

M7X2152

Student Number: 17



RESULT



ASSIGNMENT DETAILS AND FEEDBACK

SOUTH WEST WALES CENTRE FOR TEACHER EDUCATION

*Sections marked with * should be completed by module lead*

Student name:	Freya Price	Student P number:	1702289
Programme: *	PGCE Primary		
Module: *	The Enquiring Teacher	Module Level (6 or 7):*	7
Module code: *	M7X2152	Contribution to Overall Module Assessment (%): *	100%
Module Lead:*	Catherine Morgan		
Assignment Title:*	Write a critical and analytical essay that discusses your practitioner research 'lesson study' in relation to a chosen field.	Assignment No (x of x):*	1/1
Start date:*	09/01/18	Submission deadline:*	16/04/18
Return date of provisional marks & written feedback:*			

Referencing:	In the main body of your submission you must give credit to authors on whose research your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have read or quoted in order to complete this assignment (e.g. for books: surname of author and initials, year of publication, <u>title of book</u> , edition, publisher: place of publication).		
Submission:	All assignments must be submitted to Turnitin unless otherwise instructed by the Lecturer. Note: the Turnitin version is the primary submission and acts as a receipt for the student. Late submission of the electronic version of the assignment will result in a late penalty. Penalties for late submission: Up to one week late, maximum grade D. Over one week late, Refer. Only the Extenuating Circumstances Panel may grant an extension.	Date:	16/04/18
Module lead to tick to indicate if a hard copy version of the assignment must be submitted.*			YES
			NO ✓

Learning Outcomes tested (from module syllabus)	Assessment Criteria: To achieve each outcome a student must demonstrate the ability to:
•Design and apply appropriate research methodologies demonstrating a critical understanding of the nature of educational research •Conduct a small scale research enquiry to improve an aspect of personal practice and learner outcomes, showing some originality and rigour in the application of appropriate research skills •Critically evaluate research evidence, showing sound judgement of complex data to support pedagogic decisions •Critically reflect upon the importance of ethical procedures within classroom based research, and apply these procedures appropriately	• Discuss the intended professional data collection justifying its suitability and purpose; • Support the study by referring to a range of relevant literature; • Integrate theory and practice with regard to the pedagogic context; • Undertake a critical evaluation of the study; • Discuss the ethical issues that should be considered during the study • Write a well-structured piece of work in a coherent writing style

MARKING CRITERIA AND STUDENT FEEDBACK

This section details the assessment criteria. The *extent* to which these are demonstrated by you determines your mark. The marks available for each criterion are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

Common Assessment Criteria Applied	Grade awarded
1. Subject Knowledge and Understanding (which includes using research-informed literature and knowledge and understanding of the subject) Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions. Extent of knowledge and understanding of concepts and underlying principles associated with the discipline.	
2. Intellectual Skills (Analysis) Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence	
3. Pedagogic and Professional Applications (Practical Application and Deployment) Deployment of pedagogic methods, materials, tools and techniques; application of concepts; formulation of innovative and creative solutions to solve problems. Attributes in professional practice: individual and collaborative working	
4. Key Transferable Skills Deployment of appropriate media; presentation and organisation.	

Assignment Grade (Assessment grades are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)	Late Submission Penalties (tick if appropriate)		
	Up to 1 week late	D Max	
	Over 1 week late	Fail	

Student Self Evaluation Form

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

Student's Name	Freya Price	Date	15/04/2018
Student's Signature	F. G. Price		

**How can pupil engagement be improved through the
use of interactive activities in a Key Stage Two
classroom?**

The Enquiring Teacher

M7X2152

Word Count: 6,548

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Purpose of research

Since the review of the curriculum within Wales conducted by Donaldson (2015), attention has been drawn away from the content of *what* teachers teach, towards a focus of *how* it is taught (Donaldson, 2015). During my recent placement I identified that lesson introduction mainly took the form of teacher-led instruction, which led me to consider if this was effectively engaging my pupils. With this in mind I set out to investigate if by planning lessons that would encourage children to challenge their thinking and extend prior knowledge through interactive activities, their engagement with their learning could be improved.

Research context

This study was conducted within three Key Stage Two (KS2) classes across two different schools. The first school is a large school of over 700 pupils with a Free School Meal percentage of 12.1%, notably lower than the national average (Welsh Government , 2017a). The first lesson study took place within a Year 5 mixed ability class of thirty pupils. The second was in a Year 6 mixed ability class, also of thirty pupils. Teaching within this first school followed a very traditional style, where pupils were accustomed to a teacher-led style of instruction.

The second school, in which the third and final lesson study took place, was a smaller school of 428 pupils with 9.5% of pupils eligible for Free School Meals, again significantly lower than the national average (Welsh Government, 2017b). This lesson study was conducted within a mixed ability Year 3 class of twenty-eight pupils. Lesson planning within

this class had begun to incorporate more interactive activities; however, it had not yet been assessed by the teacher how these activities could affect pupil engagement.

Following much discussion within our triad, and in light of our experiences within these settings, our research question was formulated: we aimed to investigate how pupil engagement could be improved through the use of interactive activities in a KS2 classroom.

Literature Review

There is considerable literature surrounding pupil engagement and it is widely recognised that there are many potential contributing factors that can influence engagement within the classroom, such as class size, teacher-student relationships and pupil behaviour (Blatchford *et al.*, 2011; Roorda *et al.*, 2011). A strong correlation can be identified between engagement and higher levels of pupil attainment (Fredericks *et al.*, 2004). Additionally, through a meta-analysis of research, Marzano (2007) identified that pupils that learn within a classroom deemed to be highly engaging outperform their peers.

Through an analysis of research surrounding pupil engagement Silver and Perini (2009, p.324) identify that unless lessons are designed and delivered by teachers in a way that 'will strengthen students' commitment to learn, then we cannot expect them to take an active or in-depth approach to learning'. This statement leads to the questioning of the way in which teachers can design a lesson that is successfully engaging for their pupils. Consequently, Silver and Perini (2009, p.330) developed a 'blueprint model' which has combined 'five different learning experiences that help students construct knowledge' identified in figure 1.

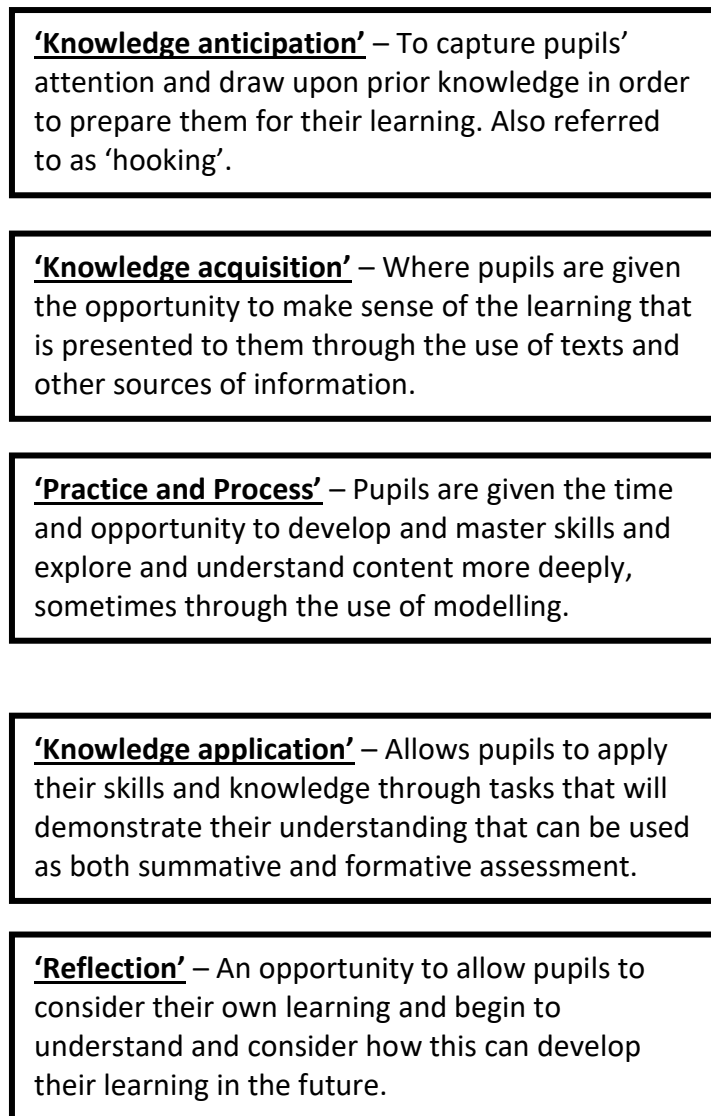


Figure 1 (Silver and Perini, 2009, p.331).

The use of these five learning experiences was observed by Silver and Perini (2009) within a classroom environment and it was found that this lesson design enabled the teacher to provide an opportunity for learning that engaged all pupils with differing learning styles. By using a multitude of strategies and instructional tools pupils were able 'to capitalize [sic] on their strengths and to correct or compensate for their weaknesses' (Silver and Perini, 2009, p.340), thus actively engaging pupils and allowing them to take control of their own

learning. This case study presented by Silver and Perini (2009) clearly highlights an importance of lesson design on pupil engagement. However, as this is only representative of one teacher and one class of pupils, it must be viewed cautiously.

Nevertheless, this emphasis on the link between pupil engagement and the structural design and planning of lessons is additionally discussed by Skowron and Danielson (2015); they highlight that careful selection of activities within a lesson is crucial to ensure that they not only provide practical applications and enjoyment, but also enhance pupil motivation and interest where they can learn essential skills and concepts. In support of this, Jensen (2005) identifies 'brain-based strategies' that can be implemented to extend pupils' understanding through learning activities. These activities will allow them to physically do something to encourage them to be creative and make connections in their learning, thus increase pupil engagement.

Confer and Ramirez (2012) highlight the importance of maintaining pupil engagement throughout lessons, placing particular importance on immediately capturing the interest of pupils from the beginning. An effectively engaging lesson introduction is often referred to a 'hook'. The hook of a lesson allows children to draw upon prior knowledge and make connections within their learning to construct new knowledge, encouraging learning that 'will be continuous' (Beirne and Velsor, 2012; 31). Aberson and Light (2015: 15) similarly state that the use of the hook promotes 'thinking from the very start of the lesson' and therefore immediately capturing the engagement of pupils.

When further considering the effectiveness of lesson introductions in promoting engagement Carroll and Alexander (2016) state that lesson introductions can be varied, and it is often beneficial to plan a selection of introductory activities that encourage group work, offer varied opportunities and engage all learners. Successful lesson planning is derived

from an awareness of pupils' differing learning styles, where activities are utilised to provide variety and 'engage interest' (Grigg, 2010: 258); for example, incorporating the use of resources such as post-it notes for pupils to record their ideas or questions, and providing opportunities for interactivity and visual aids. Moreover, Grigg (2010) emphasises the need to provide opportunities for pupils to not only collaborate with their peers, but also moments where they can reflect and learn individually.

Yusmanto *et al.* (2017) conducted action research that explored the use of carousel and cooperative learning methods within the classroom environment. Despite being based outside of Wales, this research puts forward interesting results; it was observed that the carousel and cooperative learning methods allowed pupils to explore subject matter both independently and in groups. They provided variety in their learning which resulted in pupils displaying improved engagement with higher order thinking skills, group discussion and questioning skills. This coincides with evidence presented by Hattie (2012) which states that peer-learning can have positive effects on the motivation and skills of the learners.

Carousel activities can be used to form part of the introduction to a lesson, where small groups of pupils rotate between a variety of activities within the classroom that provide them with the skills and knowledge surrounding a chosen topic area. This strategy of teaching fosters an active learning approach in which 'learners play an active rather than passive role in the learning experience' (Grigg, 2010: 105). Using carousel activities and active learning strategies within a Key Stage 2 environment is influenced by the curriculum found within the Foundation Phase in Wales, where learning is facilitated through exploratory and child-led activities that challenge thinking and develop independence (Welsh Government, 2016). This extension of the Foundation Phase philosophy into KS2 is

advocated by Donaldson (2015) who notes that in schools where this strategy has been adopted it has in fact been found to improve the engagement of its pupils.

