This research will be conducted with another student as it is a joint research project, therefore information and data from the research will be shared with that person. Once the assignment has been completed the data will be archived. Any data stored on personal devices (laptop/memory stick) will be password protected).		

List all who will have access to the data generated by the research activity:
Angharad Emma Williams Rhiannon Grostate
List who will have control of, and act as custodian(s) for, data generated by the research activity:
Angharad Emma Williams
Give details of data storage arrangements, including where data will be stored, how long for, and in what form. Will data be archived – if so how and if not why not.
All information will be backed up onto password protected portable hard drive until the assignment is completed. At the end of the course, all data relating to the assignment will be deleted.



PG2 / E1 FORM

SECTION K: Declaration

The information which I have provided is correct and complete to the best of my knowledge. I have attempted to identify any risks and issues related to the research activity and acknowledge my obligations and the rights of the participants.

In submitting this application I hereby confirm that I undertake to ensure that the above named research activity will meet the University's [Research Ethics and Integrity Code of Practice](#)

Signature of applicant: A. Williams Date: 26/2/18

For students:

Teacher / Senior Mentor:	MRS. S. O'BRIEN
Signature:	S. O'Brien
Date:	26/2/18

Supervisor:	
Signature:	<u>[Signature]</u>
Date:	28.2.18

Checklist: Please complete the checklist below to ensure that you have completed the form according to the guidelines and attached any required documentation:

☒	I have read the guidance notes supplied before completing the form.
☒	I have completed ALL RELEVANT sections of the form in full.
☒	I confirm that the research activity has received approval in principle
☐	I have attached a copy of final/interim approval from external organisation (where appropriate)
☐	I have attached a full risk assessment (and have NOT completed Section H of this form) (where appropriate)
☒	I understand that it is my responsibility to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice.
☒	I understand that before commencing data collection all documents aimed at respondents (including information sheets, consent forms, questionnaires, interview schedules etc.) must be confirmed by the DoS/Supervisor, module tutor or Head of School.

RESEARCH STUDENTS AND STAFF ONLY

All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk, with the title 'Ethical Approval' followed by your name. You will be informed of the outcome of your claim by email; therefore it is important that you check your University and personal email accounts regularly.

Appendix 2: Example of a consent form signed by a parent or guardian.

Yr Athrofa
Institute of Education
Addysg i Gymru Education for Wales

Dear Parent/Guardian,

Your child's school is a partner with Yr Athrofa at University of Wales Trinity Saint David in Carmarthen and Swansea. This school offers placements to students who are learning to be teachers.

The student-teacher in your child's class has been given the task of planning, teaching and evaluating one lesson so that he/she can develop specific strategies to improve their own teaching. As part of this, student-teachers will be observing the children's responses and asking some pupils their views on parts of the lesson. This is designed to inform students' own practice and support children's learning.

Any information collected would remain confidential, and both the school and the children would remain anonymous in work produced. The work undertaken would be in line with the University's ethical guidelines. If, at any time, your child does not want to share ideas, they would not be required to do so.

If you are happy for your child to contribute to the project, please complete the parental consent form below and return directly to the school as soon as possible. If you are interested in the outcome of this project or if you have any questions, please contact the University Partnership Office - partnership@uwtsd.ac.uk.

Yours faithfully,

Catherine Morgan
Module lead – The Enquiring Teacher

As Parent/Guardian of... (pupil name), I do / do not give consent (please delete) for my child to take part in this project.

Signed... (Parent/Guardian).

Date 21-03-2019

Appendix 3: Example of an assent form.

We are trainee teachers and we are doing some research and we need your help. In today's session we will be reading Anthony Browne's *Zoo* and we will be asking you questions based on what you see in the pictures. We will be making notes about your answers.

If you **want** to join in the session put a tick next to the happy face:

☐

If you **do not** want to join in put a tick next to the sad face:

☐

You can leave the session at any time - even if you tick the smiley face – just ask one of us and we will let you go back to class

Thank you!!!!



Appendix 4: Focus Group Interview Questions

Focus Group/Post-Session Questions

Before asking questions, thank children for joining in with the session and looking at the book. Re-introduce partner who will be asking questions. Partner to briefly explain that because we want to make this lesson better for the next class, it's totally fine to give honest feedback about their feelings of the lesson and there is no wrong answer. Partner to ease children in with some open, light questions (1-3).

1. Did you enjoy the book?
2. Did the book make you feel happy or sad?
3. Which part of the book was your favourite? Why?
4. How do you feel about where we were sat during the session?
5. Think back to the questions the teacher asked you, was there anything you remember that you want to talk about?
6. How do you think this session relates to your everyday learning or reading?
7. If we did this session again, what would you like us to change?

