

ASSIGNMENT DETAILS AND FEEDBACK

SOUTH WEST WALES CENTRE FOR TEACHER EDUCATION

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

Student name:	ALEXANDER DAVIES	Student P number:	P138120
Programme: *	PGCE Primary		
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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 ✓

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.

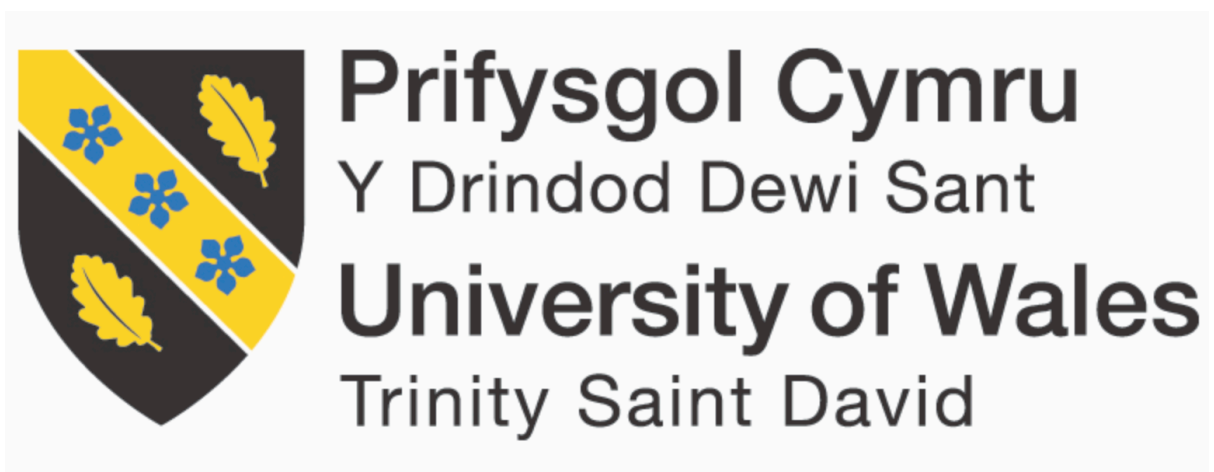
Student Self Evaluation Form

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)	☐	☐	☐	X	☐	☐
2. Intellectual Skills (Analysis)	☐	☐	☐	X	☐	☐
3. Pedagogic and Professional Applications (Practical Application and Deployment)	☐	☐	☐	X	☐	☐
4. Key Transferable Skills	☐	☐	☐	X	☐	☐

PLEASE COMMENT ON AREAS IN WHICH YOU FEEL THAT YOU HAVE PERFORMED WELL	PLEASE COMMENT ON AREAS YOU FEEL THAT YOU NEED TO DEVELOP
WIDE RANGE OF READING. STRUCTURE OF RESEARCH. WORKING COLLABORATIVELY WITH A FELLOW STUDENT.	DEVELOP REFERENCING. CRITICAL ANALYSIS.

Student's Name	ALEXANDER DAVIES	Date	11/4/18
Student's Signature	A DAVIES.		

How can we engage pupils in Foundation Phase to use a self-assessment technique to enhance their understanding of the learning objective?



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How can we engage pupils in Foundation Phase to use a self-assessment technique to enhance their understanding of the learning objective?

Purpose of the research

The aim of this research project is to explore the question of how we can engage pupils in the Foundation Phase to use a self-assessment (SA) technique to enhance their understanding of the learning objective. During my time in the mixed year 2/3 foundation phase classroom, I was able to observe many strategies being implemented within the mainstream setting. Something that was regularly used at the end of each session that interested me, was that of SA. This interested me because the teacher explained that it was a developing skill and had only recently been introduced and the children were still getting used to it. When researching SA within the Foundation Phase I discovered that there was very little research regarding the topic. I believe that it would be interesting and valuable research to investigate whether learners in foundation phase are able to engage with SA tools at their age in relation to the learning outcome. SA is a significant aspect of assessment for learning (AfL) and when children assess their work, or that of others, it can meaningfully improve their understanding of the learning objective and success criteria (Nfer, 2007).

