

“Does the learner’s level of engagement vary between a focus task and enhanced provision within a Foundation Phase class?”

	Targed/Target	Yr hyn yr wyf wedi'i wneud yn yr aseiniad hwn. What I have done in this assignment.
Targed/Target 1	Increase the level to which you have critically analysed what you have read.	I have increased the level to which I have critically analysed my readings.
Targed/Target 2	To improve your cognitive skills, investigate in more detail counter arguments or contradictory viewpoints.	I have engaged in a wide variety of research informed literature to consider counter arguments or contradictory viewpoints.
Targed/Target 3	Ensure you paraphrase key concepts and try to avoid too many long sentences and direct quotes, use what you read to build an argument.	I have paraphrased key concepts and have used shorter sentences and direct quotes and used what I have read to build an argument.

The purpose of this lesson study is to collate evidence to enhance teaching and learning through the methodology of professional sharing of practice. With this view in mind, it seems appropriate to consider the views of Fernandez and Yoshida (2012), and Dudley (2015) who state that the lesson study cycle requires teachers to plan a lesson collaboratively and then analyse and discuss their observations post lesson. This will encourage critical reflection, which according to Godfrey et al, (2019) allows teachers to reflect on their own pedagogy. It is clear from these opinions that learning occurs during both planning, delivery and post lesson discussion, meaning participants can collate data and then analyse it at all stages of the lesson. At my placement school, the staff were not familiar with lesson study and were eager to evaluate this form of research.

In my class, learning occurred using a blend of approaches and my research partner and I discussed the notion of comparing focus tasks with enhanced provision with a view to establishing if one method of teaching yields better results than the other. This will enable me to answer the research question: "Does the learner's level of engagement vary between a focus task and enhanced provision within a Foundation Phase class?" The focus of this particular lesson study cycle was to research engagement levels of pupils aged 5 – 7 during a mathematics lesson. The data collected would compare their engagement levels during the focus task and enhanced provision of the lesson, which offered opportunities for experiential learning and play. The effectiveness of the different methods of learning afforded to children of this age group was of great interest to me, which led me to consult with a range of literature in order to support my research.

The Foundation Phase Framework (Revised 2015) not only takes inspiration from international curricula, but has also developed from a theoretical standpoint. Its conception has drawn influences from both contemporary and traditional theorists. The social constructivist theory of Vygotsky suggests the significance of experiential learning, and how cultural and social relationships are essential to a child's development (Gray and MacBlain, 2016). This development is further enhanced through an environment that promotes collaboration and sharing ideas during problem solving. My teaching experience through the practice has also suggested that the use of 'focus tasks' is vital, with specific teaching and learning activities provided by a qualified teacher. This is defined by Vygotsky as the 'Zone of Proximal Development (ZPD); the zone of potential growth just beyond, but within reach of a child's present capabilities (Andrews, 2012). In order for this to occur, it is clear that careful planning is necessary, along with observing a child's level of development. During early schooling years, Vygotsky (1978) states that children do not develop solitarily, rather they develop through interaction by means of playing, speaking and imitating. This concept, he defines as 'the more knowledgeable other' (MKO), when a child's play is extended for both

themselves and others through the addition of extra resources, discussing potential outcomes, supporting each other and acting out imaginary scenarios between themselves.

Piaget's (1952) constructivist theory also shares this idea by suggesting that children actively participate, building their own learning. A view supported by Crowley (2017) who also believes that they should be given environments that nurture this participation. In addition to this participation, Piaget, also highlights his belief that natural discovery and play are both vital in facilitating development, which gives way to a higher platform of learning, where more complicated systems and rules can be applied (Whitebread, 2012). This concept is demonstrated during the Foundation Phase (Revised 2015), where an emphasis is placed on continuous and enhanced provision, allowing for activities that are open-ended and with longer periods of experiential learning and uninterrupted play.

The cognitive and mental representation developed as a child experiences new concepts is defined by the term 'schema' or 'systematic play' by Piaget and also Montessori, Steiner and Froebel (Athey, 2007). All of these theorists believe that repeatable actions give way to logical systematic classifications and categories. Furthermore, Bruce (2011) describes how schemas facilitate an alternate perspective for teachers to meet the individual learning needs of a child. This idea that play forms an integral part of learning during early years, is demonstrated through all four UK curricula (Soler and Miller, 2003; Martlew, Stephen and Ellis, 2011; Wainwright et al., 2019; Walsh et al., 2010). In addition, it worth noting that policy, rhetoric and pedagogy do not occur in isolation in Wales; there exists a continual evolution of drawing influences from other international perspectives.