Appendix 5: Example of the observation schedule originally designed to document field notes.

Tally of obvious remarks				
Tally of "between the lines" remarks				
Page Number				
Interesting Remarks/Body Language				
Taxonomy Level of Question				
Time (in minutes from state of timer)				

Appendix 6: Lesson Plan

Canolfan Addysg Athrawon De-Orllewin Cymru  The South West Wales Centre of Teacher Education			1B	
Key Stage 2 – Session Plan				
Name: Angharad Williams Rhiannon Grostate		Session ref: 27/28 March 2018		Subject: Guided Reading
Year Group: 3 & 4	No. of learners: 6 and 6.	ALN: N/A		
Learning Objective(s): To improve inference skills through questioning during guided reading.		Success Criteria: - Identify information based on pictures. - Make assumptions based on prior knowledge.		
Curriculum coverage (range and skills): - Read individually and collaboratively (shared reading). - Read for different purposes (to retrieve, summarise and synthesise key information).				
Literacy (LNF) - Take an interest/Explore information and ideas beyond their personal experience. - Make links between what they have read and what they already know and believe.		Numeracy (LNF): N/A		
DCF: N/A	Thinking: Questioning Inference Skills	ESDGC: N/A	YCC: N/A	
Key Vocabulary (English/Welsh):				
Time:	Session Activity, Organisation and Management:		Key Questions and Assessment for Learning Opportunities:	
	Introduction: Discuss with the children what we are going to be doing in the session: explain what is happening and why, and that they all have the right to withdrawal. Get the children to complete the assent cards to gain their consent. Main Activity: Group of six children at a table during guided reading. 'Zoo' by Anthony Brown. A copy			

	between pairs. Post-it notes cover the text in the book. Teacher will go through the book asking the children to explain what they believe to be happening. There will be open discussion where children can volunteer ideas. Teacher to pick up and question children with little input so all children have input and access to the questioning. Teacher uses the bloom's taxonomy model to ask 'knowledge' and 'comprehension' questions (what, recall, which, who, name, tell in your own words, which, rephrase, explain). The teacher will then respond with higher-order skills questions to encourage more detailed answers from the children (What do you think?, How would this effect?, How would they feel?, Have you seen this before?, What do you think they should do?). As children can't see the text, the story is open to interpretation. There is no right answer to the questions, however thinking of reason behind the answer and using reasoning based on what they see and what they already know should allow a reasonable and measured understanding. Focus Group Interview: Debrief interview with 3 target children: 1. Did you enjoy the book? 2. Did the book make you feel happy or sad? 3. Which part of the book was your favourite? Why? 4. How do you feel about where we were sat during the session? 5. Think back to the questions the teacher asked you, was there anything you remember that you want to talk about? 6. How do you think this session relates to your everyday learning or reading? 7. If we did this session again, what would you like us to change?	
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Appendix 7: Transcript from audio recording of Lesson 1: 27th March 2018.

Guided Reading Session: School A

Date: 27/03/2018

Duration: 27 minutes and 29 seconds

RG: Basically we are going to do a guided reading session with you. We are going to be doing a guided reading session with you, and then we are going to ask a couple of you, again a random selection, how you found the learning.

Child 4: How we found what?

RG: The learning that took place. [Research read out the assent form and asked the children to tick and "sign" their initials] 2 minutes and something seconds –

RG: Ok, in the book it says, I have two books so you will have to go into threes. Do you want to choose your threes? It's only because we have 2 and there's 6 of you. Before you open the book does anyone know what inferring means?

Child 4: No.

RG: Any ideas at all what it means?

Child 3: Inferring?

RG: Inferring.

Child 3: Umm putting something in something?

RG: Putting something in something? Umm for an example (inferring) is about saying what you see by looking at something, what you can gain from looking at something. So look at my face...

Child 3: Happy

RG: She's got it, she's inferred that I'm happy ok.

Child 4: Ohhhh.

RG: So now...

All children: Sad.

RG: See you have already got good inferring skills. We are going to look at this book and talk about things that will develop our inference skills. So have a little look, and have a look next to me here. We are going to spend 5 minutes – until 10 past and look silently at the pictures. Yeah we have covered up the words.

Child 2: Have you covered up everything?

RG: Just go through and look at all the pictures, that's pretty much the whole book - have a good look.

Child 6: We can't see their faces.

Child 1 and 2: They're happy..

RG: It's not all about the facial expressions.

Children: Inaudibly discuss the images with each other - 1 minute.

RG: Why do you think they look bored? Because they're just standing there?

Child 3: Because they are fighting.

Children: Continue to inaudibly discuss the images – 30 seconds

RG: Right you can stop there. She looks annoyed?