Research Context

The research was conducted by two researchers in a primary school setting that caters for three to eleven-year olds on the outskirts of Neath in South Wales. According to Welsh Government figures, (My Local School, 2017) data the primary school has approximately 507 pupils on roll. 18.5% of the which are eligible for free school meals (FSM). Both researchers have spent time in the school during their PGCE professional teaching experience (PTE) because of this, the research was conducted in a familiar setting. The first lesson study took place in a reception class with 30 pupils. The second took place in a mixed year 2/3 class with 30 pupils; 23, year 2 pupils and 7, year 3 pupils. Due to time, resource and research constraints it proved difficult for the researchers to record and gather data of every child. So, it was agreed upon by both researchers that three mixed-ability focus children would be chosen from each class, this will be discussed further in 'Lesson Study design'.

Prior to undertaking the research, it was imperative that both researchers discussed any educational strategies, questions and focusses that interested them so together they could study further. Both researchers agreed that self-assessment was an element of formative assessment that interested them. It was agreed that the research would focus on Foundation Phase children's ability to use SA as a tool to illustrate their engagement and understanding of the learning objective. When thinking of the purpose of this investigation there were a number of key questions that came to mind. These questions were believed to be fundamental to the

researcher's professional development in accurately determining the success of SA in the Foundation Phase setting. Firstly, would the age of the selected children impact on their ability to self-assess their understanding of the learning objective? Secondly, how would the researcher's measure the level of engagement and understanding of the children taking part in the lessons? Thirdly, how would the data gathered during the lesson observations be of value to the researchers in helping to evaluate how appropriate the lessons were in supporting the children's development of self-assessment? Then, finally what could be done to further support the development of this skill in young children in future lessons.

Literature Review

'The literature review forms an important chapter in the thesis' Bruce (1994 cited in Ridley 2012). When undertaking research, it is important to know what has been written about the area of study. It has been highlighted however that there is little research on self-assessment in foundation phase. The aim of this literature review is to help establish a theoretical framework and methodological focus in order to help carry out the research.

'Assessment for Learning (AfL) is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there' (Assessment Reform Group, 2002). AfL is involved with everyday teaching and learning (Cremin & Arthur, 2014) and is based on the idea that pupils will improve if they understand why they are learning and what the aim of their learning is. AfL was identified as a major means of raising standards, especially for lower achieving pupils (Black & Wiliam, 1998). Black & Wiliam's study which reviewed 250 research articles and 160 journals, identified substantial learning gains due to AfL. Their review of over 20 classroom studies acknowledged an increase in both primary and secondary education performance and they concluded that no other single improvement initiative was as effective as formative assessment. However, it must be ensured that pupils receive regular constructive feedback, so they are clear about what they need to do to improve for these gains to be made (Grigg, 2015). Hattie (2008) confirms that feedback is an effective way to improve education. The aim of AfL is not solely to motivate children to challenge themselves when solving problems, but also to help them develop their own identity as able individual learner's. AfL can help those children with low attainment change their attitude towards assessment as something that can help them learn by highlighting what they can do rather than what they can't. For those children with higher attainment, it provides opportunity for a challenging curriculum that focuses on their progress instead of just meeting targets (Guardian, 2013).

AfL develops the learner's ability for SA so they can become skilful at reflecting on their learning experiences and become more independent in their learning (Swafield, 2009). SA is an important aspect of assessment for learning (AfL). Hattie (2008) and

Stiggings (2008) believes that SA is one of the top factors in raising school standards. Children's ability to assess their own work, or that of others can considerably improve their understanding of learning objectives and success criteria (Nfer, 2007). However, Black & Wiliam (1998) suggest that pupils can only accurately assess themselves when they have a clear picture of the targets and objective. ARG (1999) however, states pupils make better progress when they are actively involved in their own learning and assessment. As well, research conducted by Black and Wiliam (1998) emphasises several reasons why SA is essential, one for instance is, if learners can reflect accurately and honestly, the evidence can support teachers' judgements and provide insight to pupil thinking. The researchers chose to use the SA strategy of 'traffic lighting'. This was chosen as it is a simple and effective means of recording understanding.