With this view in mind, I have decided to focus on two specific approaches gleaned from Italy and New Zealand. The Italian approach, devised by Reggio Emilia, is internationally acknowledged. It's respected ethos and pedagogy are centred on child-adult engagement along with the curriculum provision and its focus on creative arts (Wood, 2013). Children are empowered in a creative manner; learning is actively encouraged and is offered through creative arts as well as through play. The philosophy of the curriculum is centred on the child, and assessment and evaluation are based on their needs. An inquisition into form and perspective is nurtured through the provision of a spacious environment – with natural and recycled resources easily accessible (Thornton and Brunton, 2007). Relationships form the basis for Italian education. While it can be said that children build their own meaning and a positive self-concept, this development is supported when relationships that are warm and reciprocal surround the child. A teacher's focus is on a child's expression, their theories and how they develop meaning. This holistic and thematic approach, shares elements found in the Welsh curriculum, seeing children as the basis for the curriculum and a focus on the

needs of the individual child (Wainwright et al., 2019). Furthermore, the influence of the international curricula can be seen through the increased emphasis on emotional wellbeing and cultural identity (Soler and Miller, 2003). In addition, the provision of an enabling environment, easy access to resources, and the endorsement of purposeful play as a tool for learning, can assume the lead in a child's own learning, echoing the approach suggested by Reggio. The collaborative partnership between children and adults, focused on by the UK Curricula, and the concept of experiential learning as opposed to imparting knowledge, can also be seen as a similarity (Soler and Miller, 2003). In contrast, Wood (2013) suggests that Reggio's approach is based on the ideas and principles that are bound by the families and communities involved while Thomas and Lewis (2016) suggest that while UK teachers may want to advocate such a philosophy, their facilitation and attitudes towards play often hold more control and dominance than the Reggio approach.

New Zealand's perspective is linked through the conceptualisation of the 'woven mat' (whāriki), the notion that relationships, goals, learning outcomes and strands are all intrinsically connected (Wood, 2013). As with the Reggio approach, a significant emphasis is placed on developing positive relationships with parents and the community (Lee et al., 2013). Teachers in New Zealand working with children within the Early Years, need to have a comprehensive knowledge and understanding of play and how it can be provided (Thomas and Lewis, 2016). The curriculum is planned with a focus on the child, and learning is based on their interests. As such, knowledge, understanding and skills can be embedded and reflect their holistic development (Andrews, 2012).

Both international perspectives share an open curricular approach, which places emphasis on active participatory learning, reasoning, interaction, reflection and being responsible for self-learning (Thomas and Lewis, 2016; Anning and Edwards, 2006). Each perspective views children as active learners who participate in their own knowledge building and socialisation (Rinaldi, 1998). Malaguzzi (1993, p.10) describes these children as "rich in potential, strong, powerful and competent". The importance of teachers working in partnership with the children, setting up situations and creating choices for them to facilitate their learning is suggested to be a key factor by Malaguzzi (1993) and Maynard, Waters and Clement (2011).

The curriculum followed by the Foundation Phase Framework (Revised 2015) has personal and social development, wellbeing and cultural diversity at its core, and as such, reflects the aforementioned approaches. Essentially, the Foundation Phase represents a curriculum that encourages children to be involved in planning and reviewing their work. Children are offered a wide range of experiences which give way to a long-term positive effect on their intellectual

and social development (Maynard, 2007). It is accepted that children require support and guidance from adults when developing their skills. Said adults can promote progress by facilitating next steps and ensuring that children are presented with appropriate challenges to move forward in their learning, as explained in the notion of the 'Zone of Proximal Development' (Vygotsky, 1978; Stodden et al., 2008; Moore, 2012). Having considered this literature there are potential merits to both methods of learning and as such I feel that our research question is viable and worthy of lesson study research.

In agreement with Dudley's (2015) lesson study research, three pupils were selected from two classes for the study, as a sample to represent the different ability learners. The first class were aged 5-6 years and the second 6-7 years. The methods of data collections used in this lesson study are: observation (non-participant), focus group and reflection. A research observational schedule was used (Appendix 7 and 14), which included elements of the Leuven Scale (Laeyens and Declercq, 2018), indicating the pupils' level of engagement during focus tasks and enhanced provision activities. Engagement indicators in relation to listening skills, concentration, interaction, level of involvement and level of interest were then recorded by the observing researcher on the said schedules, with accompanying notes providing further details (Appendix 8 – 10 and 15 -17). Notes were taken at 5-minute intervals during the 45-minute lessons. Upon completion, we would discuss the data and verify the findings (Dudley, 2015). The reflections were captured using Gibbs (1998) reflective model (Appendix 11 and 18). This model includes reflections on evaluation, conclusions, descriptions, emotions and action plans. One of the fundamental advantages of Gibbs' proposed approach is the focus allocated to a systematic evaluation of each phase of the learning experience. The disadvantage of this model however, is that it is often descriptive, so may not provide sufficient analysis to fully understand the effects of certain courses of action, or the thought processes on which they are based.