It is clear from the literature that a link can be drawn between the implementation of effective teaching strategies and pupil engagement. Therefore, this study will investigate whether the use of interactive and child-led activities during the introduction of a lesson can have an impact on pupils' overall engagement.

Methodology

With the intention of fulfilling the aims of this research, data and evidence was collected using a lesson study design. Lesson study originated in Japan during the 1870s but has since become a highly valued strategy within many educational systems in Western countries. Dudley (2011, 2015) encourages the use of lesson study, acknowledging that it is an effective tool of continuous professional development that should be adopted by schools. This recognition of the importance of teachers' professional development is significant for education within Wales, with Donaldson (2015) highlighting the need for teacher development in light of the proposed curriculum changes ahead.

Lesson study enables teachers to observe how pupils learn in a way that is not normally achieved within the teaching environment; highlighting gaps in pupils' learning that allow teachers to plan according to need (Dudley, 2011). Stepanek *et al.* (2007) further state that lesson study allows professionals to observe the interactions made between pupils, while also allowing for the examination and reflection upon teaching materials and lesson content that is utilised and their impact on pupils' learning.

The methods of data collection used within the lesson study are non-participant observation and focus group interviews. Non-participant observation allows the observer to remain focussed on taking accurate notes without the distraction of other responsibilities while also maintaining objectivity (Papatheodorou *et al.*, 2012). As the two non-participant observers within each lesson study are unfamiliar with the class they observed, they will not be influenced by any pre-conceptions about pupils, while also having little influence on the behaviour of the pupils. It is however noted by Papatheodorou *et al.* (2012) that it is crucial to consider the potential 'observer effect' that can occur within observational research. As informed consent was attained prior to the lesson study Papatheodorou *et al.* (2012) state:

Inevitably this introduction draws the children's attention to you and may lead to observer effect, in that the children present their 'best' selves or demonstrate behaviours they assume you want to observe.

(Papatheodorou *et al.*, 2012: 78)

Within the lesson study, researchers considered their positioning in the classroom in an attempt to minimise such observer effect.

Data from the observations was captured in the form of field notes using the observation schedule presented in Appendix 1. Bell (2014: 214) identifies that the use of an observation schedule is a form of structured observation that ensures consistency within the data collected and 'can take the form of a checklist, a diary, chart, time or critical incidents log – or whatever approach suits your purpose'. Within the lesson studies each child's engagement was observed during specific activities during the lesson with the observers recording how each child interacted within peers and their involvement with each task. Lodico *et al.* (2010) state that this style of descriptive note taking during observational research allows the researcher to record and describe what they see and hear within the setting without subjective comments.

In addition to the observational notes recorded within the lesson, pupils' engagement was measured using The Leuven Involvement Scale (see Appendix 2). This tool created by Dr. Ferre Laevers (1994, cited in Papatheodorou, 2012: 164) enables children's responses to experiences to be assessed. Pupils are scored on a scale from zero to five according to the intensity of their involvement which is 'judged by observing signals related to the child's body language' (Papatheodorou, 2012: 164); for example, their persistence, attentiveness and response to others. This method of measurement is suitable to be used within this research as it allows the researchers to clearly assess which activities engaged the pupils

more successfully in order for this to be improved. Similarly, The Leuven Involvement Scale was successfully used in the 'Effective Early Learning' project (Pascal *et al.*, 1994; Pascal and Bertram, 1997) to improve the opportunities given to children to become more involved in activities.

For the purpose of both the observations and focus group interview, three case pupils from each class were selected giving a sample size of nine pupils in total. Dudley (2011) advocates the selection of case pupils within the lesson study process as it allows the observer to focus on the individual pupil which is found to consequently allow them to better understand the learning needs of all their pupils. It also eliminates the pressure of observing a whole class. Case pupils within this study were selected according to their learning ability using a purposive sampling method. This method allows the researcher to 'hand-pick' participants on the basis of their suitability and relevance to the intended research (Denscombe, 2014: 61). Pupils were selected according to ability to allow researchers the opportunity to establish any connections between pupils' academic ability and engagement.

As an additional method of qualitative data collection, focus group interviews were conducted with the case study pupils following each of the lessons. Interviews with pupils is an essential element within the lesson study process as it incorporates the perspectives of the pupils and can add a valuable insight in to what can be improved (Dudley, 2011; Stapanek, 2007). Furthermore, Cohen *et al.* (2011) highlight that when interviewing children, group interviews are beneficial as they allow the pupils to feel at ease and promotes interaction between each other, thus yielding a much greater quality of response.

Each interview was audio recorded in an attempt to create a more relaxed environment for the pupils during what can seem like an intimidating situation (Cohen *et al.*, 2011). Bell

(2014) recognises that audio recording during interviews eliminates the need for the researchers to be focussed on writing down the responses, allowing greater engagement and interaction with the interviewees. Following each interview they were transcribed by each researcher for easier analysis.

Following the completion of all three lesson studies and interviews all data and evidence was compiled in preparation for analysis. It is acknowledged by Bell (2014) that the analysis of qualitative data is challenging, further recommending that when beginning the analysis stage of the research, it is beneficial to first identify the broad themes that can be identified from the data. By noting down and bringing together the emerging themes, indications of whether the engagement of pupils could be improved through the use of interactive activities were formulated.

Ethical considerations

Throughout this research it was ensured that ethical guidelines set out by both the British Education Research Association (BERA, 2011) and the UWTSD Research Ethics and Integrity Code of Practice were adhered to at all times. Within the UWTSD Code of Practice it is stated that where children are below the age of 16, consent must be obtained by a parent or guardian, therefore it was ensured that a consent form (see Appendix 3) had been obtained from all parents or guardians before the commencement of any research activity. Additionally, it is deemed desirable that children are also involved within the consent process and ongoing assent is acquired from pupils. A statement of intent was read to the pupils before each lesson and assent was gained using the thumbs up resource in Appendix 4; this assent was recorded on the record sheet in Appendix 5. All pupils were made aware that if they wished to withdraw from the research at any time, their right would be respected.

Potential risks to investigators were also considered. The main risk was that of accusations of unprofessional practice. In an attempt to eliminate this risk, neither myself or other members of the research team were alone with pupils at any time throughout the study and all focus group interviews were conducted in open access areas. As this research was conducted within two primary schools, compliance with the ethical, legal and professional frameworks set out by authorities, as well as the safeguarding and health and safety procedures set out by each of the participating schools was ensured.

Lesson study

It was decided by the triad that the lessons within the study would be on the topic of growth mindset, allowing us to plan a lesson that remained separate from the class's termly topic, and one that could be adapted for our varied range of pupil ages and abilities. As it can be seen from the lesson plan presented in Appendix 6 the lesson consisted of a variety of different introductory activities that would challenge and engage pupils' thinking while developing an understanding of the concept of growth mindset. The aim of the lesson was for each pupil to write a letter to a future pupil advising them of how they can develop a growth mindset. It was hoped that this would display their knowledge developed within the lesson.

Lesson study 1 analysis

The lesson began with the teacher setting the pupils the challenge of creating an origami rabbit, followed by a quiz to discover the pupils' mindset. This introductory activity was used as the 'hook' for the lesson. It is clear from the observations taken within this lesson that this activity appeared to spark great enthusiasm amongst the pupils who showed great excitement and real engagement. As it can be seen in the observational notes displayed in Appendix 7 it was observed that all three focus pupils displayed either a level four or five on the Leuven Scale for Involvement, thus highlighting the success of this activity in engaging the pupils. Additionally, following the origami challenge, it was observed that Child 1 showed great engagement with the accompanying quiz, displaying an eagerness to share their opinions and respond to teacher's questioning. However, disappointingly this engagement was not seen in all pupils following the origami challenge. Many pupils continued to play with the origami paper and were therefore distracted during the quiz and not engaged when asked a 'talk to your partner' question, as evidenced in the observational

notes. This prompted the triad to consider how this distraction could be avoided in the following lessons, and a simple solution was derived; as teachers we will ensure that all paper is put away immediately after the activity to minimise disengagement.

During the carousel of activities it was very interesting to observe how the pupils engaged differently with the varied style of tasks. It was clear to see how the format of each task altered the perceived engagement of the pupils, with some appearing to prefer working individually, and others within a group. Child 3 was observed to engage very successfully with peers, discussing and sharing ideas; for example, during the 'All About Me' task (a task designed to be individual) Child 3 opted to engage with peers, comparing their strengths and weaknesses and considering skills that can be improved with a growth mindset (see Appendix 13). This observation highlights that this pupil has successfully engaged with the activity, seeking to extend their knowledge through discussion with others despite this being a seemingly individual task. This successful collaboration with others was also displayed by Child 3 throughout the other activities.

Conversely, Child 2 appeared to show less involvement in group activities than individual activities. It can be seen in that there is a difference between the levels of involvement scored for the tasks carried out individually, such as the 'All About Me' activity displayed in Appendix 8 and those that encouraged group work as seen in appendices 9 and 10. Throughout the lesson, Child 2 was regularly prompted by the teacher to contribute to the group activities as it was observed that they were relying on others to complete the tasks. Although we had specifically planned activities requiring varying degrees of pupil collaboration, we had not considered to what extent this could affect pupil engagement. Therefore, it was noted that this is something that would be monitored within the observations during the subsequent two lessons within the study.

Considering the engagement of the class, despite good levels of engagement overall, there were areas within the lesson that allowed pupils to lose focus and disengage. This was particularly observed when pupils were completing the sorting activity displayed in Appendix 11. Initially, pupils appeared to be very engaged, quickly matching the statements to the correct side of the mindset brain. However, this task was completed very quickly by all groups and pupils unsurprisingly became immediately disengaged. This is a matter that is also addressed by pupils within the focus group interview (see Appendix 12), where pupils identified that this task was not challenging enough and could be changed to improve the lesson. It was therefore recognised that an extension task would be needed for this activity within the other lessons of the study and in order to minimise disengagement further, less time would be given for each rotation of activity.

Disruption was also observed when the pupils were rotating to their different tables to begin the next activity. Pupils used this time to talk and misbehave with their peers, consequently losing focus and becoming disengaged. In order to address this for future lessons, it was decided that during Lesson 2, I would attempt to teach at a much quicker pace, in the hope it would allow for less fussing and disruption from pupils.

Time became an issue within this lesson due to the disruption between activities and a mis-judgement of how long was needed for each of the carousel activities. As a result it was decided by the teacher that there was not a sufficient amount of time to enable pupils to complete the intended letter-writing task. As an alternative, pupils were instructed to individually produce a list of 'top tips' of how to develop a growth mindset. Pupils were observed to display very good engagement. In particular, in the observational notes in Child 3 was reported to have continued to share ideas with their peers and show an eagerness to display their newfound knowledge within their writing. In support of this, it was additionally

identified within the focus group interview that the introductory activities enabled them to understand and develop a knowledge that could be used in their writing.

Upon reflection of this lesson, it was considered that although pupils achieved the learning outcome and generally displayed good levels of engagement within the lesson, it is necessary that the changes and adaptations identified are implemented for the remaining two lessons in the study.

Lesson study 2 analysis

Following the same plan as Lesson 1, beginning with the 'hook' activity of origami was seen to continue to encourage engagement right at the beginning of the lesson. It can be seen in the observational notes in Appendix 13 that all pupils responded well to the 'talk to your partner' questioning, engaging well with their partner and sharing ideas. Additionally, during the quiz it was identified that pupils enjoyed the use of the thumbs resource (see Appendix 4); it appeared to add a point of interest to the activity and encourage involvement and positive interaction. This enjoyment is evident in the focus group interview with Child 3 stating that they 'liked the quiz activity where we had to put our thumbs down or thumbs up so that you can express your opinion' (Appendix 14). As with pupils in Lesson 1, all three focus pupils were observed to display between a level 4 and 5 on the Leuven Scale during this section of the lesson.