Child 3: She looks sad.

RG: You think they're all sad?

Child 4: Yeah they look sad.

RG: Ok, stop there. So what are your initial thoughts. We need to hear all of your voices so I'll start with you sweetie.

Child 6: He's angry.

RG: You think he's angry. Why do you think that?

Child 6: Because he's got horns.

RG: He's got horns? The horns are made by the clouds. What do you think?

Child 1: Um I think he's angry.

RG: You think he's angry?

Child 1: Yeah he kind of looks angry.

RG: Yeah let **** have a go. Have you got anything else you'd liked to talk about in this book. You can choose a different page.

Child 3: That one, I think he's angry.

RG: You think he's angry?

Child 3: Yeah either angry or sad.

RG: Angry or sad.

Child 2: I think he's crying.

Child 3: I think he's happy like really really happy, like he's laughing

Child 4: Oh yeah

Child 1: Yeah yeah.

RG: So this page is almost at the end of the book. Has something happened that could have made him feel like that?

Children discuss inaudibly.

Child 4: Maybe..

RG: Because the boys are?

Child 5: Wrestling.

RG: Wrestling. You said you think he's angry?

Child 3: No, no I don't think they are. Look they're like twisting their foot so their like stuck together.

Child 4: Play fighting.

RG: Is there anything that you can think of?

Child 4: He's like angry. **** hasn't said anything.

RG: ****?

Child 2: Um on here I think he's like the dad and they're like they're bored and they're doing that.

RG: What are they looking at?

Child 4: Tigers

Child 2: Yeah tigers.

RG: How do you know they are looking at tigers?

Child 3: Because there is a picture of a tiger there.

Child 4: But there's a fence there and a barrier.

RG: You know when you're looking through the book ****, how do you know what they are looking at? So what do you think?

Child 3: They're looking at the giraffes, because look at that fence.

Child 4: But you wouldn't be looking down a giraffe

RG: Because they're tall? So ***** What do you think?

Child 1: Maybe it's looking at one of the boys.

Child 6: It's looking at one of the sides.

RG: Maybe give me your initial thoughts sweetie.

Child 1: Ok (hesitates)

RG: What do you think about this one?

Child 1: I think the traffic is angry and that man is angry.

RG: So he's getting a bit frustrated, that one is...

Child 3: He's poking his tongue out and getting a bit frustrated.

RG: What do you think my lovely? What does he look like?

Child 5: He looks tired.

RG: Where are they going? Where are they?

Child 2: They are going to the –

Child 3 (interrupting) They're going on a ferry.

RG: What was that you had it – gestures to child 2.

Child 2: They are going to the zoo.

RG: Have a think about it. What does he look like?

Child 3: A monkey!

RG: Does he look a bit like a monkey or a gorilla and he's delivering bananas.

Child 3: Aw yeah he must be going to the zoo because he's delivering bananas.

Child 4: Yeah but look but everyone is different because he looks like an eagle, he looks like cow.

RG: So you are inferring that these people look like animals. That's interesting.

Child 3: He looks like a pig.

RG: there's a pig yeah and he's got... It's almost quarter past now and we are all going to focus on one question. You all have a pencil there, I want you to put your pencil on the question you want us to focus on today – Put your pencil on the questions. I can read them out if you like.

Child 4: Yeah read them out.

RG: What could have happened up this page? That's the last but one page What's different and what's the same? What could the woman be thinking and what would she say to the others? The page we are going to be talking about is this one – gestures. So thinking about the questions which one do you want us to talk about?
Children vote

RG: So you all think this one yeah? Ok if we do this one first then if we have a bit of time we'll look at the others ok?

RG: Right we do this one first and then if there's a bit of time, we'll do that one yeah? Ok, lovely. What's different and what's the same? Looking at these 4 people ****,

what's different, what's the same? What have they got in common? They have gotten hats on.

Child 5: They do.

Child 3: He's fat and they're all skinny.

RG: That's different isn't it. What's the same about all of them?

Child 4: They're all wearing jeans.

RG: Do you think? What do you think they're relationship could be?

All children: Family

RG: Family? Now it hasn't said family anywhere because we have covered up the words so how do you know they're family?

Child 3: Because...

Child 4: (interrupting) Because the colour of the hair

Child 5: because they've been going...

Child 2: because of the colour of the hair, they have all got brown hair.

RG: She could be the couldn't she. How do you know she's not the nanny?

Child 4: She looks quite young though.

RG: She does look quite young. So thinking about what's different, what's different about her?

Child 3: She's the only girl.

Child 4: She's got a fringe.

Child 2: She's angry.

Child 5: she's the only girl.

RG: She's the only girl, she's got a fringe. What about her face?