Several criticisms of SA have been highlighted by Dunning, Heath and Suls (2004). They believed that SA can be inaccurate due to children being unrealistically positive about their achievements, believing that they are above/below average in their ability. As well self-assessments can neglect and lack crucial information. Inaccurate SA may also be accredited to the different social environments in classes, where children may feel they need to protect themselves. Instances of protecting self-worth could result in over estimation of ability (Saavedra & Kwun, 1993). Some inaccuracies may deliberate, others may be unintentional or subconscious. Hattie (2012) however, states that children are capable of reflecting on their own learning, this is reiterated by Warash and Workman (2016) who said that children have the ability to make decisions, informed choices and self-assess work. Furthermore, Stipek (1984) concluded that children of foundation phase age were more than capable of assessing performance. Guice and Johnson (1995) research indicated that young children showed thoughtful SA opposed to older age groups. I believe that this could be due to children becoming more self-conscious and aware of their own abilities in comparison to that of their peers when they are older, resulting in less thoughtful and true SA. Pupils can display negative attitudes or are happy to 'get-by' if they believe assessment focuses on comparing their performance against others (Murphy, 1998 cited in Grigg, 2015). Alternately, assessment that supports children to think about their individual performance can develop confidence and self-belief (McCurdy, 1992 cited in Grigg, 2015). The view of Hillyer and Lev (1996) is that there is no consensus about the age at which children can truly begin to accurately self-assess. It could be argued that the above research is limited and dated and emphasises the need for further research on SA in the foundation phase.

Purpose of sharing success criteria is designed to help pupils independent and confident learners. Learners will need to be familiar with the success criteria if they are to assess their work accurately, effectively and helpfully in order to take responsibility for moving their learning forward. Children will offer their own ideas of

what criteria are used to measure success (Grigg, 2015). The sharing of the criteria makes it clear to learners what will be looked at when deciding whether they have met the learning objectives. Teachers need to develop a range of strategies to support learners in generating success criteria collaboratively with peers and foster their gradual internalisation of the criteria on which they are assessed by their teacher (WAG, 2010). This in turn will help them use the criteria to peer and self-assess accurately. In general learners produce better quality success criteria when working collaboratively and by doing so construct their own learning and learn through their own mistakes.

Development of effective SA takes effort and time to embed. However, once fully implemented into teaching and learning it can prove to be effective in motivating pupils to become independent learners in moving their learning forward. From the literature there appears to be a wealth of information regarding the benefits of implementing formative assessment and SA. However, there still remains a gap in research and literature regarding self-assessment in the foundation phase.

Lesson Study design

It is important that effective researchers consider carefully the methodology used in the project so that they closely match the aim of the research (Grigg, 2015). The methodology used in this research-based project on engaging pupils in self-assessment in Foundation Phase was a 'lesson study', a form of action research. Action research is to study and seek to improve an aspect of classroom practice. It is research carried out by 'the actors themselves' (Bassey, 2007, 148). The process is participatory and systematic in its form and provides many beneficial opportunities for teachers in improving teaching and learning (Hine, 2013). However, action research has been criticised for being 'all action and no research' (Godfrey, 2004, 207). Furthermore, critics argue that few educators use action research regularly to improve practice (Grigg, 2015). On the other hand, the use of teacher's research to develop understanding has been seen by some as a 'path to empowerment' (Kincheloe, 2003 cited in Grigg, 2015); in that engaging teachers in research enables teachers to take control of what they do rather than responding to educational policy or research created in other situations. A lesson study is a highly specified form of classroom action research, focussing on the development of teacher practice knowledge. The lesson study methodology has been praised for being an influential, professional learning approach that can significantly improve learning and teaching (Dudley, 2014). Two lesson studies were planned with the aim of engaging pupils in Foundation Phase with the use of a SA technique (traffic lighting) in order to enhance their understanding of the learning objective. The lessons delivered would possibly help change their 'teaching to better support learning as a result' (Dudley, 2011, p.3). Considering this, the researches addressed each activity to the learning

goal and together, predicted how the pupils would react. Thus, collaboratively enquiring to potentially improve the SA approach that both researchers had an interest in as a 'joint professional development project' (Hargreaves 2012, cited in Dudley 2014).

The design of the lesson study was to teach a simple lesson to the participants that would have a clear objective for them to assess their learning. The researchers carried out two lesson studies. When carrying out the first lesson, one researcher took on the role of the non-participant observer, whilst the other taught the group. Following this concrete experience both researchers, non-participant and teacher worked collaboratively to reflect on their lesson observations and evaluate the participants understanding of the lesson objective and ability to self-assess. The outcome from the first lesson determined the necessary changes required for the active experimentation in the second lesson. Newby (2014) highlights the cyclical notion of action research in that it continually evolves. When considering Schon (1983) and Kolb's (1984) reflective models, the research agreed upon will reflect the principles of action research.