Following the hook exercise, pupils were shown a video outlining the concept of growth mindset, with all pupils perceived to be engaged. Despite this video being successful in both engaging and informing pupils within the first two lessons within this study, it was collectively decided, due to the younger age of the pupils that were due to be taught in Lesson 3, a more age appropriate video would be sought.

Both Child 1 and 2 displayed the high levels of engagement during these activities, evidence by the Leuven Scale scores of level 4 and 5 given by the observers for all tasks within the lesson. Observations made of Child 1 in both clearly identify that they were very engaged throughout the lesson, appearing focussed on tasks, engaging immediately after rotations and holding discussions with peers (see Appendix 13). What is also highlighted is that both these pupils appeared to engage well when working both individually and in a group. It is noted that both pupils engaged with discussion, used others' ideas to inform their own and, in the case of Child 1, use their own knowledge to help and include others.

Conversely, the perceived levels of engagement for Child 3 during this lesson varied throughout, depending on the task in hand. Similar observations were made to those in Lesson 1, where a child's engagement was sometimes found to vary according to whether they were working individually or in a group. Child 3 was observed to display a Level 4 for involvement when completing the 'All About Me' activity (see Appendix 8), completing this activity quickly and with some discussion with peers. However, it appears that when tasked with the more group work styled activities such as creating a bubble map (see Appendix 10), Child 3 was less engaged. According to the observational notes, Child 3 was often viewed to be off-task despite completing some work within these tasks, thus displaying disengagement. This again potentially highlights the link between engagement and preferred learning styles.

As stated previously, it was decided that this lesson would be taught at a much faster pace compared to that of Lesson 1. During Lesson 2, only three minutes was given to complete each carousel activity and it was ensured by myself, as the teacher, that pupils were prompt when rotating between activities. Aiming to eliminate the potential for pupils

becoming disengaged during the transitions between activities, I believe this change of lesson strategy was successful in doing so. In support of this reflection made by myself, the observational notes identify that pupils engaged with all activities with minimal distraction and fuss – an improvement from the previous lesson. These timings will therefore be maintained in the next lesson.

Due to the improved timings of this lesson, the main writing activity was performed according to the plan, with pupils producing a letter to a future pupil. An example letter was given to pupils to guide them if needed. All three focus group pupils showed a great level of engagement; Child 1 was observed to work individually for this task, producing a very high standard of writing and displaying a good understanding of what was taught within the lesson whilst both Child 2 and Child 3 discussed their ideas with peers and used the example provided to aid them with their letter-writing. Correlating with evidence from Lesson Study 1, pupils within the focus group interview of Lesson Study 2 (see Appendix 14) recognised that the introductory activities provided them with skills and knowledge to be able to complete the writing task, thus potentially ensuring their engagement.

All pupils within the class achieved the learning objective, evidenced in the examples of work provided in Appendix 15. Despite the success of this main activity, when considering appropriate changes to be made within Lesson 3 of this study, it was decided that the letter-writing activity may be challenging for the Year 3 class. Therefore, the main activity of the lesson will be for pupils to create a list of 'top tips', as featured in Lesson 1.

Lesson study 3 analysis

When analysing the evidence from Lesson 3 there is a greater variation of engagement between the focus group pupils, each displaying different levels of engagement at different points within the lesson. Child 1 was observed to display a good level of engagement

throughout the lesson, scoring either a level 4 or 5 on the Leuven Scale for each activity, evidenced in the observational notes in Appendix 16. This child engaged both individually and collaborated within a group. During the origami challenge at the beginning of the lesson Child 1 was engaged and motivated to complete the task and during the quiz they were eager to share their ideas and personal experiences of growth mindset. It also carried through to the carousel activities, where Child 1 was observed to use the ideas of others to inform his own and showed great articulation during group discussions. Evidenced by the focus group interview following this lesson (see Appendix 20), through these carousel activities Child 1 began to develop some understanding of the concept of growth mindset. It was observed that Child 1 showed good engagement when completing the writing activity, drawing upon knowledge developed within the lesson and showing determination to successfully complete the activity.

In contrast to the observations made on Child 1, both Child 2 and Child 3 were seen to display a much more irregular pattern within their perceived levels of engagement. During the origami challenge, Child 2 was initially focussed on completing this task, observed to be very excited to be completing this creative activity (see Appendix 16). However, it was noted by myself, as a researcher, that during the quiz and 'talk to your partner' activities, Child 2 became disengaged, continuing to be distracted by the origami paper. Unfortunately, this low level of engagement due to distraction continued within the first rotation of the carousel activities. During the 'scenario' activity (see Appendix 9) Child 2 showed little engagement with the task initially with little peer interaction, until prompted by the teacher. Interestingly, however, during the following three activities, Child 2 showed an excellent level of engagement. It was noted by both researchers, that Child 2 contributed to group discussions, helped peers to extend their understanding and took the lead during the

sorting activity. This broad and rapid transformation in the engagement of Child 2 was discussed by the triad, and we came to the conclusion that it was simply the distraction caused by the origami challenge that caused the child's disengagement. This highlights again that it is essential that pupil distraction and behaviour is managed throughout these activities; something that must be considered within future lessons.

As stated previously within the first two lesson studies, a correlation was found between pupils' engagement and the type of collaboration expected within each activity. This was similarly identified when observing Child 3 in this lesson. The observational notes highlight that Child 3 appears to engage more with activities when they can work individually such as the origami challenge and 'All About Me' activity. While completing these activities, Child 3 was observed to display between a level 4 and 5 on the Leuven Scale, showing great focus and engagement. In contrast, however, during activities which required pupils to work and communicate within groups, Child 3 appeared to withdraw, showing minimal engagement with the activity and scoring a level 2 and 3 on the Leuven Scale.

Discussion

When considering evidence from this research it is possible to state that many of the findings are consistent with the literature reviewed. Within the literature review a link was identified between the structural design of a lesson and the potential engagement of pupils (Skowron and Danielson, 2015; Silver and Perini, 2009; Jenson, 2005). Skowron and Danielson (2015) stated that when a lesson consisted of carefully selected activities, there was the potential to enhance pupil engagement and, indeed, a correlation between the type of activity and degree of pupil engagement was seen across all three lessons.

At the beginning of each lesson, observational notes highlight that the hook activity was found to spark enthusiasm and excitement amongst the pupils. This supports Aberson and Light (2015) in their statement that suggests the hooks can be effective in capturing pupil engagement at the beginning of a lesson, an accomplishment also deemed important by Confer and Ramirez (2012). Interviews with pupils indicated that this element to the lesson was in fact their favourite, which again emphasises the success of securing pupils' interest through the use of the lesson hook. Furthermore, it was identified within the review of literature that by using a hook, pupils connect their new learning with pre-existing knowledge which in turn encourages a more continuous flow of learning and development. Therefore, when considering how the implementation of specific activities can influence the future learning of my pupils, there is the potential to see great benefits.

Additionally, the research showed that pupil's level of engagement appeared to vary according to the activity in which they were taking part. For example, in lesson study 2, Child 2 showed lower levels of engagement during group activities than in activities where they were able to work individually. Whilst the evidence acknowledges a level of disengagement which arose because of activity variation, the very fact there is activity

variation ensured capture of all learner styles, thus allowing all pupils to achieve a good level of topic understanding, as evidenced by the letter-writing task. This result supports literature reviewed from both Carroll and Alexander (2016) and Grigg (2010) that suggest that successful lesson introductions are those that provide pupils with the opportunity to engage with varied and well-resourced activities that encourage both group and individual work, thus appealing to differing learning styles.

It is possible to note from the observations recorded that the majority of pupils were seen to display engagement in cooperative learning; for example, discussions, questioning and peer-learning was observed. As found within the review of literature, cooperative and peer-learning can have positive effects on pupils' development of skills (Yusmanto *et al.*, 2017; Hattie, 2012). Consequently, the success found in encouraging pupils' engagement through activities that allowed them to work cooperatively, could in fact influence their academic attainment.

A significant finding surrounding the impact pupil behaviour can have on their engagement was also noted. During Lesson 1 it was seen that where pupils were given time to become disruptive during transitions between carousel activities, they disengaged; this behavioural effect on pupils' engagement was identified within the review of literature (Blatchford *et al.*, 2011; Roorda *et al.*, 2011). Differently, where a more deliberately fast-paced lesson was observed during Lesson Study 2, pupils displayed very little disruptive behaviour and thus higher levels of engagement. This demonstrates that when planning for the use of carousel activities within a lesson it is important to consider how behaviour and disruption will be managed.

Conclusion

This research set out to investigate how pupil engagement within KS2 could be improved through the use of interactive activities. A lesson study process was utilised to observe and refine the use of hook and carousel activities during the introduction of lessons in order to assess their effect on pupil engagement.

The process of using lesson study was appropriate for conducting this research, allowing myself and two colleagues to engage in professional discussions and collaborate in refining our teaching strategy in a supportive environment that will contribute to our professional development. As this lesson study was conducted within only three classes, of which only nine focus group pupils were observed, any observations and findings made may be specific to these individuals and cannot therefore be generalised (Bell, 2014).

The method of non-participant observation used was beneficial as it allowed for the interactions and behaviour of pupils to be observed. As the pupils were unknown to the observers, un-biased observations could be made, thus increasing the reliability of the research (Papatheodorou *et al.*, 2012). A weakness to our research lies within the way in which our observation schedule was organised. Upon reflection I believe more effective observation may have taken place if each observer observed only one child each; something I would change if I was to participate in lesson study in the future. This would eliminate the risk of not observing crucial interactions and behaviour, yielding more reliable and comprehensive observations.

Using focus group interviews allowed for pupil insights to be considered which proved valuable to the research (Stapanek, 2007). Pupils were able to express their opinions on which elements of the lesson they felt were successful and those that could be improved, allowing for each lesson to be refined. However, the validity of these interviews can be

questioned due to potential of bias response (Cohen *et al.*, 2011). In an attempt to ease pupil anxiety, it was decided that each researcher would interview the pupils from their own class. This meant that pupils were familiar with the interviewer and felt more comfortable to express themselves. However, this may have affected the honesty of the response with pupils saying what they may have believed to be the desirable answer, thus affecting the validity of the interview results.

This research found that through careful planning of activities that encourage enthusiasm, promote cooperative learning and appeal to differing learning styles, pupils can become successfully engaged in their learning. Furthermore, it was identified that behaviour can lead to disengagement, which can be heightened due to the complex organisation required within carousel activities. However, when teaching is refined, the research showed that this effect can be reduced and is something I will consider for my future behaviour management strategies.

Education in Wales is due to undergo huge curriculum changes where importance is placed upon providing children with rich opportunities and learning experiences that aim to develop independent, ambitious learners who embrace challenge and possess skills that are essential for their future lives (Donaldson, 2015). This new curriculum will see the continuation of the Foundation Phase philosophy develop throughout Key Stage 2, leading to the more child-led and cooperative learning experiences investigated within this study (Donaldson, 2015). Therefore, as part of my ongoing professional development I will continue to develop my planning of innovative activities that engage pupils through learning experiences in turn encouraging the development of essential skills.

Dudley (2011; 2015) identified that lesson study can form an essential part of teachers' continuous professional development. Therefore, with a commitment to continually

improve and innovate within my own teaching and as a means of sharing good practice with other professionals, this process is one that I will consider using again in my own classroom.

Recommendations

Due to the size and scope of this research it is unable to put forward recommendations that contribute to fundamental changes (Bell, 2014). Nevertheless, this study can be shared amongst professionals for continued progression. This will allow for further developments surrounding the use of hook and carousel activities within lessons as a means of engaging pupils with learning.

This research identified differences in the ways pupils preferred to work, and it would be beneficial for future studies to place focus on assessing how pupils' learning styles can affect their engagement and how lesson planning could be refined to address this. Additionally, it would be advantageous for future studies to also consider how the carousel approach to teaching could be improved through effective behaviour management.