Child 3: She's a bit like [makes facial expression]

RG: She looks a bit glum, you're making glum expression there. Would you say a bit sad?

Children agree.

Child 1: She looks like she could never be happy.

RG: Why do you think she could be sad and the rest of the family are happy?

Child 2: Maybe someone in her family died and she's just sad.

RG: Why do you think she's sad?

Child 4: Maybe she has a secret that no one else knows about

Child 6: Maybe she doesn't want to go to the zoo.

RG: Oh you've come up with a good one right. Maybe she doesn't want to go to the zoo. Let's have a look at the book right and look at the woman and see what the story of the woman is.

Child 1: She keeps standing right far back so maybe she's afraid of animals.

RG: Let's focus on her, she's saying something there but we don't know what it is. It doesn't really focus on her. She's not in many of the pictures It's all about the males. We decided they might be fighting. And you thought she was crying. And you said his face was angry but it's a bit - makes a happy face – to me I personally think he's laughing.

Child 3: Me too.

Child 6: I think he's laughing.

RG: There's penguins opposite how do they feel? Look at the tiny bit of water they've got.

Child 2: It's so mean.

RG: What do they look like, these two boys? Who said Monkeys – do they look like monkeys?

RG: Look at this picture. How does she feel now? What's she doing with her mouth?

Child 2: She looks happy

Child 4: I don't think she looks happy

RG: You think she looks happy? But **** said she looks annoyed. So she's smiling... so we could infer that she's happy, but you've taken it that she looks annoyed – yeah, maybe exasperated would be the word.

Child 4: When I'm bored I look like this.

RG: Look at this picture. They're looking at the – that's an orangutan.

Child 4: I thought that was a sloth.

RG: Have you ever seen an orangutan in a zoo?

Child 3: He looks sad

Child 1: Oh look at that baby.

RG: Yeah, he does look sad.

Child 2: That baby has sunglasses on

RG: Oh yeah, he does have sunglasses on.

Child 1: Look at the dad!

RG: You said look at the dad. How do you know that's his dad?

Child 1: Because they look exactly the same

Child 4: Because he's got sunglasses on

RG: Ah, interesting!

Child 6: And he's right by the pram

RG: Yeah

Child 5: That one on the end looks like a lion

RG: This one looks like a lion?

Child 1: Why has he got sunglasses on?

RG: Why has the illustrator made them all look like animals?

Child 3: Because they're at the zoo.

RG: Because they're at the zoo..

Child 4: He looks like a monkey!

RG: So you've decided that they are a family, thinking about families, what animals would the family be?

Child 6: They're monkeys.

Child 4: I think that's the dad from Harry Potter.

RG: Ah, there was a picture of him doing something, wasn't there?

Child 2: Yeah

RG: Was he beating his chest?

Child 4: Yeah

C3: A baboon!

Child 6: A gorilla!

RG: You think he might be a gorilla? Now – look at her and her face, and how they are behaving

Child 5: He is a gorilla!!

RG: **** Tell me, how have the children been behaving at their day at the zoo?

Child 1: Like -

RG: - How's he been behaving, banging the glass, beating his chest, laughing at the animals.

Child 1: Like a gorilla.

RG: Do you know what the word obnoxious means?

Child 4: It's like she's the only human.

RG: How does she feel? Look at her face?

Child 3: She's probably sad she's the only one whose actually different.

Child 4: She's the only girl.

RG: How does she feel about the zoo?

Child 3: I don't think she likes it.

RG: I don't think she likes it.

Child 2: Maybe whenever they go to the zoo they act differently and she gets embarrassed.

RG: I think if we looked through this book again and focused on the animals we might, well if we didn't look at this page at all [indicate the left page] we might notice something else.

Child 2: The gorilla!! And he's doing that! [beats on chest]

Child 3: Look if you focus on his eyes he sort of looks human.

RG: That leads us onto this question. What could the woman be thinking? Have a little think. Ten seconds to have a think.

RG: Tell your friend, what do you think she could be thinking.

Child 1: Are they going to do anything? Like running into the enclosure. Are they going to do it again, are they going to smash the glass.

Child 6: She might be embarrassed.

RG: Embarrassed!

Child 3: They might be going in and like, fighting

RG: Yeah! What do you think.

Child 6: She could be embarrassed because um, they are all behaving badly in front of loads of um..

RG: They are, aren't they!

Child 4: He looks like a monkey!

Child 3: A monkey

Child 4: They look like monkeys

RG: I want you to turn to the last page of you book now ok. The very last picture.

Child 4: He's in the zoo!

RG: What would happen if the family was in the zoo?

Child 3: He's in the cage

Child 2: There's a shadow

RG: How would you feel if you were in the cage? Being looked at and tapped at.