The methods of data collection used during the lesson studies were the non-participant observer and a focus group interview where both researches hoped they would gather sound qualitative data to analyse how well children were able to self-assess their work in relation to the objective. All data gathered was recorded on an observational record sheet and discussed during reflection meetings by the researchers.

The non-participant observation method of data collection allowed the researchers to enter the classroom environment as an outsider discreetly observing what happens during the lessons events, activities and interactions. This form of data collection has been used extensively in case study research with the aim of acquiring a direct understanding of an experience in its natural setting (Mills et al. 2010). A benefit of using this form of observation is that the observer as an outsider is less likely to produce bias data. As well, the non-participant observer witnesses' events with their own eyes and they can accurately observe and make judgements. Contrastingly, an issue highlighted with the use of non-participant observation is that of the 'Hawthorne Effect' that concerns the participants and the consequential awareness of them being studied which could have a possible impact on behaviour (McCambridge, Witton & Elbourne, 2014). However, the observer did not actively take part in the situation under scrutiny so there was no interaction with the participants, reducing the risk of the Hawthorne Effect significantly.

Another method used to gather qualitative data in the lesson study process was a focus group interview where the 'researchers and participants met as a group to

discuss a topic' (Mack et al. 2011, 51). During this process the lead researcher in the lesson study asked the participants questions, the observer recorded detailed responses on the observation record sheet. An advantage of using focus groups is that a large amount of detailed information can be gathered in a short period of time (Mack et al. 2011). Participants were questioned about the learning objective, the activity they completed, the reason behind their choice of colour when traffic lighting, how do they think traffic lighting will help them learn. The focus group interview was a valuable tool for collecting qualitative data during the research process. The focus group interview is 'centred on the evidence to be generated for achieving the research objectives of describing, predicating or explaining' what was identified (Cohen & Manion, 2007, cited in Dilshad & Latif, 2013 p.1). The purpose of the focus group interviews with the participants was to assess their engagement and understanding of the process of self-assessment as a technique to enhance their understanding of the learning objective. According to Green et al. (2003), the uniqueness of a focus group is its ability to generate data based on the synergy of group interaction. Alternatively, Krueger (1994 cited in Rabiee, 2004) states that rich qualitative data can only be generated if the participants are fully engaged in the process and advocates the use of a similar participants in a group. In most cases other researchers would recommend that group participants should not know each other as responses would be more spontaneous and honest. However, it can also be argued that those group participants who are acquainted with each other share a degree of trust resulting in the expression of views more freely. The focus group for this lesson study process were made up of participants who were of differing abilities and gender.

In this research, the qualitative data gathered from the non-participant observations and focus group interviews were beneficial because it helped both researchers interpret and understand the complex reality of the situation. Qualitative data is data that tends to answer questions about the 'what, how and why' of a phenomenon opposed to questions of 'how many or how much'. An advantage of gathering qualitative data is that it is in-depth and appropriate for observation methods in which detailed understanding is required. Furthermore, the gathering of qualitative data allowed both researchers to flexibly probe participant responses, asking why or how (Mack et al. 2011). However, because of the subjective nature of qualitative research, findings are not always accepted by accompanying researchers. This could be overcome by further independent research efforts which could produce similar findings.

The qualitative data gathered was taken in the form of comprehensive field notes and recorded on an observation record sheet by the non-participant observer. Taking field notes is an essential skill, especially for qualitative research data (Hoffmann, 2001) when note taking all facts must be copied accurately to avoid mistakes, double

checked and where there is any doubt triple checked. Additionally, an advantage of note taking is that it facilitates analysis because notes are often categorised and readily accessible (Gall et al. 1996). However, in some scenarios taking field notes might distract participants and could lead to the observer missing important aspects of events as they unfold (Muswazi & Nhamo, 2013). The observation record sheet used by the non-participant observer consisted of the 'Leuven Scale for Involvement' where the observer had to tick the box that reflected the level of involvement. Using the observation record sheet made it easier for the observer to record information as it was structured and allowed the observer to monitor participant assent. The observer monitored the participants using a scale of poor, adequate, good or excellent to reflect the participants understanding of the objective, success criteria and self-assessment.