Observation research affords the researcher an opportunity to observe a person's actions and behaviour, and is considered a well-established form of research that is commonly used is classroom research (Angrosino, 2012; Punch and Oancea, 2014). The potential strengths of observation which we considered as a means of data collection, included Moule and Goodman's (2009) suggestion that observation includes events that occur in real time which take place naturally. We decided to collect data directly from observed situations as we concur with Cohen, Manion and Morrison's (2018) view that valid and authentic data can be gathered using this approach. Weaknesses, however include the time required to carry out and the intrusive nature of an observation (Moule and Goodman, 2009). We also took into consideration the potential observer effect as the presence of an observer may cause participants to alter their behaviour (Roethlisberger and Dickson, 1939). Also, that research

integrity could be affected through observer bias (Cohen, Manion and Morrison, 2018). However, the views of Menter et al (2011) that the limitations of classroom observation can be controlled through the skill and experience of the researcher and sound planning also supported our decision for this method of data collection.

We chose to employ a non-participant observation approach. Gold (1958, cited in Walliman, 2016) describes this as the researcher assuming a position of detachment with the aim of not being observed. Consideration was also paid to Check and Schutt's (2012, p. 194) opinion of non-participant observation being "overt observation", and their suggestion that whilst the intention is to be overt, the presence of a researcher may itself, affect the situation and dynamics causing the behaviour of those people being observed to change if they are aware they are potentially being observed.

We undertook a focus group interview, which can be considered a less structured interview, though it is more than just a means of collecting data. According to Krueger and Casey (2000), focus group is a group discussion for research purposes, and is guided and recorded by a researcher and employed when a researcher aims to interpret those factors that may impact on student's behaviour. Morgan (1997) describes them as a means of data collection via group interaction based on a subject set by the researcher which allows for a qualitative research. We noted that extensive planning would be required when utilising focus groups. According to Gibson (2007), goals need to be clearly understood, and questions well designed. We also considered that participants may become fatigued during longer discussions which is typically caused by the shorter attention span of children (Nyumba et al., 2018). They also recognised the importance that all participants would need to fully engage in the group discussion, in order to generate viable data and noted Krueger's (1994) view that, this can be achieved more easily when all participants possess similar personal characteristics such as age, gender, ethnicity and class background. We also reflected Morgan et al.'s (2002) view, that participants who are familiar with each other may lose concentration or feel awkward discussing issues of a sensitive nature and the similar views of Krueger and Casey (2009) who state that better results can be attained when participants are unfamiliar. Our reflections highlighted that, whilst there are challenges involved in obtaining information from children, they can also provide important information and deserve to be heard (Gibson, 2012).

The interviews were to be held following the observed lesson to preserve the reliability of the pupils' thoughts and memories (Cohen, Manion and Morrison, 2018), in a peaceful and neutral setting, familiar to them (Morrison, 2013). We chose to conduct semi-structured interviews, due to the increased interaction and personalised responses generated against

those of stricter structured interview (McDonough and McDonough, 1997). A semi-structured interview format would also allow the researcher to “elicit additional data if initial answers are vague, incomplete, off-topic, or not specific enough” (Mackey and Gass, 2016, p. 225). However, it was noted that a disadvantage of the semi-structured format could be that direct interaction may give way to bias on the part of the researcher (Cohen, Manion and Morrison, 2018).

Ethical issues can arise from conducting classroom research and as such, BERA (2018) guidelines were considered and ethical approval was sought and obtained from the ‘Yr Athrofa’ Ethics Committee. Anticipated risks to participants, researchers and the University were detailed in the application form. All participants were made fully aware of the degree of anonymity and confidentiality provided by the researcher. Parents/guardians were provided with letters outlining details of the research project and its purpose with an explanation regarding voluntary participation and withdrawal, and consent forms were obtained prior to commencement of the study. Participants were reminded of their right to withdraw from the research at any time. Data collection, storage and destruction adhered to the University’s Research Data Management Policy. Verbal assent was also obtained from the pupils prior to the interview with convenient options to withdraw during the interview.

During the first lesson Child A displayed high levels of motivation from the outset, and displayed a clear understanding of the subject and the learning objective of the lesson (Appendix 8). He was keen to complete the worksheet stating that: “I like doing work, I know what to do”. He finished the first task and asked the teacher for more work which suggested a high level of engagement. Child B also displayed good levels of motivation and concentration during the focus task whilst interacting with her teacher/peers (Appendix 8). Her motivation was also apparent as she requested additional worksheets. Child C needed prompting during the focus task and enjoyed working independently, cutting out coins, clearly enjoying the creative and practical element of the task. He chatted to himself, narrating what he was doing. His concentration levels reduced after a period and then expressed a desire to enter the enhanced provision area.

The children’s attitudes when taking part in the enhanced provision activities (Appendix 9) were observed and their engagement levels recorded (Appendix 7). One of the activities was a ‘shop’ activity which aimed to provide the opportunity to exercise the mathematical skills gained during the focus task aligning with the views of Golinkoff, Hirsh-Pasek and Singer (2006), Smilansky and Shefatya (1990) and Lieberman et al. (2015), who comment upon the connections that exist between the complexity of pretend play, mathematical thinking and problem solving. Each of the children focused primarily on the ‘shop’ activity and the

'playdough' activity though there were options to be involved in art, IT and literacy (Appendix 6) which they were not drawn to.