With changes in the Welsh Curriculum imminent, it is recommended that further study into the use of interactive learning activities within the KS2 classroom be considered to ensure the continued effective engagement of its pupils.

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Appendices

Appendix 1 – Observation Schedule

Observational Notes

Observation:

Lesson Study:

Leuven Scale for Involvement			
Children	Level (Introductory activities)	Level (Main activity)	Additional Comments
Child 1	<u>Origami rabbit:</u>	<u>Letter:</u>	
	<u>'All about me':</u>		
	<u>Brain sorting:</u>		
Child 2			
	<u>Mind maps:</u>		
	<u>Scenarios:</u>		

Child 3	<u>Origami rabbit:</u>		
	<u>'All about me':</u>		
	<u>Brain sorting:</u>		
	<u>Mind maps:</u>		
	<u>Scenarios:</u>		
Whole class comments:			

Appendix 2 – Leuven Scale

Appendix 1

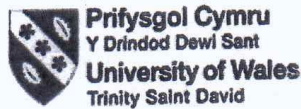
The Leuven Scale for Well-being

level	Well being	Signals
1	Extremely low	The child clearly shows signs of discomfort such as crying or screaming. They may look dejected, sad, frightened or angry. The child does not respond to the environment, avoids contact and is withdrawn. The child may behave aggressively, hurting him/herself or others.
2	Low	The posture, facial expression and actions indicate that the child does not feel at ease. However, the signals are less explicit than under level 1 or the sense of discomfort is not expressed the whole time.
3	Moderate	The child has a neutral posture. Facial expression and posture show little or no emotion. There are no signs indicating sadness or pleasure, comfort or discomfort.
4	High	The child shows obvious signs of satisfaction (as listed under level 5). However, these signals are not constantly present with the same intensity.
5	Extremely high	The child looks happy and cheerful, smiles, cries out with pleasure. They may be lively and full of energy. Actions can be spontaneous and expressive. The child may talk to him/herself, play with sounds, hum, sing. The child appears relaxed and does not show any signs of stress or tension. He /she is open and accessible to the environment. The child expresses self-confidence and self-assurance.

Appendix 2

The Leuven Scale for Involvement

level	Involvement	Signals
1	Extremely low	Activity is simple, repetitive and passive. The child seems absent and displays no energy. They may stare into space or look around to see what others are doing.
2	Low	Frequently interrupted activity. The child will be engaged in the activity for some of the time they are observed, but there will be moments of non-activity when they will stare into space, or be distracted by what is going on around.
3	Moderate	Mainly continuous activity. The child is busy with the activity but at a fairly routine level and there are few signs of real involvement. They make some progress with what they are doing but don't show much energy and concentration and can be easily distracted.
4	High	Continuous activity with intense moments. The child's activity has intense moments and at all times they seem involved. They are not easily distracted.
5	Extremely high	The child shows continuous and intense activity revealing the greatest involvement. They are concentrated, creative, energetic and persistent throughout nearly all the observed period.

Appendix 3 – Consent Form

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,

C. Morgan

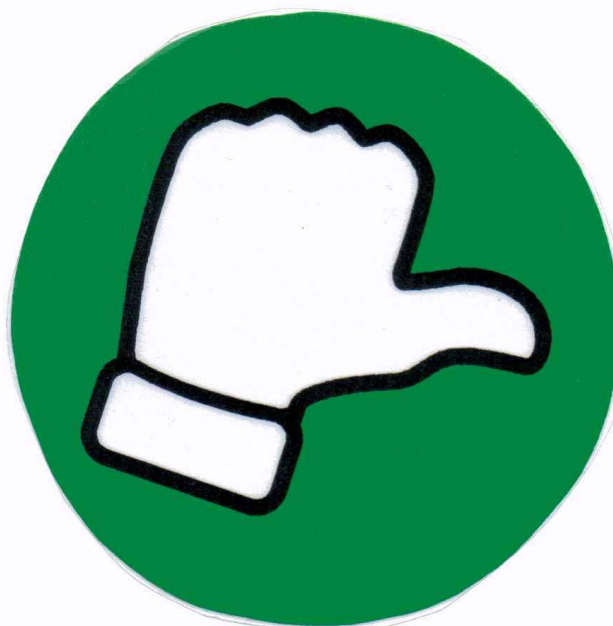
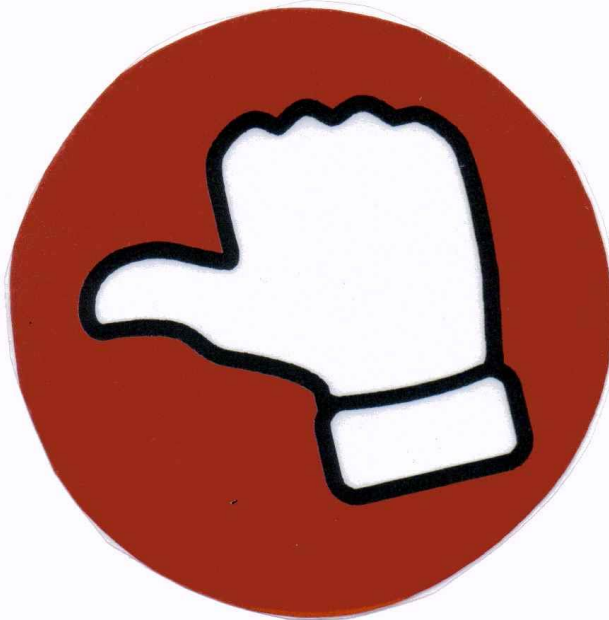
Catherine Morgan
Module lead – The Enquiring Teacher

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..... 9. MARCH 2018

Appendix 4 – Thumbs Resource



[illegible]

Appendix 6 – Lesson Plan

Canolfan Addysg Athrawon De-Orllewin Cymru  The South West Wales Centre of Teacher Education		1B
Session Plan – Key Stage 2		
Name of trainee: Freya Price		Session: 27.3.2018
Personal target(s) in relation to QTS:		
Year group: 6	No. of learners: 30	ALN: Z, R, D, J, J, E
Additional Adults:		
Learning objective(s): To write a letter to a future pupil		Success criteria: - Think of a time when you found something difficult to learn. - Explain to the future pupil how you overcame this difficulty and what this taught you about having a growth mindset. - Advise the future pupil on how they can develop a growth mindset. - Use the correct structure of a letter.
Links to previous learning:		
Curriculum coverage (range, skills): <u>Oracy</u> - communicate for a range of purposes - speak and listen individually, in pairs, in groups and as members of a class - use a variety of methods to present ideas, including ICT, dramatic approaches, discussion and debate - engage in activities that focus on words, their derivation, meanings, choice and impact - use appropriate vocabulary suitable for the situation or purpose <u>Writing</u> - write for a variety of purposes - write for a range of authentic audiences, real or imagine <u>Personal and Social Development</u> - form personal opinions and make informed decisions - use appropriate techniques for personal reflection - listen carefully, question and respond to other - express their views and ideas confidently through a range of appropriate methods - contribute to class discussions and take part in debates. - work cooperatively to solve problems - experience various learning styles and recognise the ways in which they learn best - reflect on progress, identify strengths and weaknesses and set targets for improvement		
Literacy (LNF) - express issues and ideas clearly, using specialist vocabulary and examples - listen carefully to presentations and show understanding of the speakers' conclusions or opinions - respond to others with questions and comments which focus on reasons, implications and next steps		Numeracy (LNF)

- contribute purposefully to group discussion to achieve agreed outcomes - follow up points in group discussions, showing agreement or disagreement giving reasons - adapt writing style to suit the reader and purpose - use features and layout which are constructed to present data and ideas clearly. - use varied and appropriate vocabulary, including subject-specific words and phrases.			
DCF	Thinking	ESDGC Begin to understand the concept of Growth Mindset	YCC
Key vocabulary (English/Welsh): Growth Mindset Fixed Mindset Strengths Weaknesses Resilience			
Time	Session activities, organization and management		Key questions
10 mins	Introduction Hook – Origami challenge - Pupils given 2 minutes to attempt to make the origami rabbit using instructions on the powerpoint. *Pupils not expected to complete* - Growth Mindset quiz (use thumb resources) - TTYP - When you couldn't complete the origami, how did you feel? / When you completed the origami, how did you feel? Explain what a fixed mindset looks/sounds like Video - https://www.youtube.com/watch?v=M1CHPnZfFmU TTYP – What is the difference between a fixed and growth mindset?		- When you couldn't complete the origami, how did you feel? - When you completed the origami, how did you feel? - What are your strengths? - How did you improve?
20 mins	Carousel activities – 5 mins each → 2+3 → 3 mins 1 - Change your mindset sorting activity. Match each statement with the correct side of the brain. <i>Extension → added scenarios for discussion</i> 2- All About Me (worksheet) Write or draw things you are good at or need improving. 3- Word definition activity. Write on to the bubble maps what each word means to you. 4- Scenario activity. Write on post-it notes how someone with a fixed/growth mindset would respond to each scenario.		

	Main activities Write a letter to a future pupil advising them how they can have a growth mindset. - Model answer given for guidance.	Assessment for Learning Opportunities Turn to your partner Pit stops Plenary
Yr 3 → Top tips	Plenary Growth mindset jar - Each child given three pieces of coloured paper - Must write down quotes/mantras or advice for having a growth mindset - Paper folded and placed in jar	Differentiation

Appendix 7 – Lesson Study 1 Observational Notes

JS notes:

Observational Notes

Observation: Year 5

Lesson Study: 1

Leuven Scale for Involvement		
Children	Level (Introductory activities)	Level (Main activity)
Child 1	<u>Origami rabbit: Level 5</u> • Appeared to be excited about the task. • Followed the instructions and remained engaged.	<u>Letter: Level 4</u> • The child wrote a satisfying amount. • The child did discuss with her peers.
	<u>'All about me': Level 4</u> • Child worked individually on task. • Did discuss work with others.	
	<u>Brain sorting: Level 3</u> • The group appeared to finish early and the child lost interest.	
	<u>Mind maps: Level 4</u> • The child had plenty to write for this activity. • Appeared to be mostly engaged.	
	<u>Scenarios: Level 4</u> • Positive engagement.	
		Additional Comments Appears to be an enthusiastic child, often on task although at times can be discussing with others.
Child 2	<u>Level (Introductory activities)</u>	<u>Level (Main activity)</u>
	<u>Origami rabbit: Level 4</u> • Initial engagement. • Followed instructions and completed. • Helped another child. • Showed others when she finished and perhaps put them off task.	<u>Letter: Level 3</u> • Produced a good amount of work. • Often chatting with others. • On times looking around the classroom.
	<u>'All about me': Level 3</u> • Appeared mostly engaged. • On times off task.	
	<u>Brain sorting: Level 2</u> • Did not work well in this exercise. • The group work must have put her off. • At one point had to be told by teacher to remain on task.	
	<u>Mind maps: Level 2</u> • Again struggled in the group environment.	
		Additional Comments Initial assessment of this child was that they were very able to do the activities. However it was evident that this child lost interest in certain activities and at times was disengaged.

→ prefers to work individually?

	<u>Scenarios:</u> Level 3 - Gave some good answers. - However again struggled in the group setting.	
	Level (Introductory activities)	Level (Main activity)
Child 3	<u>Origami rabbit:</u> Level 4 - Appeared to be totally engaged. - However then began to play with the paper at the end.	<u>Letter:</u> Level 4 <i>behaviour.</i> Additional Comments This child appeared engaged throughout most of the lesson. Was happy to get on with the task. Sometimes the child would discuss with others, although mostly it was discussion about the activity.
	<u>'All about me':</u> Level 4 - Performed well in written tasks. - Sometimes looked up around the table.	
	<u>Brain sorting:</u> Level 3 - Completed task early. - Could be argued high engagement. - However appeared to misbehave slightly with peers.	
	<u>Mind maps:</u> Level 5 Fully engaged with this task.	
	<u>Scenarios:</u> Level 4 - High level of engagement. - Did discuss and could go off topic.	
Whole class comments:		
- The whole class were mostly cooperative. - All children performed the origami task, some gave up quicker than others. - The paper became a distraction during the lesson. - All appeared to be engaged when watching the video. - There was some fussing during the moving around of activities.		