Following the lesson study and focus group interview process, the researchers came together to reflect on what was seen during the lesson study observations. During our time reflecting on the lesson and analysing the data we took into consideration Kolb's (1984) learning cycle theory. Kolb's theory suggests that effective learning is seen when a person progresses through a cycle of four stages. The first being a concrete experience which was the lesson study followed by reflective observation where both researchers reviewed the experience. This then lead to the formation of abstract concepts and generalizations which were then used to test hypothesis in the lesson study 2. However, effective learning can only take place when a learner can accomplish all of the four stages of the model. Consequently, no one stage of the learning cycle is effective as a learning procedure on its own (Simply Psychology, 2017). Schön (1991) on the other hand, presented the concept of two types of reflection, namely, 'reflection in action' and 'reflection on action'. Due to the cyclical nature of the research it was agreed that Kolb's Learning Cycle would best support the study and allow for in depth analysis and evaluation.

Ethical Considerations

It is important to note that there were several ethical considerations when undertaking the research in a primary school-based classroom environment. According to Grigg (2015) 'ethical framework should encase all stages of research, from drawing up aims and questions, through to collating, storing and presenting data'. Prior to undertaking such research, it was vital that both researchers were aware of and had a good understanding of the key ethical guidance documents that were recommended for research purposes. The researchers adhered to ethical guidance documents as follows: EWC: Code of Professional Conduct and Practice for Registrants with the Education Workforce Council (2017), UWTSD: Research Ethics & Integrity Code of Practice (2017) and BERA: Ethical Guidelines for Educational Research (2011).

Furthermore, before the research could commence, both researchers had to design an observational record to monitor to on-going assent. As well, prepare an explanatory statement to inform participants of the research purpose and their rights. So, should any of the participants wish to withdraw then they were able to do so. Additionally, an Athrofa explanatory letter requesting parental consent was given to parents in order to gather informed consent from children's parents. The researchers took into consideration anonymity and confidentiality, children were referred to as 'Child 1, Child 2' and so on. Thus, adhering to section 19.4 and 19.6 of UWTSD Research Ethics Code of Practice and pages 5-8 of BERA Ethical Guidelines.

Both researchers were aware of the risks to participants, themselves and any university/institutional risks when undertaking the research project. Importantly the research was carried out in an ethically proper manner, ensuring that appropriate steps were taken to protect interests, status, values and beliefs of the participants in adherence to BERA Guidelines and UNCRC (1990) Rights of the Child. Throughout the process both researchers complied to ethical, legal and professional frameworks and standards as required by statutory and regulatory authorities including UWTSD Integrity & Ethics Code of Practice.

In accordance with the UWTSD Research and Data Management Policy and Data Protection Act 1998, all data gathered by the researchers was saved on a password protected memory device as well as an encrypted laptop which only the researchers could access. Upon completion of the of the research, all data was archived.

Lesson Study 1

As can be seen in the lesson plans (appendix 1 & 2) it was agreed that the study would consist of two lessons focusing on mathematics, the first lesson concentrating on ordering numbers and the second on addition. Both lessons would take place in the same school but in different age phases, reception and year 2 and would be delivered by each of the researchers, familiar to the class.

The teacher started the lesson with a short group warm-up game that involved finding the numbered cards around the working area and then ordering them. No success criteria were displayed but the teacher explained what would be expected of them. Following this the children individually took part in a number-sequence activity whereby the children had to step on the lily-pads in the correct sequence from 1-10 or 1-20 depending on attainment group. The children were then asked to self-assess their work using the traffic light system. Prior to this the teacher gave a brief explanation of what each traffic light colour represented. For example, red being "I found the work difficult", orange being "I found it okay, but need more

practice” and green being “I found out I was good at this work”. All children participated and were engaged in the process, however, not all learners assessed their work as predicted. At the end of the lesson a focused group interview was conducted with the sample children (Appendix 3-8).

As can be read in appendix 3-4 ‘child 1’ was fully engaged in the lesson and listened to and responded well to instructions and any questions. The child showed a sound understanding of the lesson objective as when asked their response was “counting and ordering numbers to 10”. The child worked well with peers and ordered the numbers with relative ease. However, the child experienced difficulty with the lily-pad task. Some learning took place during this activity; however, it is clear that the child would need to be given the opportunity to practice ordering numbers. When asked by the researcher to choose a traffic light colour that represented their understanding, child 1 chose orange. This choice of colour accurately reflected the child’s level of understanding of the activity and also showed the child’s ability to think and make the connection between what the learning objective was and what they had achieved. When prompted to explain why child 1 chose this colour, the response was “I did not make it across the lily-pads”, this response however did need some clarification, child 1 further responded with, “I made a splash”.