Child A was keen to participate in the 'shop' activity, wanting to adopt the shopkeeper role and use money, but left when this was not possible. He returned to the 'shop' several times but expressed frustration when Child B would not allow him to be shopkeeper and then moved on to the 'playdough' area. Whilst in the 'playdough' area he worked collaboratively with Child B, and observations recorded supported Helme and Clarke (2001) who identify a variety of indicators of cognitive engagement during collaborative tasks. These include questioning, making evaluative comments, exchanging ideas, giving directions and making facial expressions/gestures. Child A clearly worked collaboratively with Child B in the 'playdough' area and it was evident that both pupils were engaged in active learning in a team setting, gaining a variety of benefits. Observations which align with the views of Grabinger and Dunlap (2000), that such activities promote stronger communication skills, greater levels of learning and, according to Bloom's taxonomy, positive attitudes, teamwork, with increased motivation and reduced pressure to perform.

Child B enjoyed the imaginative play in the 'shop' role play area, but would not share the role of shopkeeper (Appendix 9). She was very talkative in the 'shop' area and enjoyed the social aspect of the task (Truty, 2004). As stated, she worked well with Child A in the 'playdough' area and asked/answered questions collaboratively. When leaving the focus task, Child C did not engage fully with any of the enhanced provision activities offered, and wandered from task to task displaying low level interest and engagement.

At interview (Appendix 10), Child A expressed great enthusiasm when discussing the focus task and gave a clear description of its aim and the work which he had completed, which suggested a high engagement. He expressed reduced enthusiasm regarding the enhanced provision activities and had not found them stimulating. Child B expressed her enthusiasm regarding both the focus task and enhanced provision activities however expressed a preference for the enhanced provision task. Child C expressed a preference for the focus task however, stating that he had forgotten what he had done during the focus task which suggested that his engagement was limited. Both expressed an interest in using IT as an aid to learning. All three pupils described enhanced provision as 'play' which aligns itself with Foundation Phase (Revised, 2015) pedagogy. The responses gathered from the children suggested that higher and middle ability pupils possessed a clear understanding of the focus task and were engaged in their work. They had enjoyed enhanced provision to a degree, saw it as 'play', but preferred the structure of the focus task. The lower ability child required prompting to keep engaged in the focus task but enjoyed the freedom afforded during

enhanced provision, despite not settling at any of the activity areas and showing little engagement.

Following the lesson, my research partner and I discussed the data gathered from the observation, and decided to change the enhanced provision to include a Lego activity (Appendix 13). The following day, the lesson was taught to a different class and we then engaged in joint reflection supported by the views of McIntyre (1993) who believes that the re-teaching of the lesson gives the opportunity to act upon reflections.

During the second lesson, Child X, displayed high levels of motivation from the outset and, as with Child A, requested more challenging work and announced to the group that he was “very clever” (Appendix 15). He also displayed a competitive attitude. Child X participated in the ‘shop’ activity briefly, then went to play in the ‘Lego’ area, disregarding the other choices available to him. Like Child A, B and X, Child Y remained highly engaged during the focus task and appeared eager to improve her skills which, aligns with Dweck’s (2012) theory of growth mindset. Elliot and Dweck (1988) note that cognitive and behavioural outcomes arise from undertaking goals, which assists in understanding behaviour. She was keen to get the answers right and was happy to help Child Z. She displayed enthusiasm when completing the focus task, and displayed good levels of motivation in the enhanced provision areas, taking advantage of the choices available to her by rotating the activity areas (Appendix 16).

Child Z appeared easily distracted during the focus task and seemed prone to distracting others (Appendix 15). She did not display any concern regarding completing her work correctly but enjoyed the practical aspect of the task which required little cognitive thinking. This suggested a desire for more practical and creative work which supports Beghetto’s (2016) views that learning and creativity share a mutually supportive relationship with each other. However, this also supported Dweck’s (2012) view that a fixed mindset can give way to a person avoiding challenge. Child Z clearly struggled to focus on this task and highlighted Helme and Clarke’s (2001) view that engagement involves the processes of sustained attention and mental effort. A view also supported by Baars (1997), who believes that it is important to pay attention when trying to understand something unfamiliar or complex, problem solving, or learning a different way of doing something.

Child Z announced that she wanted to “play” in the ‘shop’ area (Appendix 15). It was evident from her enthusiasm that this activity could potentially provide opportunities for learning. Encouraging Child Z therefore to play using coins to develop her mathematical thinking could therefore be considered. Her behaviour improved following completion of the focus task which aligns with Edwards’ (1993) view that a bi-product of offering pupils choices is a decline in behavioural issues as, without said choices, pupils will be more inclined to rebel.

Child X participated in the 'shop' activity briefly (Appendix 16), counting coins and then went to play in the 'Lego' area, disregarding the other choices. However, the lack of a set goal failed to incentivise him as the activity did not seem to provide sufficient meaning or outcome (Maehr and Zusho, 2009; Kaplan and Maehr, 2007). The level of choice available to him did not engage his interest and engender enthusiasm for his learning.