FP notes

Observational Notes

Observation: Year 5

Lesson Study: 1

Leuven Scale for Involvement		
Children	Level (Introductory activities)	Level (Main activity)
Child 1	<u>Origami rabbit: Level 5</u> - Listening very attentively to introduction. - Is eager to complete origami task and showing enthusiasm. - Responding well to questioning and engaged with quiz. - Eager to share opinions when questioned.	<u>Top tips: Level 4</u> - Is talking with peers – does appear to be a discussion about writing. - Writing shows that she has begun to develop an understanding of growth mindset. - Writing is of good quality.
	<u>'All about me': Level 4</u> - Taking a while to settle down to task. - Once on task – appears engaged with task. - Discussing work with peers.	
	<u>Brain sorting: Level 3</u> - Task completed as a group – finished very quickly. - Child has lost interest easily – talking with friends (not about lesson content).	
	<u>Mind maps: Level 4</u> - Engaged well with task. - Eager find meaning of words she is unsure of – discussing with others in the group and reading previous responses to find meaning.	
	<u>Scenarios: Level 4</u> - Fussy to begin with after moving on from previous task. - Once settled – engaging well with activity. Discussing and working well with peers.	
		<u>Additional Comments</u> - Show good enthusiasm and engagement towards tasks. - Engaging well in group and partner discussion – Using this to develop understanding. - Following introductory tasks, is eager to begin writing.
Child 2	<u>Level (Introductory activities)</u>	<u>Level (Main activity)</u>
	<u>Origami rabbit: Level 4</u> - Very eager to begin origami challenge.	<u>Top tips: Level 4</u> - Completed writing task to a good standard.

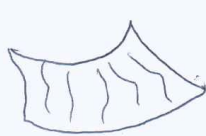
→ too much time given between activities? *

	- Engaged in origami, is talking to peers while completing it but remaining on task. - Teacher is talking to whole class – child is fussing with origami and distracting others around them. - Not engaged in TTYP – continuing to discuss and play with origami paper. - Some engagement with quiz.	- Appears to be engaged. - Easily distracted by others around.
	<u>'All about me': Level 4</u> - Appears engaged with task. - Talking with peers but working individually. - Completes task with ease but remains engaged.	
	<u>Brain sorting: Level 2</u> - Showing very little engagement. - Allowing others in the group to complete activity – happy to sit back and not engage. - Told by teacher to remain on task.	Additional Comments
	<u>Mind maps: Level 3</u> - Loses interest very quickly. - Completes some of the task individually but then disengages. - Appears to have good understanding of vocabulary.	- This child is clearly very able to complete the activities. - Appears to work better individually and without the support of others. - During group activities they disengage with activity and allow others to complete it.
	<u>Scenarios: Level 3</u> - Good responses to activity. - Disengaged very quickly once they believed that they had completed the task. - Not much discussion with group.	
Child 3	<u>Level (Introductory activities)</u> <u>Origami rabbit: Level 5</u> - Very attentive and engaged. - Eager to complete origami challenge. - Responds well to quiz and teacher questioning. - Appears enthusiastic to begin other activities.	<u>Level (Main activity)</u> <u>Top tips: Level 5</u> - Instantly engaged in activity. - Very eager to 'show off' new knowledge of growth mindset. - Good standard of writing. - Communicating with others while working – sharing ideas.
	<u>'All about me': Level 4</u> - Engaging in discussion with peers – comparing their strengths and	

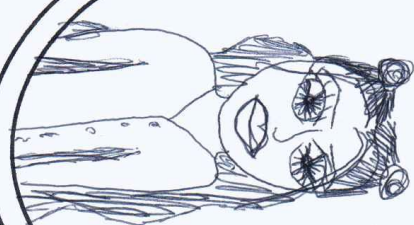
	weaknesses, and things they need to improve. - Sharing ideas of how to correct mistakes and improve themselves. <u>Brain sorting: Level 3/4</u> - Engaged well with activity - Discussing and sharing opinions with peers. - Completes task very quickly – quickly disengaged and talking to friends about topics unrelated to lesson. <u>Mind maps: Level 5</u> - Great engagement - Discussing responses with peers and sharing knowledge of vocabulary. - Is unsure of the meaning of some words but is searching for meaning from previous pupils' responses and is asking for assistance – clearly eager to develop knowledge. <u>Scenarios: Level 5</u> - Good group discussions – leading discussion and encouraging others. - Showing very good engagement.	Additional Comments - This child works well with others. - Engages very well when communicating and is eager to share and develop knowledge. - There was clear engagement throughout the lesson.
Whole class comments:		
- The class were quite fussy throughout the whole lesson – particularly when moving around the class to rotate activities. - It was clear that too much time was given for each activity which increased the fussiness of the class. - The whole class appeared to be engaged with origami challenge and were then enthusiastic for the rest of the lesson. - The origami paper did become a distraction for some during the lesson. - It is clear that most of the class work well with in groups and have a good skill of working and communicating as groups and with partners. However – some appear to prefer to work individually.		

	weaknesses, and things they need to improve. - Sharing ideas of how to correct mistakes and improve themselves. <u>Brain sorting: Level 3/4</u> - Engaged well with activity - Discussing and sharing opinions with peers. - Completes task very quickly – quickly disengaged and talking to friends about topics unrelated to lesson. <u>Mind maps: Level 5</u> - Great engagement - Discussing responses with peers and sharing knowledge of vocabulary. - Is unsure of the meaning of some words but is searching for meaning from previous pupils' responses and is asking for assistance – clearly eager to develop knowledge. <u>Scenarios: Level 5</u> - Good group discussions – leading discussion and encouraging others. - Showing very good engagement.	Additional Comments - This child works well with others. - Engages very well when communicating and is eager to share and develop knowledge. - There was clear engagement throughout the lesson.
Whole class comments: - The class were quite fussy throughout the whole lesson – particularly when moving around the class to rotate activities. - It was clear that too much time was given for each activity which increased the fussiness of the class. - The whole class appeared to be engaged with origami challenge and were then enthusiastic for the rest of the lesson. - The origami paper did become a distraction for some during the lesson. - It is clear that most of the class work well with in groups and have a good skill of working and communicating as groups and with partners. However – some appear to prefer to work individually.		

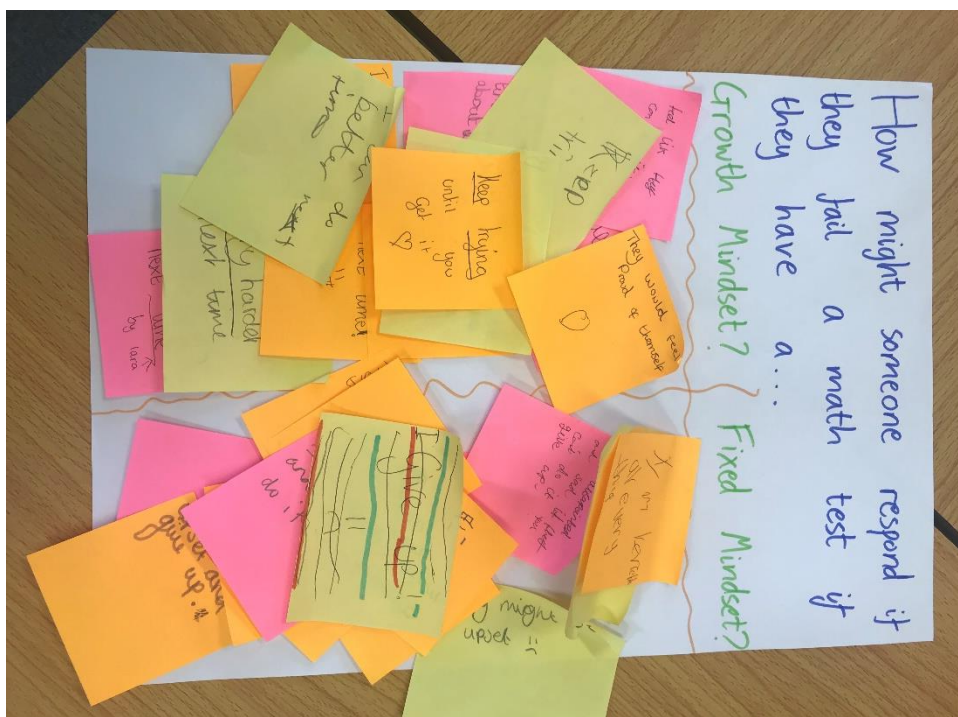
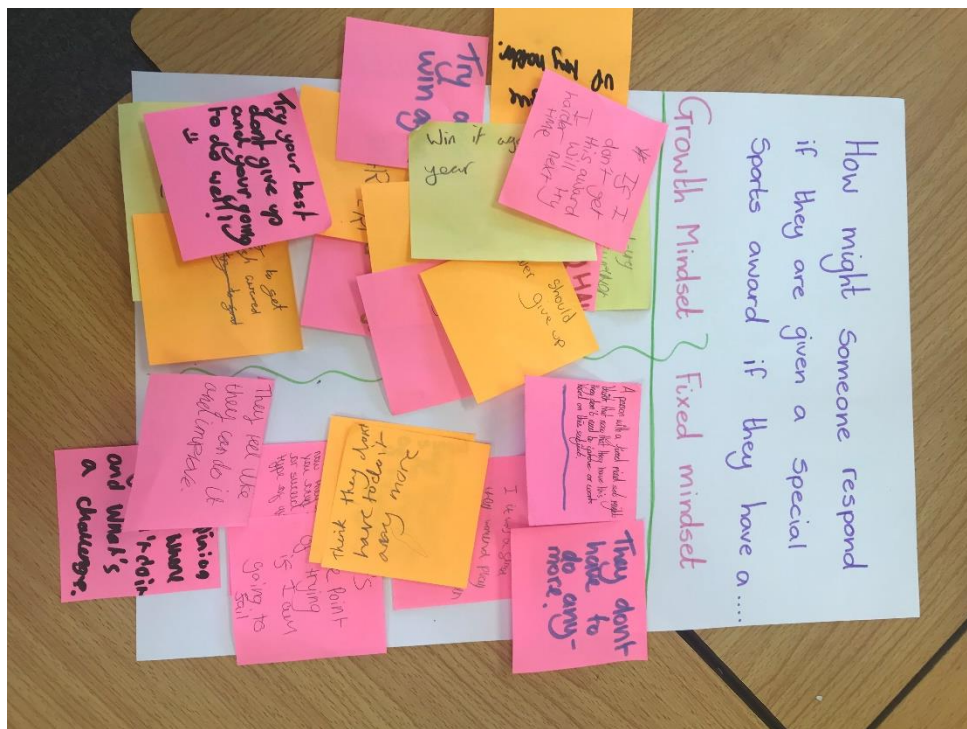
Appendix 8 – 'All About Me' Example