Child 1: Lonely and sad

Child 4: But maybe he has a brother in there because he's a monkey too!

RG: Maybe. What do you think the message is? What do you think the author might be trying to say?

Child 2: Don't be naughty?

RG: I'm going to ask *** because you've been keeping quiet and I think you've been thinking! Looking at this picture and thinking about all the animals. We are inferring what the animals might be thinking and feeling. Look at this dirty water. Small spaces, bars everywhere.

Child 3: Ohh he's hiding!

Child 5: It's a bad place to live

RG: A bad place to live. DO you think the author thinks it's nice for the animals to be in the zoo?

Child 5 [shakes head]

Child 4: Can we look at the words after?

Child 3: What happened to the animal that was in there?

RG: I'll tell you what, I'll read this book to the class.

Child 3: Are we finished now?

Interviews

RG: Right, now, so Miss Williams is going to ask you some questions about the learning. [summarises the session] There's three to ask, if you pick three names from these without looking so it's random. [To AW]

AW: Picks names. So, did you enjoy the book? Did you enjoy?

Child 6: They should belong in a zoo...

AW: Who?

Child 6: All the people. They've got different feet and some have horns.

Child 3: People who are animals go to see the real animals who are in the zoo. They are in cages and I think they should be the ones who are in the cages. They are basically animals and they, it's like it's not fair for the animals who are actually in the cages.

AW: Did it make you feel happy or sad?

Child 3: Like I felt sorry for them. I felt sorry for the animals in the cages.

AW: which was your favourite part?

Child 5: The traffic jam?

AW: Which was yours?

Child 1: I don't know.

Child 4: Probably the end bit

AW: When the boy was in the cage? Why was that bit your favourite?

Child 4: You could see that it's not just the animals that were in there.

AW: Why was it your favourite?

Child 5: Because the man was shouting and the boy had his tongue out.

AW: think about the questions that Miss Grostate asked you, was there any question that you wanted to have more time to answer? Or any questions you needed ore help to answer?

Children hesitate

RG: If you think of anything negative to say, you can absolutely say it!

Children shrug

AW: How do you feel the way we read this book relates to reading another book or something else you do in your lessons?

Child 1: We do guided reading like we do now.

AW: Like this? This is how you do guided reading? DO you only look at pictures or so you look at words too?

Child 4: We look at the words.

AW: SO the words help you to tell you what's going on, yeah?

RG: Was it hard or easier?

Child 4: Some ways it was easier?

AW: Was it harder in some ways because you didn't know how they were feeling because you didn't have the words?

Children nod

AW: So, if we came back and did this session again, what would you like to do differently?

Child 4: Only look at words and not pictures.

Child 5: We could make our own pictures!

AW: You'd rather have just the words so you can think of pictures yourself.

AW and RG thank children. Session ends.

Appendix 8: Transcript from audio recording of Lesson 2: 28th March 2018.

Guided Reading Session: School B

Date: 28/03/2018

Duration: 39 Minutes and 32 Seconds

Children are leaning forward coming off their chairs. All engaged and excited to contribute. Children occasionally gaze over to me (observing from another table). Children smiling and excited

AW: We're going to be using our inferring skills. Does anyone know what inferring means?

C1: Umm, it means if you look at the picture, um, like, if it was a dog you can tell from the picture that it has four feet

AW: Good. So, we did inferring skills when I was still here, do you remember? We read that book ****

All: Oh yeah

AW: We used our inferring skills then, so when we use our inferring skills, what you do is, we look at a picture and we make assumptions, we make sensible guesses based on what we see. Yeah?

C1: The faces look creepy, especially the dad.

AW: Creepy! Ok!

[Hands out books, organises children into two groups]

AW: Now before you open the book, I want you to look up to page 20. I'm going to give you 5-10 minutes to look at all the pages – lots of pages – up to the page with the gorilla on and think about what you can infer – what can you infer from the pictures.

Group Chat (voices heard in the children's self-led discussion)

You've covered the words, so we can infer.

Family, it's a family

the dad, the mum, the children

Someone bumped into his car

There's a monster.

This is a random room.

This is where the elephants are!!

The elephants are lonely

This is hard

It's a pet shop

Look how long the tiger is

Is he a monkey or something?

Animal zoo – animal zoo.

There's a beard on his tummy

That's so dirty

They are fighting

Where do you think this is, what do you think this is?

Maybe he's turned into a cloud-man

He's so creepy
We have to think. What's he doing?
Look, he's got the horns!
Yes, that's what I was thinking
He's SOOO creepy.
He's in the sky and angry.
That's just a cloud shape.

AW: Ok and stop. Have you all had a chance to look through?

All: No, yes, a bit.