Child Y worked contently alone in the 'shop' area, playing with toy coins and playdough (Appendix 16). She had previously displayed enthusiasm when completing the focus task and her attitude supported Thompson and Beymer's (2015) view, that increased motivation in pupils may be gleaned through building an initial interest in a topic before choices are offered. She displayed good levels of motivation and took advantage of the choices available to her by rotating the activity areas. Evidence gathered during the second lesson suggests that the higher and middle ability pupils preferred the focus task. Again, the lower ability child required prompting to maintain engagement in the focus task and enjoyed the freedom and opportunity for creativity afforded during enhanced provision.

During the interview (Appendix 17), Child X expressed his enthusiasm when discussing the focus task and gave a clear description of its aim and of the work he had completed, which indicated a high level of engagement. He displayed reduced enthusiasm regarding the enhanced provision activities which suggested a lower level of engagement. Child Y expressed her enthusiasm regarding both the focus task and enhanced provision activities. Child Z expressed no enthusiasm towards the focus task and stated that she learned "nothing" (Appendix 17) and preferred "play". The evidence of the children suggests that the higher and middle ability pupils possessed a clear understanding of the focus task and were engaged in their work. They enjoyed enhanced provision to a degree but considered it less stimulating. The lower ability child required prompting to engage in the focus task but enjoyed the freedom afforded during enhanced provision. The overall results therefore appear to mirror those from lesson study one. Upon reflection I would create a focus task which includes more practical learning activities to engage all learning abilities.

Across all mixed and higher ability pupils, motivation for the focus task was evident from the outset. This clearly had a positive impact on their engagement and motivation. A point highlighted by May (2013), Korb (2012), McLean (2003) and Martin (2008) who state that motivation is an individual's determination and drive that initiates behaviour towards a desired goal... or incentive a person aims to achieve. The higher and middle ability pupils' high levels of engagement during the focus tasks was evident. Cowan (2010) holds the view that engagement in an activity is driven by a person wanting to engage, rather than feeling obliged to do so and this was evident for both the higher and middle ability pupils. Both these

ability levels clearly wanted to learn, which supported Dweck's (2012) theory of growth mindset.

Both Child A and B enjoyed the imaginative play activities which captured their interest supporting Duncan and Lockwood's (2008) view, that imaginative play is essential for developing cognitive competence and that of Ryan and Deci (2000) who state that play and enjoyable active learning are commonly engaging because they are intrinsically motivated. However, Bennett, Wood and Rogers (1997) highlight the view that while employing play may hold weight ideologically, there is a question mark as to whether it offers a coherent framework for education practice.

A wide range of choices were available in the enhanced provision areas. Being presented with so much choice could have impacted on children's engagement and behaviour, and therefore the relevance and impact of a task should be considered before offering choices (Thompson and Beymer, 2015). By offering a limited number of choices to younger children, it will be easier for them to select a choice and produce a higher standard of work. A view supported by Morrison (2016) and Thompson and Beymer (2015) who consider offering a limited number of choices to children makes it easier for them to produce a higher standard of work. A view further supported by Iyengar and Lepper (1999), who demonstrate that in certain contexts, choice may not be beneficial.

One of the limitations of this lesson study is the size of the sample. It is possible that an increased number of lessons included in the study may have given way to a more detailed observation. Rasmussen (2016) advocates an action research cycle consisting of multiple research lessons. Dudley (2015) advocates studying three lessons as part of the study and using a group of three teachers. Another consideration could be a change in the number of observers as an increase may pose more of a distraction to children (Cohen, Manion and Morrison, 2018), particularly those with additional learning needs. It could also be argued that the inclusion of a participant observer could have offered more insight to the children's level of engagement as Rasmussen (2016) argues that a combination of both participant and non-participant observers is required. It should also be considered that, whilst lesson study holds validity as a tool for all teachers (Dudley, 2013), a teacher with limited experience may have overlooked or misinterpreted children's behaviour. The inexperience of the researchers may have impacted upon the analysis of the observation. Conversely however, it could be argued that limited experience may give way to a more open-minded approach to observation. As it could be argued that teachers with more experience may have adapted their observation to the criteria considered essential for good teaching (Dudley, 2013), and therefore may be more inclined to overlook issues they may deem not relevant.

The findings of this lesson study support Cowan's (2010) assertion that engagement in an activity is driven by a person wanting to engage, rather than feeling obliged to and that learning and creativity can share a mutually supportive relationship with each other (Beghetto, 2016). I believe that children need to be challenged in different ways. Focus tasks enable children to develop critical thinking skills whilst enhanced provision affords the opportunity to develop social and creativity skills. Therefore, a careful balance must be maintained, and enhanced provision tasks must be planned carefully to ensure they offer children opportunities to apply the skills gained in the focus task, in a fun and creative way. Children should be given the opportunity to develop mathematical concepts and language through the provision of a mathematically rich environment. They should be allowed to develop their skills in mathematics in a variety of relevant contexts, and be provided with opportunities to communicate and extend their mathematical understanding, through a mix of audiences and purposes. They should be given the chance to hone their mathematical skills across all aspects of provision in all learning areas, utilising a variety of new and current technologies. In addition, they should be able to recognise and utilise mathematics during structured activities and enhanced provision activities, showing understanding and using various approaches.