As evident in appendix 5-6 similarly to child 1, ‘child 2’ was very excitable and enjoyed taking part in the lesson and was extremely enthusiastic. However, the observer noted that child 2 appeared to be so excited that it was not entirely clear as to whether the child was fully engaged. When asked what the learning objective was, child 2 responded “count to 20 ordering numbers” however, when asked again after the activity child 2 responded with “count in 20’s”, this supports the observer’s impression that the child was not fully engaged. The traffic light chosen by child 2 was also orange, this traffic light did not represent the level of learning and understanding demonstrated during the activity. Child 2’s choosing of orange reflected that of peer responses when questioned why that colour was chosen. When those children’s learning and understanding was actually greater than child 2’s. This demonstrates that child 2 was unable to think about and make the connection between the learning and understanding of the objective as the child copied peer responses.

In appendix 7-8 it can be seen that ‘child 3’ exhibited clear signs of involvement and was engaged in and showed enjoyment in finding and ordering the numbers as well the lily-pad task. On occasions however, child 3 became distracted by peers talking. Child 3 showed a sound understanding of the lesson objective as their response to the teacher was “count to 20 and order number”. Child 3 also understood that to successfully get from 1-20 on the lily-pads, it had to be done in the correct sequence. The traffic light chosen by child 3 was red, this did not reflect

the level of learning and understanding exhibited by the child. Orange would have been more suitable. When asked to explain why red was chosen, the child responded, "I chose red because I liked the work". This response demonstrates that even though each colour was explained, the child did not fully understand how to assess their understanding of the learning objective.

From the qualitative data gathered it can be concluded that all the children observed in the lesson study showed a sound understanding of the lesson objective but demonstrated difficulty conceptualising the SA procedure when traffic lighting. Child 1 appeared to show a developing skill of self-assessment whilst 2 and 3 appeared to not fully understand how to assess their learning and understanding accurately.

After reflecting on the first lesson study, it was decided by the researches that several amendments were necessary to help develop the children's ability to use the SA technique of traffic lighting to enhance their understanding of the learning objective. Firstly, it was agreed that in addition to the learning objective, the children would generate success criteria needed to achieve the objective with teacher support. This was considered because the sharing of success criteria makes it clear to children what will be looked at when deciding if they have met the objective (Cremin & Arthur, 2014). Researchers felt it would be a good idea to introduce a physical representation of a traffic light (appendix 15) and model example responses because SA will occur if teachers support the learners (WAG, 2010). Finally, the last change made was that children would have their own traffic light on their task sheet, to hopefully stop any copied responses.

Lesson Study 2

The teacher started the maths addition lesson with a short warm-up activity of simple addition using dice and whiteboards. Following this the teacher showed the children the model traffic lights. Next the teacher talked to the children about success criteria and asked them what they thought it was. The children had an idea of what it was. The teacher then explained that success criteria helps us to understand our learning and understanding of the learning objective. According to Cremin & Arthur (2014) children need to understand the learning goals so they can accurately judge whether they have achieved them. Furthermore, it allows the child and teacher to become partners in the learning process and provides the opportunity to develop goals (Liebovich, 2015). Then, how it can be used to help us decide which traffic light to choose when assessing our work and the next step. The teacher explained the lesson objective and together, both the teacher and children generated simple success criteria. The children were also made aware that they had their own traffic light on their sheet that they had to colour it when they finished their work. At the end

of the lesson a focused group interview was conducted with the sample children (appendix

‘Child 4’ (appendix 9-10) was continually engaged in the activity and was enthusiastic about the task. Child 4 completed the work with no support and engaged well with the success criteria that was generated with support from the teacher. A response given to the teacher when discussing the criteria was “I like using the 100-square”. Child 4 understood how to use the SA tool and appeared to like the concrete representation of the traffic light. The colour chosen was green which was accurate assessment on behalf of the child for the work produced. The child recalled the success criteria when justifying the colour choice. Thus, reflecting a good understanding of both success criteria and traffic lighting as an assessment of their learning to the objective.

As can be seen in appendix 11-12 ‘child 4’, similar to ‘child 5’ was engaged in the lesson and displayed a good work ethic. Child 5 showed a sound understanding of the traffic light system, which was reflected by their accurate choice of colour. Child 5 used their understanding of the success criteria to justify choosing green. This shows child 5 was able to successfully assess their learning and understanding based on the success criteria and objective.