AW: Who wants to share with us what they initially think about the book. Initial feelings? ***

C1: Um ummm that they are at the zoo?

AW: What makes you think that they are at the zoo? How do you know?

C1: Because it says here. [indicates to title page]

AW: It doesn't say at the zoo. What does it say?

All: Zoo

AW: So, what else is in the book that makes you think they are at the zoo?

C2: Animals? Lots of animals.

C1: Almost all of the animals are caged?

AW: What does that make you think about the animals? They are all in a cage, what does that make you think?

C1: That they are kept safe.

AW: They could be kept safe, yeah.

C1: They are not in the wild.

AW: They are not in the wild, yep, so they are kept safely.

C1: And, I know on one page it says - there's a sign that says toilet and the elephant.

C4: What are they doing?

AW: The toilet and the elephant?

C1: Yeah. There's a sign.

C5: There's a toilet here - um

AW: So that makes you think it's a zoo because there's a sign for a toilet?

All: laughter

C1: Because in wild places they don't have toilets.

AW: Very true.

C3: Because they have – and it says that way?

AW: Ok, who else wants to share their initial thoughts?

ALL: children mutter about the house and talk about the penguins

C2: Oh – OH that the penguins are swimming in the swimming pool!

C2: It's a swimming pool

AW: Why do you think it's a swimming pool?

C1: There's walls around it and it's deep.

C5: He's got happy tears.

C1: He's laughing

C6: He's laughing at the penguins.

AW: Look at the page with the gorilla. What can you infer?

C1: He's ginormous

AW: Why do you think he's ginormous?

C1: His face is the size of a window.

C5: The scared the family away.

AW: You think they scared the family? Why do you think they are scared?

C4: He's scared the family because he's so big. Maybe they thought he was going to catch him.

C6: Or maybe because the gorilla looked at these uh these hats. The gorilla looked at their monkey hats and he might have thought they might be friends.

AW: What makes you think that, why do you think are they friends?

C4: Because they are similar

All children: look similar

AW: Ahh look similar!

C4: And he thinks they might just be different colours

AW: When you look at this picture of the gorilla, what does it make you feel?

All children: Angry - happy – scared - happy

AW: Why does it make you feel angry ***?

C1: Its staring right into her eyes like a demon. (all children say 'yeah')

AW: How does it make you feel happy ***

C1: I'm happy because I get to see a gorilla

AW: Do you like gorillas? Oh ok.

C1: Not if he eats my chicken in a box?

AW: Why would a gorilla eat chicken in a box?

All children laugh

C1: He's got a big mouth to fit them in

AW: Fair enough.

Inaudible.

Choose questions:

AW: So, I'm going to lay these questions out, I want you to decide which one we are going to focus on.

AW reads out questions and children vote.

AW: Think about... touch your brain... Think for 30 seconds. What could the woman be thinking? Look at this page. What do you think she could be thinking about? Think for 30 seconds. What would she say to the others? What could she be thinking?... 15 seconds... activate your brain... Ok, who wants to share first?

C2: She's thinking about the gorilla.

AW: what could she be thinking?

Child 2 very hesitant. AW encourages.

C2: (very quietly) She is thinking it might eat her.

AW: Child 4 – what do you think?

C4: I think that umm... She thinks this is not a good idea.

AW: What makes you think that? What makes you think it's not a good idea?

C4: because the gorilla looks angry.

AW: He looks angry?

C1: Well, he's not smiling.

AW: Do gorillas smile?

C1: No. I said no.

AW: Oh. ** what do you think? What do you think she's thinking about?

C3: I think she's thinking about if all of these boys put their hand out and give the gorilla food it will bite his hand off.

AW: Do you think he would do that, do you think they will put their hands in the cage?

All children: No... Ooh oh ... Yes

AW: Because they are behind the barrier aren't they – do you think they would put their hands over it

All: Yes

AW: Why?

C1: Um. Because. See. Look at the picture, they're hands already over the edge – the gorilla might pull- drag them in

AW: Ok thinking about what's she's thinking, what do you think she might say to them = to the other people there. Who hasn't spoken *** you haven't said much today. What do you think?

C5: I think she'd tell them it's not a good idea.

AW: Why do you think she'd say that? what makes you think she'd say that?

C5 – Because He looks hungry.

AW: He looks hungry – what makes you think he looks hungry?

C5: He looks hungry.

AW: Ah he looks hungry - *** what do you think she's going to say?

C4: ...catch them

AW: You think the gorillas going to catch them? Oh, my goodness, what makes you think he's going to do that?

C4: Look at his face.

AW: That's really good response boys and girls. I want to ask you. Look at this picture – do you know what this animal is?

ALL: its very hairy...ape...