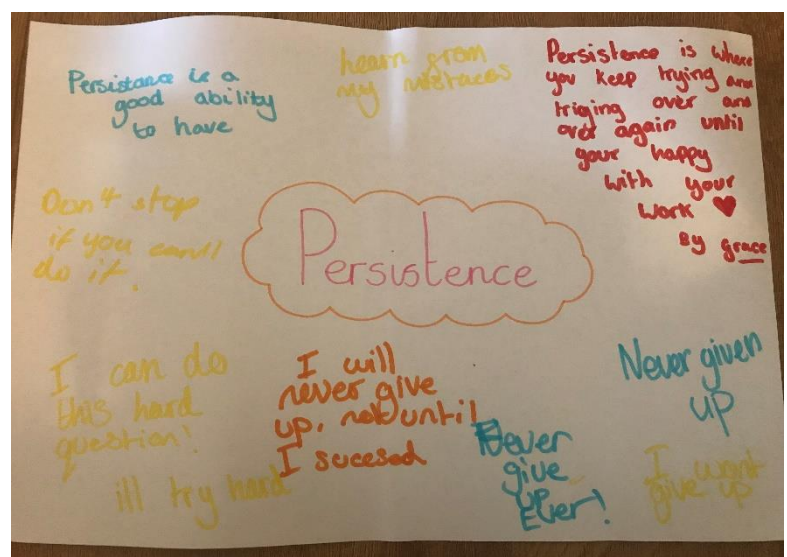
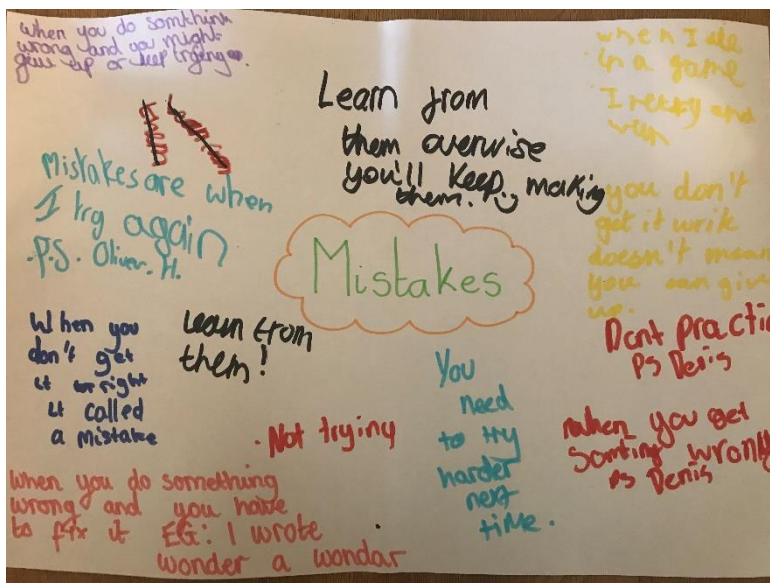
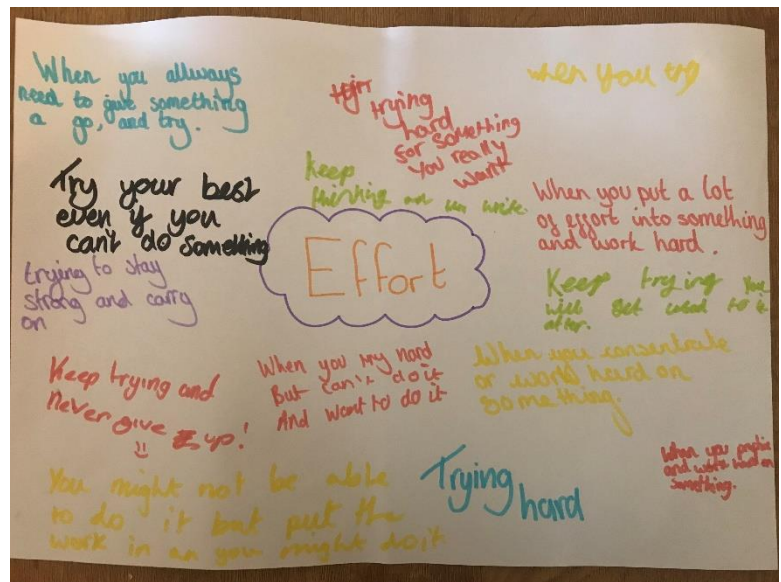
Something I really have to work at is... Handwriting 	Something I wish I could do better is... Maths
Something I'm not afraid of trying is... Risks	Something that comes really easy for me is... Art 

This is me!

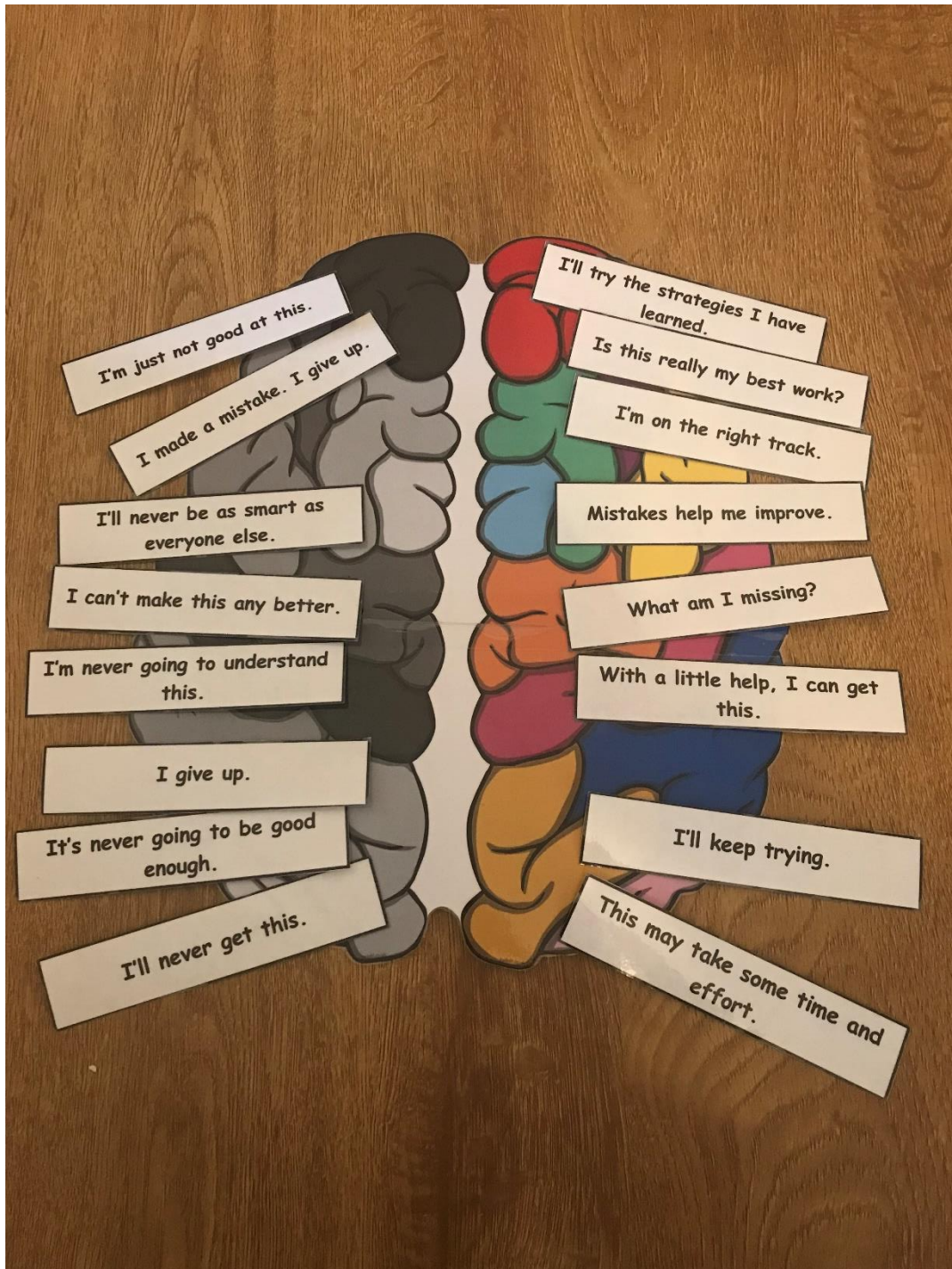


Appendix 9 – ‘Scenario’ Activity



Appendix 10 – 'Bubble Map' Activity

Appendix 11 – Brain Sorting Activity



Appendix 12 – Lesson Study 1 Interview Transcript

Lesson 1 - Focus Group Interview Transcript

Interviewer - What did you enjoy about the lesson?

Child 2 - That you were here

Child 1 - I liked sticking the thumbs in the air

Child 3 - I liked how we had to write down our feelings on every single table and answer the questions

Interviewer - So, you liked the introduction activities?

Child 3 – Yeah

Child 1 – I did too

Interviewer - What did you think about the activities at the beginning of the lesson?

Child 2 – It was really fun that you made us make a bunny

Child 1 – I enjoyed it even though it was complicated

Child 3 – It was fun because it was a challenge

Interviewer - What did you learn in the lesson?

Child 3 – We learnt that even if you can't do something just keep trying

Child 1 & 2 – I agree

Interviewer - Did you feel that the introductory activities improved your understanding of what you were learning?

All – yes

Interviewer - Did you prefer the activities where you worked as a group or individually?

All – the group activities.

Interviewer - Which of the activities where you most and least favourite and why?

Child 2 – I liked the scenario one because you had to give your personal opinion

Child 1 – I liked the origami rabbit

Child 3 – I liked the all about me activity because we got to show what we think. My least favourite activity was sorting the statements on the brain because it was done very quickly.

Child 1 – And it wasn't much of a challenge

Child 2 – wasn't much of a challenge but was still fun

Interviewer - Did you feel that the activities within the introduction of the lesson made you more confident to complete the main activity?

Child 1 – Because it gave us different ideas to write down and made us understand more

Child 3 – Yes, it made us understand more

Child 2 – I agree

Interviewer - This lesson is going to be taught to another class, what do you think we can do to make the lesson better?

Child 3 – On the brain activity you could add more questions or make it more challenging

Child 1 – ...yes because it was too easy

Child 2 – Maybe you could put coloured paper on the origami

Child 3 – You could add more questions on the all about me activity

Interviewer - Is there anything else you would like to say about the lesson?

Child 3 – It was fun

Child 1 – Yeah

Child 2 – I agree

Appendix 13 – Lesson Study 2 Observational Notes

CJ notes

Observational notes

Observation: Year 6

Lesson Study: 2

Leuven Scale for Involvement		
Children	Level (Introductory activities)	Level (Main activity)
Child 1	<u>Origami rabbit: Level 5</u> - Child is engaged in this activity and motivated to complete it. - Child was able to complete task within the time set. - Appears to be very engaged when teacher is speaking. Eager to offer responses to questions and good communication with partner.	<u>Letter: Level 5</u> - This child was very engaged within the activity and driven to complete the task. - The child used the supporting template letter to create her own and finished the activity fairly quickly. Completed the activity individually and without talking to others at her table – she seemed very determined to do well.
	<u>'All about me': Level 5</u> Child works individually on task and is very focused and engaged.	
	<u>Brain sorting: Level 4</u> - Completed task within a group – done very quickly. Stayed on task and focused within group.	
	<u>Mind maps: Level 4</u> Worked individually on task but helped other children in group when asked. - Read other answers before writing own, she was very focused.	
	<u>Scenarios: Level 4</u> Engaged in task straight away and read others' answers in order to gain more of an understanding.	
		<u>Additional Comments</u> - When asked to talk to their partners, this child engaged and discussed with theirs in order to come to an understanding of what is being asked of them. - Even though the child did not take charge within her group, she supported others when they asked for help. - This child was the first to complete the main activity and to a good standard.
Child 2	Level (Introductory activities)	Level (Main activity)
	<u>Origami rabbit: Level 4</u> - This child is engaged within the activity and motivated to complete it. - Child did not finish. Good engagement with quiz and listening and attentive to teacher. Responding well to questioning (TTYP)	<u>Letter: Level 4</u> Engages with task and takes time to read template letter in order to support her with the task. - Continues with activity quietly and focusses on task.
	<u>'All about me': Level 5</u> Child was engaged during activity and worked individually on task.	
	<u>Brain sorting: Level 4</u> Worked with group to complete activity. - Contributed within the group discussions	

	Was engaged and motivated to share her opinions.	Additional Comments
	<u>Mind maps: Level 4</u> - Child shows interest whilst completing the activity and discusses answers with partner. - Child read others' answers before writing her own in order to gain understanding.	- When asked to talk to their partners, this child engaged and discussed with theirs in order to come to an understanding of what is being asked of them. - Child mostly took lead within activity when working with their partner and engaged within discussion.
	<u>Scenarios: Level 4</u> - Child seemed motivated throughout the activity and remained on task. - Child read others' responses first, before writing her own.	
	Level (Introductory activities)	Level (Main activity)
Child 3	<u>Origami rabbit: Level 5</u> - Child is engaged and motivated to complete the activity. - Child did not complete activity. - Good participation in quiz and very willing to express opinions.	<u>Letter: Level 4</u> - Child talks with partner throughout activity but stays on task. - Child reads template letter with their partner for support, when finish they both discussed what they were going to write. - Child is engaged with activity.
	<u>'All about me': Level 4</u> - Child was engaged throughout this activity. - Child discussed activity with partner and seemed excited to complete it.	
	<u>Brain sorting: Level 5</u> - Child took lead within the activity and led the group discussions. - Group finished task fairly quickly.	Additional Comments
	<u>Mind maps: Level 3</u> - Child reads other responses to gain understanding. - Child discusses answers with partner before writing them down.	Although it seemed that the child was off task and talking to others, he was still able to engage and complete the activities.
	<u>Scenarios: Level 3</u> - Child seemed motivated throughout the activity and remained on task. - Child read others' responses first, before writing his own.	