‘Child 6’ (13-14) was also fully engaged in the activity and showed a good understanding of what was required to be successful. ‘Child 6’ confidently contributed to the generating of success criteria and suggested that column addition could be used to solve the problems, which was included in the criteria generated. Child 6 showed a very good understanding of SA, it was noted by the observer that the visual traffic light was not necessarily needed as the child seemed confident enough to self-assess accurately. The colour chosen was green, a true reflection of the learning and understanding exhibited during the task by child 6. Child 6 also added “I used column addition, then looked, then made sure using the 100-square”. Again, showing child 6’s ability to accurately reflect on what was done in relation to the success criteria.

After reflecting on the lesson study, it was agreed by both researchers that we should have another lesson study we would like to incorporate peer assessment because it is considered to a compliment to SA (Black & Wiliam, 1998). This was chosen because both researchers felt that it would help children to evaluate work further and discuss learning with peers. Following the embedding of accurate traffic lighting using success criteria and peer assessment would be peer commenting and marking, where the children peer-mark the work using an emoji for the learner to see. Finally, both researchers discussed the possibility of further cyclical research in

devising next steps learning through the use of differentiated success criteria for different abilities.

From the data gathered in the second lesson study it can be concluded that child 4, 5 and 6 showed an improved understanding of traffic light SA when assessing their work. The success-criteria appeared to support the development of more accurate SA in these cases and enhance their understanding of the learning objective.

Research Findings

Much of the research gathered in the lesson studies considers SA to be beneficial to learning and understanding of the learning objective which appears to be consistent with the limited research findings. All learners and teachers must recognise and understand the effectiveness of SA using success criteria in improving the learners understanding of the lesson objective. This was clear in lesson 1 when child 1 showed a developing understanding of the skill of SA by accurately choosing the colour that represented their work. Child 1's ability to accurately assess reflected their understanding of the lesson objective (Nfer, 2007). Child 1's responses to the teachers question during the focus group further confirmed his understanding. Child 2 and 3 however, found the concept of self-assessing their work more difficult as the colours chosen did not accurately reflect their work. This confirms Dunning, Heath & Suls (2004) research that children's self-assessment may be inaccurate due to them being unrealistically positive/negative about their abilities. Both children however, showed a sound understanding of the lesson objective but without a success criterion were unable to accurately reflect on what they had achieved. This supports Grigg (2015) who stated that learners need to be familiar with the success criteria in order accurately self-assess their work which should be done with teacher support (WAG, 2010).

In lesson study 2 it was agreed by both researchers that the concept of a success criteria be introduced with the learning objective at the beginning of the lesson as an improvement. The aim being to support learners understanding of the learning objective and help them assess their work accurately. Providing that learners understood the goals they were pursuing with the implementation of the criteria (ARG, 2002). This was done so the learners would become familiar with what was expected of them (Grigg, 2015). With the facilitation of the teacher (WAG, 2010) the children generated a success criterion that matched the learning objective to encourage independent learning, a key component of SA (Swafield, 2009). As Black & Wiliam (1998) stated, pupils will only assess themselves accurately when they are aware of the targets. As can be seen from lesson 2 study analysis, the introduction of a success criteria significantly improved the accuracy of SA outcomes for the children involved. Thus supporting, Stipek (1984) and Guice and Johnson's (1995)

research stating that foundation phase aged children were capable of thoughtful SA. The traffic colours presented to the teacher by the children 4/5/6 were all accurate and children provided a sound justification for their choice relating to the success criteria. This also supports Hattie (2012) statement that children are capable of reflecting on their learning.

When considering the literature reviewed and the action research carried out in the lesson studies it is clear that strategies such as traffic lighting along with the use of success criteria can help engage pupils in the Foundation Phase to use SA to enhance their understanding of the learning objective. SA is seen as making significant contributions towards the development of pupils academically and is a viable tool for developing learning and thinking about how to progress. When children are involved with the generating of success criteria, it aids them in their learning and as a result can improve their own SA and ability to assess peers.

Conclusion

The research concentrated on how a lesson study design could be used to investigate how we can engage pupils in Foundation Phase to use a self-assessment technique to enhance their understanding of the learning objective. In particular the researchers focussed on refining two lesson studies to improve children's ability to self-assess to the learning objective. The reason for the research was that I discovered that there was very little data regarding self-assessment in the foundation phase. Self-assessment had been introduced in the year 2 and was a developing skill for most children. Reception pupils on the other hand, had never self-assessed work, therefore the idea of self-assessment was a completely new concept.