Dudley (2013) believes that teaching limits are placed on a teacher's ability to observe completely. Once the data was analysed, it became clear that we agreed with his view as we recognised that when teaching our lessons, it had proved difficult to recognise the children's involvement and engagement with each aspect of the enhanced provision provided. As non-participant observers, this was a great learning opportunity for us as future teachers. I was surprised to see the difference between my expected level of pupil engagement in the enhanced provision, against my own thought process during the lesson planning stages.

From a professional learning and development point of view, this experience allowed me to determine that a child's level of ability can have a direct impact on their preferred method of learning, meaning the focus task needs to have a kinaesthetic element to it to make it more fun, and therefore more engaging for the lower ability learner. I also recognised that enhanced provision tasks do not need to be as varied, as for the less able children it gave them too much choice, which meant that they did not settle to actively engage in any one of the opportunities provided.

In future, I intend to design and deliver lessons which will allow each pupil to reach their potential relevant to their ability levels. My planning needs to consider the children's different learning styles to try to capture their interest and provide them with opportunities to demonstrate their knowledge and take ownership of their learning which is a key factor in

Donaldson's Successful Futures (2015). I would recommend that any future researchers consider designing focus tasks which involve creative and authentic activities, which Berki and Kampylis (2014) argue, allow teachers to help students in the development of their problem solving or finding skills and mathematical concept. Future research may then compare student engagement between such focus tasks and enhanced provision in light of these variations.

Hancock (2001) suggests that action research can be viewed as an effective means of bringing about teacher involvement in change initiatives taking place in their school, as well as demonstrating the validity of teachers' theories in practice. Academic research targets the creation of new outcomes, theories and arguments through engaging teachers in experiments concerning the realities linked with teaching as a process. Likewise, as the process of research is based on specific enquiry, posing questions and developing answers, it fulfils a significant role in terms of keeping teachers up to date. Of greater significance, encouragement and critical reflection are vital in equipping teachers for a global society. Based on this, I am of the opinion that teaching fundamentally requires teachers' action research in order to satisfy the demands brought about by the teaching or learning contexts and to enable teachers to provide every opportunity for children in their care to reach their maximum potential regardless of their ability levels.

References

- Andrews, M. (2012) *Exploring Play for Early Childhood Studies*. London: Sage.
- Angrosino, M.V. (2012) Observation-based research. In Arthur, J., Waring, M., Coe, R. and Hedges, L. (Eds) *Research Methods and Methodologies in Education*. London: Sage.
- Anning, A. and Edwards, A. (2006) *Promoting Children's Learning from Birth to Five Developing the New Early Years Professional*. 2nd edn. Maidenhead: Open University Press.
- Athey, C. (2007) *Extending Thought in Young Children a Parent-teacher Partnership*. 2nd ed. London: Paul Chapman.
- Baars, B. (1997) In the theatre of consciousness: Global workspace theory, a rigorous scientific theory of consciousness. *Journal of Consciousness Studies*, 4(4), pp. 292–309.
- Beghetto, Ronald. (2016) "Creative Learning: A Fresh Look." *Journal of Cognitive Education and Psychology* 15.(1), pp. 6-23.
- Bennett, N., Wood, E, and Rogers, S. (1997) *Teaching through Play : Teachers' Thinking and Classroom Practice*. Oxford: Oxford University Press.
- Bera.ac.uk. (2018) Ethical Guidelines for Educational Research, fourth edition (2018). [online] Available at: <https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-2018> (Accessed: 14th February 2020).
- Berki, E, Kampylis, P. (2014) *Nurturing Creative Thinking*. Available at: https://www.researchgate.net/publication/262242263_Nurturing_Creative_Thinking/
- Bruce, T. (2011) *Early Childhood Education*. 4th edn. London: Hodder Education.
- Check, J.W. and Schutt, R. K. (2012) *Research Methods in Education*. Thousand Oaks, Calif., Sage Publications.
- Cohen, L., Manion, L. and Morrison, K. (2018) *Research methods in education*. 8th edn. London: Routledge.

Cowan, J. (2010) 'Motivating Students to Learn - By Jere Brophy', *British Journal of Educational Technology*, 41(6), E160.

Crowley, K. (2017) *Child Development*. 2nd edn. London: Sage.

Donaldson, G. (2015) Successful futures: Independent review of curriculum and assessment arrangements in Wales. Cardiff: Llywodraeth Cenedlaethol Cymru.

Dudley, P. (2013) Teacher Learning in Lesson Study: what interaction-level discourse analysis revealed about how teachers utilised imagination, tacit knowledge of teaching and freshly gathered evidence of pupils learning, to develop their practice knowledge and so enhance their pupils' learning, *Teacher and Teacher Education*, 34, pp. 107-121.

Dudley, P. (2015) *Lesson Study : Professional Learning for Our Time*. London: Routledge. Routledge Research in Education.