JS notes.

Observational Notes

Observation: Year 6

Lesson Study: 2

Leuven Scale for Involvement		
Children	Level (Introductory activities)	Level (Main activity)
Child 1	<u>Origami rabbit: Level 5</u> - Completed the task. - Followed the instructions. - Sat and waited for the next instruction. - Participated well with quiz. - Good communication with partner and responds well to questioning.	<u>Letter: Level 5</u> - Produced a great deal of work. - Was not distracted by anyone. - Showed the teacher their work when finished. - So engaged with this activity.
	<u>'All about me': Level 5</u> - Got on with their work. - Did not discuss with others. - Appeared fully focused.	
	<u>Brain sorting: Level 4</u> - The child got on with her work. - With it being group work there was temptation to go off task but she was mostly focused.	
	<u>Mind maps: Level 5</u> - Wrote down several answers. - Again appeared to be fully on task.	
	<u>Scenarios: Level 5</u> - Got on with the task immediately. - Read other answers to gain an understanding.	
		<u>Additional Comments</u> - Pleasing to see how engaged this child was. - Throughout the whole lesson the child appeared engaged. - Evidently bright child. - Appears to be a pleasure to teach as this child follows instructions with out fuss.
Children	Level (Introductory activities)	Level (Main activity)
Child 2	<u>Origami rabbit: Level 4</u> - Appeared engaged during the task. - Showed her peers her work but remained on task.	<u>Letter: Level 4</u> - Appeared on task. - Completed the work to a good standard. - Did discuss with peers but mostly on task.
	<u>'All about me': Level 4</u> - Focused on task. - Tendency to discuss with her group.	

	Most of discussions were about the work.	
	<u>Brain sorting:</u> Level 4 - Completed the task. - Shared her ideas.	Additional Comments
	<u>Mind maps:</u> Level 4 - Child used other answers to complete task. - Spoke with group about the work.	- When doing work was mainly on task. - Often discussed but remained on task.
	<u>Scenarios:</u> Level 4 - Appeared motivated. - Discussed on this section, unsure if was about the topic.	
	Level (Introductory activities)	Level (Main activity)
Child 3	<u>Origami rabbit:</u> Level 4 - Did not complete the task. - Had a good attempt. - Engaged well with quiz. - Willing to offer opinions and personal experiences.	<u>Letter: Level 4</u> - Child completed their work. - Produced a lot of work. - Did talk to partner during the activity.
	<u>'All about me':</u> Level 4 - Wrote down some good answers. - Discussed with some of the peers on the table.	
	<u>Brain sorting:</u> Level 4 - Completed the activity quickly. - Did discuss with others on their table.	Additional Comments
	<u>Mind maps:</u> Level 3 - Off topic on times with peers. - Did complete the work.	- mostly engaged with the task. - Often talked to peers. - Produced good work. - Appeared engaged when teacher was talking.
	<u>Scenarios:</u> Level 3 - On times discussed with others. - Did appear engaged, but off task a lot.	

Whole class comments:

- The class were engaged throughout the lesson.
- They appeared interested by the activities.
- No negative incidents in the lesson.
- All listened to teacher and participated in the activities.

Appendix 14 – Lesson Study 2 Interview Transcript

Lesson 2 - Focus Group Interview Transcript

Interviewer - What did you enjoy about the lesson?

Child 1 – I really liked all of the activities where we went around the classroom and also making the origami bunnies

Child 2 – Making the bunnies but I didn't get very far.

Child 3 – I liked the quiz activity where we had to put our thumbs down or thumbs up so that you can express your opinion.

Interviewer - What did you think about the activities at the beginning of the lesson, so the activities where we rotated around, what did you think about those?

Child 1 – I think they were quite clever to get to know the things that we know better.

Child 3 – I liked them because they were all short and snappy and fun things to do.

Interviewer - What did you learn in the lesson?

Child 1 – I learnt about growth mindset and fixed mindset.

Child 2 – I learnt the same thing and how they affect different people.

Child 3 – I learnt that if you make a mistake it is not always bad, it is kind of good sometimes so that you learn more,

Interviewer - Did you feel the activities improved your understanding of what you were learning?

All – Yes.

Child 1 – I didn't really know anything about growth mindset.

Child 2 – Yes, I didn't know anything about it.

Interviewer - Did you prefer the activities where you worked in groups or the ones where you worked on your own?

Child 2 – I preferred the groups where we can interact with each other.

Child 1 – I preferred on my own because then I don't get distracted by others when doing my work.

Child 3 – I probably prefer on my own because then you can do it personally.

Interviewer - Rank the order of the activities, so which was your favourite to your least favourite and tell me why?

Child 1 – The favourite was the bunnies because it was fun to begin the lesson.

Child 2 – My favourite one was rotating around but favourite was the bunnies.

Interviewer - With the activities where we rotated around, which one of those was your favourite?

Child 2 – That brain one where we had to match.

Child 3 – My favourite was when you had to draw the pictures or write of what you're good at and what you need to be more confident with.

Interviewer - What was your least favourite?

Child 3 – My least favourite was the one where we had to match them up.

Interviewer - Why was that your least favourite?

Child 3 – Because we were able to do it really quick.

Child 1 – my least favourite was doing the creative things.

Interviewer - Did you feel the activities in the introduction of the lesson, so the ones we did at the beginning, made you more confident to complete the main activity? So, after doing those activities, did it make you want to complete the writing task more at the end?

Child 2 – Yes, because it made me know what I was going to write, because before then I was clueless.

Child 1 – They help us know what to write in the letter.

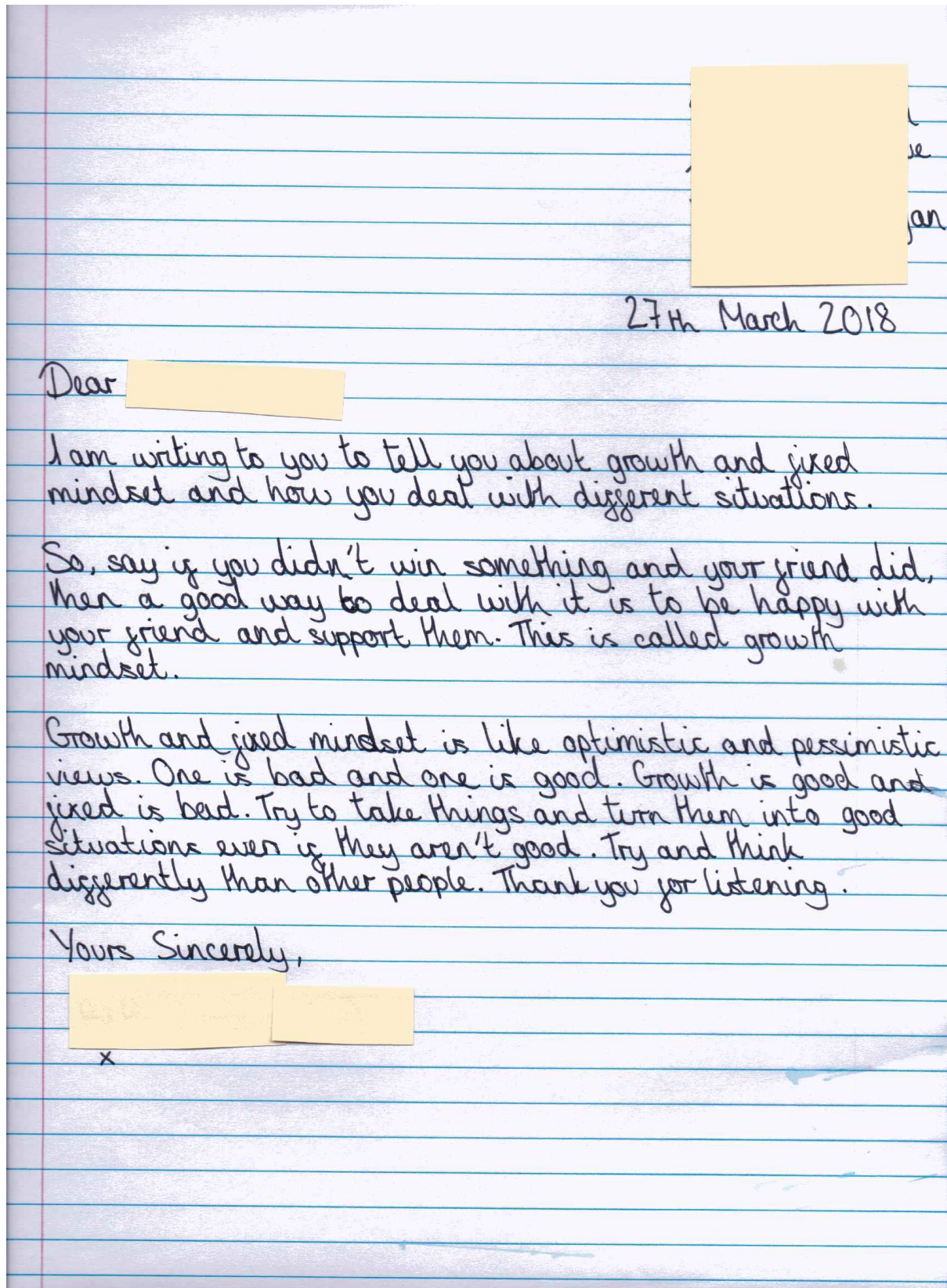
Child 3 – They changed my opinions on mistakes, before I thought mistakes were bad, but now I know if you do make a mistake to learn from it.

Interviewer – Da iawn. So the lesson is going to be taught to another class, what do you think we could do to make that lesson better?

Child 2 – maybe you could change the letter in to more of a fact file.

Interviewer – Great thinking. Is there anything else you would like to say about the lesson?

All – No.

Appendix 15 – Writing Activity Example

Appendix 16 – Lesson Study 3 Observational Notes

FP notes.