AW: It's an orangutan

C1: They are nearly extinct.

AW: What do you think the orangutan is feeling. How do you think he feels?

All: Sad.

AW: What makes you think he feels sad?

C1: Because he is lonely and

AW: Because he's lonely?

C1: And everyone's taking photos of him

C3: And they are laughing at him

AW: ***?

C2: He might be shy.

AW: You think he might be shy? Why do you think he might be shy?

C5: Shy, because he's not used to seeing big...things like that.

AW: Why do you think he might be shy, if you look at him, why do you think he might be shy?

C2: He's got his back to them.

AW: Because he's got his back to them. Oh wow!

C1: he is angry because they are making faces.

AW: You think he's angry at them?

C1: Because they are making faces at him.

AW: that's a really good idea.

Focus on animals or people.

All Children: Animals

AW: Look at the pictures of the animals for 1 minute and then I'm going to ask you some questions about them.

C3: That... This lady over here is, is like a cat because she got these ears over here.

C1: (interrupting) this ones' a dog...

AW: So, you think these people look like...what do these people look like?

All Children: Animals

AW: You think these look like animals. What makes you think they look like animals then?

C1: Cos of their mouths and facial features. Monkey monkey monkey toddler.

AW: Now have a look at the actual animal pictures. Who wants to share something they have noticed about any of the animals? Instead of just saying what you see, why don't you tell me something...

C1: (Interrupting) Interesting?

AW: Yeah something interesting. Using your inference skills and tell me something I might not have noticed at first. You told me from the orangutan photo that you thought he was sad, you thought he was lonely. But it doesn't tell me in the photo he's sad or lonely. You have inferred that. So, now I want you to look at the other animal pictures and tell me something you have noticed, something you have inferred.

C1: All of them or most of them are dangerous because they need lots of space.

AW: What makes you think they are dangerous?

C1: Um cos they have bars around them so they can't escape.

AW: You think they have bars around them so they can't escape... That's really interesting ****. Has the book told me these animals are dangerous and need to be locked in?

All Children: No.

AW: So, **** has just inferred that from the picture. Who else wants to infer something for me? ****?

C6: I think the polar bear is trying to escape because all the ice is breaking.

AW: Why do you think he wants to escape?

C6: He wants to escape, he's trying to escape because the ice is broken.

AW: How might the ice be broken?

C6: Um.

C1: Because of the temperature.

C6: Because of the sun.

AW: You think he is trying to escape so, what else could have done that to the ice?

C1: His claws

C5: The weight of the cage.

AW: You think the cage weighed the ice down? That's really interesting that is. So, I have 1 more question for you. Look at the picture of all these people. What is the same and what is different about these people? What do you notice?

C1: What do you mean?

AW: So, look at all of these people, what do you notice is the same about them and what is different.

C4: They are all human beings.

AW: They are yes, what else do you notice? ****?

C1: The little boys are always happy.

AW: Good, what about you ****?

C2: The little boys have monkey hats on.

AW: What about something the same about them, what is the same? *** Do you notice something the same?

C3: Um that um, that one of them is wearing different clothes.

AW: They are all wearing different clothes. But what's similar about them? What Makes them look the same... ****?

C6: Um...

C1: I notice something different about them.

AW: ****?

C1: Can I say something different?

AW: Yes.

C1: That the lady has emotions.

AW: She has different emotions. What makes you think that?

C1: She looks sad in this one...

C6: (interrupting) she looks worried.

C1: (continuing) she's sad in this one and then she's happy in this one.

AW: What makes you think she could be worried?

C6: Cos she could scared that the animals could come out of their cages.

AW: Oh maybe.

C3: That the two boys are like wearing the same hats they got the same kind of face but different clothes.

AW: So, who do you think they could be to each other?

C3: Twins.

C6: Brothers.

C5: I think they're twins.

AW: Why do you think they are twins?

C6: They do everything the same.

C3: And they look the same.

C1: But they aren't the same because the one in green is taller than the one in blue.

AW: Is he taller? Oh, I didn't even see that. So, you don't think they're twins?

C1: I still think they're twins I just think one is taller than the other.

AW: So, you don't think they are identical?

C1: I still think they're identical but the age and the height... is different.

AW: Does anyone else want to say anything about the book? Anything else you are dying to tell me or you might explode?

C6: I think that's the mum and dad, are sad and angry and the children are always happy.

AW: The children are always happy.

C6: Yeah and the Mum and Dad are angry.

AW: Why do you think they are angry?

C6: Because they don't like the children.

AW: Because they don't like the children? *laughs*

C6: No because they don't like the children going near the bars.

AW: What makes you think she's angry at the children going near the bars?

C6: Cos um the animals might harm them.

AW: Maybe. Yes *****.