Duncan, J. and Lockwood, M. (2008) *Learning through play : a work-based approach for the early years*. London ; New York: Continuum International Pub. Group.

Dweck, C. (2012) *Mindset*. London: Robinson.

Edwards, C.H. (1993) *Classroom management and discipline*. New York: Macmillan.

Elliott, E, and Dweck, C. (1988) 'Goals: An Approach to Motivation and Achievement', *Journal of Personality and Social Psychology*, 54(1), pp. 5-12.

Fernandez, C. and Yoshida, M. (2012) *Lesson study: a Japanese approach to improving mathematics teaching and learning*. Routledge.

Gibbs, G. (1998) *Learning by Doing : A Guide to Teaching and Learning Methods*. London: FEU.

Gibson, F. (2007) Conducting focus groups with children and young people: strategies for success, *Journal of Research in Nursing*, 12(5). pp. 473-483.

Gibson, J. (2012) Interviews and focus groups with children: methods that match children's developing competencies, *Journal of Family Theory & Review*, 4(2): pp.148-159.

Godfrey, D. et al. (2019) A developmental evaluation approach to lesson study: exploring the impact of lesson study in London schools, *Professional Development in Education*, 45(2), pp. 325-340.

Golinkoff, R. M, Hirsh-Pasek, K, and Singer, D. G. (2006) *Play = Learning How Play Motivates and Enhances Children's Cognitive and Social-emotional Growth*. Oxford: Oxford University Press.

GOV.WALES. (2015) *Foundation Phase framework* | GOV.WALES. [online] Available at: <https://gov.wales/foundation-phase-framework>

Grabinger, R. S., and Dunlap, J. C. (2000) Rich environments for active learning: a definition, *Research in Learning Technology*, 3(2), pp. 5-34.

Gray, C. and MacBlain, S. (2016) *Learning Theories in Childhood*. 2nd edn. London: Sage.

Hancock, R. (1997) Why are class teachers reluctant to become researchers?, *British Journal of In-service Education*, 23(1), pp. 85-99.

Helme, S, and Clarke, D. (2001) 'Identifying Cognitive Engagement in the Mathematics Classroom', *Mathematics Education Research Journal*, 13(2), pp. 133-153.

Iyengar, S. S., and Lepper, M. R. (1999) *Rethinking the value of choice: a cultural perspective on intrinsic motivation*. *Journal of Personality and Social Psychology*, 76(3), pp. 349 – 366.

Kaplan, A, and Maehr, M. (2007) 'The Contributions and Prospects of Goal Orientation Theory', *Educational Psychology Review*, 19(2), pp. 141-84.

Korb, R. (2012) 'Motivating Defiant and Disruptive Students to Learn; Positive Classroom Management Strategies', *Reference and Research Book News*, 27(2).

Krueger, R. A. (1994) *Focus Groups: A practical guide for applied research*. Thousand Oaks, CA: Sage Publications.

Krueger, R. A., and Casey, M.A. (2000) *Focus groups: A practical guide for applied research*. 3rd ed. Thousand Oaks, CA: Sage Publications.

Krueger, R. and Casey, A. (2009) *Focus Groups: a practical guide for applied research*. Thousand Oaks: Sage Publications.

Laevers, F. and Declercq, B. (2018) 'How Well-Being and Involvement Fit into the Commitment to Children's Rights', *European Journal of Education*, 53(3), pp.325-335.

Lee, W. et al. (2013) *Understanding the Te Whariki Approach Early Years Education in Practice*. Hoboken: Taylor and Francis.

Lieberman, J, et al. (2015) *Play at the Center of the Curriculum*. Boston: Pearson Higher Education.

Iyengar, S. S., and Lepper, M. R. (1999) *Rethinking the value of choice: a cultural perspective on intrinsic motivation*. *Journal of Personality and Social Psychology*, 76(3), pp. 349 – 366.

Mackey, A., and Gass, S. M. (2016) *Second language research: Methodology and design*. 2nd ed. New Jersey: Lawrence Erlbaum Associates.

Maehr, M. L., and Zusho, A. (2009) Achievement goal theory: The past, present, and future. In Wentzel, K and Wigfield, A, (Eds.), *Educational psychology handbook series. Handbook of motivation at school*, (pp. 77-104). New York: Routledge.

Malaguzzi, L. (1993) 'For an Education Based on Relationships', *Young Children*, 49(1), pp. 9–12.

Martin, A. J. (2008) 'Enhancing Student Motivation and Engagement: The Effects of a Multidimensional Intervention', *Contemporary Educational Psychology*, 33(2), pp. 239-69.

Martlew, J, Stephen, C. and Ellis J. (2011) 'Play in the Primary School Classroom? The Experience of Teachers Supporting Children's Learning through a New Pedagogy', *Early Years: An International Journal of Research and Development*, 31(1), pp. 71-83.