Observational Notes

Observation: Year 3

Lesson Study: 3

Leuven Scale for Involvement		
Children	Level (Introductory activities)	Level (Main activity)
Child 1	<u>Origami rabbit: Level 4</u> - Appears to be engage with activity. - Does engage with quiz/questions and is eager to respond to teacher and share ideas about growth mindset.	<u>Top Tips: Level 4</u> - Child is very engaged with this main activity immediately. Is eager to complete task correctly. - Is talking to peers sat on table. Unable to determine whether pupils are discussing their work. - Is using ideas developed from introductory activities to complete task.
	<u>'All about me': Level 5</u> - Appears to be very engaged. - Is very focussed on completing individual activity with little interaction with peers.	
	<u>Brain sorting: Level 5</u> - Initial sorting task completed with ease. - Engaging well with group, is encouraging others to discuss their decisions. - Responds well to extension activity, is articulate when sharing ideas and contributing to group discussion.	<u>Additional Comments</u> - Child sometimes appears to be distracted however quickly regains attention and shows engagement through their interactions with peers and activities. - Child engages well when talking to partner, contributes well to group discussion and uses own knowledge to help others and shares ideas. - Appears to have a very good understanding of what they are writing. Sharing ideas with peers.
	<u>Mind maps: Level 4</u> - Carefully considers response and what they are going to write – reading the responses of others before writing own. - Was very focussed on own work, sometimes engaged in discussion with others.	
	<u>Scenarios: Level 4</u> - Really concentrating and focussed on task. - Engaging in group discussion and helping others with their responses to the scenarios.	

cooperative learning

	Level (Introductory activities)	Level (Main activity)
Child 2	<u>Origami rabbit: Level 3/4</u> - Very engaged and eager to complete this activity. Appears to be very excited to be conducting creative activity. - Doesn't complete the origami, has not given up and wants to continue to create the origami. - Is distracted during quiz, fussing with origami paper and is continuing to attempt to complete challenge.	<u>Top Tips: Level 4</u> - Is using the template provided on the whiteboard and using ideas developed from introductory activities. - Appears to be initially very engaged in the task, however is talking to peers. - Although is talking with peers, remains on task. - Clearly has a good understanding of what they are writing. Sharing ideas of growth mindset with peers.
	<u>'All about me': Level 5</u> - Engaged with task immediately. - Working well individually and is focussed on completing activity.	
	<u>Brain sorting: Level 5</u> - Appears to be taking the lead during this group activity. Is helping others and sharing ideas. - Is open to listening to ideas of peers.	
	<u>Mind maps: Level 5</u> - Using the ideas of peers to develop own understanding by reading previous responses and sharing ideas within group. - Is helping others to develop their responses and understanding the task.	
	<u>Scenarios: Level 3</u> - Has become distracted by origami again (first activity following origami task). Is sitting back and letting others to complete the task. - Is prompted by teacher to engage with activity. - Questioning what peers within the group have written, and writes response accordingly.	<u>Additional Comments</u> - Engages well with peers and shares ideas when asked to talk to partner very well. - Although there are moments within the lesson where child is distracted by the origami, it appears that they have engaged well with most activities to achieve L.O.

behavioural effect.

	Level (Introductory activities)	Level (Main activity)
Child 3 <i>* Prefers to work individually?</i>	<u>Origami rabbit: Level 5</u> - Appears very engaged in activity and wants to complete origami. - Engages with quiz and is eager to share ideas with class and during TTYP.	<u>Top Tips: Level 5</u> - Engaging well with activity. Begins writing straight away and appears very focussed. - Working individually with no interaction with peers. Is not distracted by pupils talking around them. - Appears to be using knowledge gained from introductory activities to complete task.
	<u>'All about me': Level 4</u> - Working well individually. - Engaged with task, and eager to complete.	<u>Additional Comments</u> - It is clear child prefers to work individually. - Sometimes appears disengaged but it is clear they have begun to develop some understanding of growth mindset. - Sometimes willing to engage with others and share ideas with partner.
	<u>Brain sorting: Level 2</u> - Not contributing greatly to group activity, others in group leading completion of task. Child has read some statements on cards but appears disengaged. - Sorting task completed quickly, child has lost interest and is not contributing to the group discussion during extension activity.	
	<u>Mind maps: Level 4</u> - Working individually, very engaged in completing the activity. - Not engaging in discussion with peers.	
	<u>Scenarios: Level 3</u> - Appears disengaged. Happy for others in the group to take lead and complete task. - Does complete some responses for scenarios, but reads answers from peers to form own knowledge.	
<u>Whole class comments:</u> - On the whole, the class appeared very engaged throughout the session. - Origami activity at the beginning of the lesson appeared to excite all pupils, and they were eager to have a go and complete the challenge. - Pupils fussy between activities and teacher required to settle them down. - Pupils engaged in discussions as a group and in partners while completing activities. - Pupils using knowledge gained from activities to complete main activity. - All pupils able to complete main writing activity with little or no support.		

CJ notes.

Observational Notes

Observation: Year 3

Lesson Study: 3

Leuven Scale for Involvement		
Children	Level (Introductory activities)	Level (Main activity)
Child 1	<u>Origami rabbit: Level 4</u> - Child is engaged in this activity and was motivated to complete it at first. - Child gave up on completing the origami.	<u>Top Tips: Level 4</u> - This child was very engaged within the activity and driven to complete the task. - The child got on with the task straight away. - The child seemed very determined to do well.
	<u>'All about me': Level 5</u> Child works individually on task and is focused and engaged.	
	<u>Brain sorting: Level 5</u> - Completed task within a group – done very quickly. - Stayed on task and engaged with group discussion.	
	<u>Mind maps: Level 4</u> - Worked within a group on task. - Read other answers before writing own, he was focused and engaged in activity.	
	<u>Scenarios: Level 4</u> Engaged in task straight away and read others' answers in order to gain more of an understanding.	
Child 2	<u>Level (Introductory activities)</u>	<u>Level (Main activity)</u>
	<u>Origami rabbit: Level 5</u> - This child is engaged within the activity and motivated to complete it. - Child did not finish although did not give up.	<u>Top Tips: Level 4</u> - Engages with task and uses a template on the board to help her. - Child talks to her group but still remains on task.
	<u>'All about me': Level 5</u> Child was engaged during activity and worked individually on task.	
	<u>Brain sorting: Level 5</u> - Worked with group to complete activity. - Contributed within the group discussions - Took a lead role within group and supported others.	
	<u>Mind maps: Level 5</u> - Child read others' answers before writing her own in order to gain understanding. - Child then helps others to understand what they need to do then writes her own answers.	
		<u>Additional Comments</u> - The child engaged well when asked to talk to her partner, they discussed the topics asked of them to find an answer. - Not sure if child fully understood the term 'growth mind-set' due to the change in video to fit the suitability of

	Scenarios: Level 3 - Child seemed less engaged with this activity and allows other children to take a lead role. → prefers to work individually? - Child read others' responses first, before writing her own.	the age group. Although, the child was still able to complete the tasks correctly.
	Level (Introductory activities)	Level (Main activity)
Child 3	Origami rabbit: Level 4 Child is engaged and motivated to complete the activity.	Top Tips: Level 5 - Child engages with task and is very focused. - Child works individually and doesn't become distracted by other children.
	'All about me': Level 5 - Child was engaged throughout this activity. - Child remained very focused and worked individually.	
	Brain sorting: Level 3 - Child was engaged at first but the group finished the activity fairly quickly - When finished, the child lost interest and disengaged within the group discussion.	Additional Comments
	Mind maps: Level 4 - Child shows engagement and works individually during activity. - Child reads others' answers before writing her own.	- Child worked very well when completing task individually, but seems to lose interest when working within a group. - Engaged well when asked to talk to their partner, took on a lead role. - Not sure if child fully understood the term 'growth mind-set' due to the change in video to fit the suitability of the age group. Although, the child was still able to complete the tasks correctly.
	Scenarios: Level 3 - Child seemed less engaged with this activity and allows other children to take a lead role. → individual? - Child read others' responses first, before writing her own.	
Whole class comments:		
- Whilst doing the origami challenge, at first, all children were engaged and were driven to complete the challenge. Although, as the time was running out it seemed that many children gave up trying. Only one child was able to complete the task within the allotted time. - During the introduction of the lesson, children were very distracted and seemed to fuss a lot between activities. Most children showed engagement throughout the activities. - During the main activity, most children got on with the task individually but others worked within pairs/groups to discuss what they were going to write. - The lesson was timed quite well, the majority of the lesson consisted of the introductory activities leaving the children around 15 minutes to complete their top tips which worked very well. - It seemed that when observing the class, some children did not seem to fully understand the term 'growth mind-set' and thought it just meant to not give up. I believe this was due to the age of the children and also that the video we used to explain growth mind-set had to be changed so that the children would understand. Although, the children were still able to complete the activities correctly even though they had not learnt about 'growth mind-set' before.		

Whole class comments:

- Whilst doing the origami rabbit challenge, at first, **all children were engaged** and wanted to complete the challenge. After the first minute, some children gave up and they didn't believe they could complete the task within the time limit. Few children were able to complete the rabbit within the allotted time.
- During the introduction of the lesson the children completed the tasks and **moved around with minimal distractions or fuss**. They all seemed to **engage with the activities** and participate within group discussions.
- During the main activity, most children got on with the task individually but others worked within pairs to discuss what they were going to write.
- The lesson was timed very well. The introduction of the lesson, including the carousel of activities, took half an hour to complete whilst the main task was completed by the children within 15 minutes. This was due to the break times being changed.

Appendix 17 – Lesson Study 3 Interview Transcript

Lesson 3- Focus Group Interview Transcript

Interviewer – What did you enjoy about the lesson 1?

Child 1 – It was fun and fixed mindset is about the ... um I can't do it but then you can actually do it again.

Child 2 – My favourite part of the lesson was probably the sticky note activity where you had to like write something down and then stick it on the growth mind set and the fixed mind set thing.

Interviewer – What did you enjoy 'Child 3'?

Child 3 – The brain one.

Interviewer – Ok, what did you think about the activities at the beginning of the lesson?

Child 2 – They were difficult.

Interviewer – So what was the activity, do you remember? It was the bunny rabbit wasn't it.

Child 1 – It was difficult.

Interviewer – Do you all think that?

All – yes.

Child 2 – At first I found it difficult and then when I thought I could try folding it out the other way it was easy, when I figured out that.

Child 1 – I think it was just difficult, it was really hard.

Interviewer – What did you learn in the lesson?

Child 1 – A mind set is a thing you can do but a fixed mind set is a thing when you think you have done but you don't need to do that now.

Child 3 – So ummm, a fixed mind set is when you can give up and a growth mind set is when you keep trying at it.

Interviewer – Did you feel the activities helped improve your understanding of what you were learning?

All – yes.

Interviewer – Did you prefer the activities when you worked in groups or on your own?

Child 1 – Groups.

Child 2 – On your own.

Child 3 – Groups. I liked when you could draw so that's like half each, that was fun.

Interviewer – Ok, so half each, what was your favourite activity we did?

Child 2 – Definitely bunny, definitely the bunny.

Child 1 – I think the drawing one the same as 3.

Interviewer – So, what was your least favourite?

Child 1 - I think mine was the bunny rabbit.

Child 2 - The bunny rabbit.

Interviewer - That really was your favourite wasn't it?

Child 2 - Yes!

Interviewer - So what was your least?

Child 2 - I am trying to think of the activities now?

Interviewer - So we had the brain one...

Child 2 - *interrupts* Oh probably the brain one.

Interviewer - Why?

Child 2 - Because there was lots of them and it was quite hard. There were two ones we were really stuck on.

Interviewer - Ok so that was when you had to put them in growth mind set and fixed.

Child 2 - Ye.

Interviewer - Did you feel the activities in the introduction made you feel more confident to complete the main activities?

Child 2 - Kind of.

Interviewer - Do you think the bunny rabbit one made you more confident?

Child 1 and 3 - No

Child 2 - Kind of.

Interviewer - Ok, the lesson is going ... well it's not going to be taught to another class but how can we make it better? Because you guys are the last ones now to do this lesson.

Child 3 - Wow are we?

Interviewer - Yes, how can we make it better? What do you think?

Child 1 - I am not so sure about this.

Child 3 - If you talked a little bit more about it.

Interviewer - If I talked more about it?

Child 3 and 2 - Ye.

Child 2 - I think if you spent more time on the activities too.

Interviewer - More time on each activities, ye ok that's another good answer. Ok, umm, is there anything else you would like to say about the lesson?

Child 2 - It was really tremendous, and we learnt new things.

Child 3 - Yes, it was.

Interviewer - Ok thank you everyone.