C1: Um the Gorilla might be strong enough to bend the bars and jump out.

AW: Oooo what makes you think that?

C1 Because Gorillas have incredible strength.

C3: Yeah they do.

AW: How do you know that? What makes you think that? You just know that?

All Children remain silent.

AW: Ok, so look at this Gorilla, does he look happy?

All Children: No...

C1: Grumpy, like grumpy cat.

Aw: If you turn over to the next page. What does that page make you feel with the little boy?

C5: Sad.

AW: Why does that make you feel sad?

C1: Because he's in prison.

AW: Why do you think he's in prison?

C3: Because of the shadow of the shadow lines of the bars.

C1: Because he's being a little monkey boy.

C4: I think he was just sitting against the wall.

C1: I think he's sad because he's locked in.

C3: I think he's stuck in the animal's cage.

AW: Why do you think he's stuck in the animal's cage?

C3: Because he's stuck in the animal bars.

C1: they swapped places... He dragged him in.

RG: You think the Gorilla dragged him in?

Interviews

RG: Did you enjoy the book?

All Children: Yes.

RG: OK, thinking about the book, overall, did it make you feel happy or sad?

Children talk over each other: Happy and sad.

RG: In the middle, ooo, can anyone think of why?

C1: I felt weird because of their faces, in part of 1 of the book one of the little boys' faces is bleeding and roughed up *flicks through book* here.

RG: Hmmm yeah,

AW: Why do you think he's bleeding? Have they been fighting?

RG: What was your favourite part of the book?

Child 3: My favourite part was the end of the book.

RG: Really why? Do you mean the shadows of the bars and the little boys?

C3: Um yeah because

C1: Because he's annoying

C3: Because it looks like um...

RG: Do you have a question about it?

AW: Don't be afraid to say what you think guys.

RG: How do you feel about where we are sitting? We could have done this in the classroom with everyone else? We could have done this in the corridor? How do you feel about this session in here with me and Miss Williams?

C1: Happy because we don't have to do any writing.

AW: Is better in here or better in the classroom?

All Children: In here.

C5: it's like silent in here.

AW: Its pretty loud in the classroom.

C6: When everyone was talking, you can't concentrate on what you were doing.

RG: Think back to the questions you were asked during the session, what did you think about them?

All Children: We all forgot what they were.

RG: Think about these questions you have been asked throughout. The session we are doing is designed to help children learn better. Is there anything we can do to make this session better for other children in the future?

C1: Make the questions more interesting.

RG: If you wanted to ask a question to other children about this book what would you ask?

C1: How many different moods are there? So, they would have to pay special attention.

AW: That's an excellent question *****.

C6: What is the book about?

RG: That's a good one because we haven't told you what the book is about. We covered up all the words so you have to make assumptions on it haven't you.

C1: What is an assumption?

RG: An assumption is where you make a guess about something. Like you could assume I am a teacher because I am here with Miss Williams and you would be right.

C1: I still don't get it.

AW: Well ****, you told me that the Gorilla is grumpy, now it doesn't say he is grumpy in the book, does it?

C1: No.

AW: So, you have assumed, you have inferred that he is grumpy based on what you saw in the book

RG: How do you think this session relates to your every day learning? I am not going to give you any clues about how to answer that ok. How does it related to what you do in the classroom? When you're reading other books.

All children: (mumming) Um... I... Um...

RG: Looking at your faces I am guessing this is a tough question to answer.

All children: Yeah it is.

AW: In Guided Reading with SO and LK do the words make it easier or harder? If I uncovered the words in this book would it make it easier or harder to answer my questions?

All Children; Easier

AW: So, because I have asked you to infer, if the words were there then you would know exactly what was going on and who the characters were.

C1: Obviously.

AW: So, when we say how does it relate to your everyday learning, we mean do you use inference skills in your everyday learning?

All children; Sometimes.

C1: Only if we are using a picture book.

AW: OK, so you sometimes use them. What sort of session is that. Is it a guided reading session, or maths or geography?

C1: I don't know which session.

C3: Or me.

C2: Neither do I.

RG: That is a difficult question.

C1: Obviously, we are going to be in a reading session.

C4: In Guided reading sessions.

RG: So, do you think that if you picked up a reading book and flicked through the pictures, do you think you can get the gist of the book?

All Children agree

C1: Sometimes I do that with my reading book at home.

RG: Imagine if you went to a library on holiday where you didn't speak the language do you think it would work there?

All children murmur in agreement

RG: If we did this session again with you what would you change about it?

Child 4: Nothing.

C1: Use a different book because the faces in this book are creepy.

RG: They're creepy?

C1: Do like a book with animated characters.

AW and RG Thank the children for participating.