- May, P. (2013) *The Thinking Child : Laying the Foundations of Understanding and Competence*. London: Routledge.
- Maynard, T. (2007) 'Encounters with Forest School and Foucault: A Risky Business?', *Education 3–13*, 35(4), pp. 379–391.
- Maynard, T., Waters, J., and Clement, J. (2011) 'Moving Outdoors: Further Explorations of 'Child-initiated' Learning in the Outdoor Environment', *Education 3–13*, 4(3), pp. 282–299.
- McDonough, J., and McDonough, S. (1997) *Research methods for English language teachers*. London: Edward Arnold.
- McIntyre, D. (1993) Theory, Theorizing and Reflection in Initial Teacher Education. In Calderhead, J. and Gates, P. (Eds.), *Conceptualizing Reflection in Teacher Development*. London: Falmer.
- Mclean, A. (2003) *The Motivated School*. London: Paul Chapman.
- Menter, I., et al. (2011) *A Guide to Practitioner Research in Education*. London: Sage.
- Moore, A. (2012) *Teaching and Learning: Pedagogy, Curriculum and Culture*. London: Routledge.
- Morgan, D. L. (1997) *Focus Groups as Qualitative Research*. 2nd ed. London: Sage.
- Morgan, M., et al. (2002) Hearing children's voices: methodological issues in conducting focus groups with children aged 7-11 years, *Qualitative Research*, 2(1): pp. 5-20.
- Morrison, G.S. (2016) *Fundamentals of early childhood education*. 8th Edition. Pearson.
- Morrison, K. (2013) 'Interviewing Children in Uncomfortable Settings: 10 Lessons for Effective Practice', *Educational Studies*, 39(3), pp. 320-337.
- Moule, P. and Goodman, M. (2009) *Nursing Research: an introduction*. London: Sage.

- Nyumba, T, et al. (2018) 'The Use of Focus Group Discussion Methodology: Insights from Two Decades of Application in Conservation', *Methods in Ecology and Evolution*, 9(1), pp. 20–32.
- Piaget, J. and Cook, M. T. (1952) *The origins of intelligence in children*. New York, NY: International University Press.
- Punch, K.F. and Oancea, A. (2014) *Introduction to Research Methods in Education*. 2nd ed. London: Sage.
- Rasmussen, K. (2016) 'Lesson study in prospective mathematics teacher education: didactic and paradidactic technology in the post-lesson reflection', *J Math Teacher Educ*, 19, pp. 301–324.
- Rinaldi, C. (1998) 'Projected Curriculum Constructed through Documentation – Progettazione; An Interview with Lella Gandini', In *The hundred languages of children: The Reggio Emilia approach – Advanced reflections*, edited by C. Edwards, L. Gandini, and G. Forman, pp. 113–125. New York: Ablex.
- Roethlisberger, F.J. and Dickson, W.J. (1939) *Management and the Worker*. Cambridge, MA: Harvard University Press.
- Ryan, R, and Deci, E. (2000) 'Self-determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-being', *The American Psychologist*, 55(1), pp. 68-78.
- Smilansky, S, and Shefatya, L. (1990) *Facilitating Play : A Medium for Promoting Cognitive, Socio-Emotional, and Academic Development in Young Children*. Gaithersburg, Md, Psychological & Educational Publications.
- Soler, J. and Miller, L. (2003) 'The Struggle for Early Childhood Curricula: A Comparison of the English Foundation Stage Curriculum, "Te Whariki" and Reggio Emilia', *International Journal of Early Years Education* 11(1), pp. 57-68.
- Stodden, D. et al. (2008) 'A Developmental Perspective on the Role of Motor Skill Competence in Physical Activity: An Emergent Relationship', *Quest*, 60(2), pp.290–306.

Thomas, A. and Lewis, A. (2016) *An Introduction to the Foundation Phase Early Years Curriculum in Wales*. London: Bloomsbury.

Thompson, M, and Beymer, P. (2015) 'The Effects of Choice in the Classroom: Is There Too Little or Too Much Choice?', *Support for Learning*, 30(2), pp. 105-20.

Thornton, L. and Brunton, P. (2007) *Bringing the Reggio Approach to Your Early Years Practice*. Abingdon: Routledge.

Truty, D. (2004) 'Engaging Schools: Fostering High School Students' Motivation to Learn', *Choice*, 42(2), p.344.

Vygotsky, L. (1978) *Mind in society*. Cambridge, MA: Harvard University Press.

Wainwright, N, et al. (2019) 'Playful Pedagogy for Deeper Learning: Exploring the Implementation of the Play Based Foundation Phase in Wales', *Early Child Development and Care*, 190(1), pp. 43-53.

Walliman, N. (2011) *Your Research Project: designing and planning your work*. 3rd ed. London: Sage.

Walsh, G, et al. (2010) 'Implementing a Play-based and Developmentally Appropriate Curriculum in Northern Ireland Primary Schools: What Lessons Have We Learned?', *Early Years* 30(1), pp. 53-66.

Whitebread, D. (2012) *Developmental Psychology and Early Childhood Education*. London: Sage.

Wood, E. (2013) *Play and Learning and the Early Childhood Curriculum*. 3rd edn. London: Sage.