The use of a lesson study as a form of action research proved to be an apt strategy for conducting the research. It allowed for a specific area of interest to be investigated and refined in a classroom situation. Working collaboratively with a fellow researcher to reflect was beneficial and productive as discussing observations and outcomes together ensured that refinements agreed upon were relevant. It was agreed by the researchers that repeating the lesson with the agreed refinements would be a positive experience for both the learners and researchers. When considering the outcomes of the research however it must be recognised that the results were specific to the small groups of children worked with, convenience sampling (Sharp, 2012). Further research would need to be conducted as recommended by Dudley (2015). This research would need to be conducted across classes with larger groups of children with different attainment levels to compare more responses. The strategy allowed for a range of data collection, namely, a lesson study, non-participant observer and focus group interview. The group

interviews gave the children the opportunity to express their own views and ideas and allowed for accumulation of data. However, it was noted that disadvantages with the interviewing process were that it relied heavily upon group assisted discussion to produce results, consequently the facilitation of discussion is critical (Leung & Savithri, 2009). Furthermore, confident individuals dominated the talk in both lessons with comments not always being relevant. However, it can be difficult for a non-participant observer to record data accurately resulting in the qualitative research being subjective and possibly unacceptable to accompanying researcher. Hopkins (2008) points out that poor observation is characterised by moving to judgements too quickly.

Recommendations

The research will help support my professional development as a teacher in promoting autonomous learning within my class for all children. The researchers aim is to enable children to recognise when they have understood and met the lesson objective through a SA process, such as traffic lighting. Generating success criteria with the children would help them to identify what they have achieved and what they need to do next with greater accuracy. Additionally, I now realise the importance of action research when seeking to improve an aspect of my classroom practice. Taking part in action research has also taught me how to work collaboratively towards a common goal through experimentation and observation of children's responses.

The research project undertaken was a small-scale study that was constrained by time and so it is recommended that the research findings be shared with fellow researchers and education professionals to further study. Research could be conducted using the lesson study approach across several classes in the foundation Phase setting. Each study could focus on children who are the same age and of similar attainment. Also, researchers recommend that the sample size be extended to include more than three children as it proved difficult to generalise the data gathered.

It is suggested that further research should consider focusing on providing children with quality SA training, to enable them to establish a better understanding of success criteria when linking learning to the lesson objective. It is the hope that findings gathered in this research project will be used to successfully design and implement effective SA strategies to help learners understand how to accurately assess their work and become more autonomous in moving their learning forward. Both researchers are hopeful that the data gathered will help share good practice and raise standards of learning within the Foundation Phase primary school setting.

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Appendices

Name of Trainee: Alex Davies		Session ref: Addition	Date: 28.3.18	Class: Year 2/3 JE	Cynllun Ffocws y Cyfnod Sylfaen 2d
Targed(au) Hyfforddi Personol					
Number of learners: 30 Age: 6/7/8					
Learning objectives/intentions:	WALT: To solve addition problems.	Success Criteria	Read and understand the problem. Select appropriate apparatus to help solve problems. Counting on or count back to find the answer.	Meeting learners' needs:	Coch (ALN) Glas (LA) Melyn (A) Gwyrdd (MAT) Differentiate through support and number.

Name of Trainee: Jordan Hughes		Session ref:	Date: 12.02.2018	Class: Reception	Cynllun Ffocws y Cyfnod Sylfaen 2d
Targed(au) Hyfforddi Personol					
Number of learners: 30 Age: 4-5					
Learning objectives/intentions:	- Compare and order numbers to at least 5 - Compare and order numbers to at least 10 - Compare and order numbers to at least 20	Success Criteria	HA - I can order numbers to 20 - I can read numbers up to 20 - I know how to order numbers up to 20 - I can jump on the lily pads through the swamp, using the correct order of numbers. A - I can order numbers to 10 - I can read numbers up to 10 - I know how to order numbers up to 10 - I can jump on the lily pads through the swamp, using the correct order of numbers. LA - I can order numbers to 5 - I can read numbers up to 5 - I know how to order numbers up to 5 - I can jump on the lily pads through the swamp, using the correct order of numbers.	Meeting learners' needs:	Differentiated outcome

Participant Number: **1**Observational record

Name of teacher: J.H	Name of observer: A.D
Date of observation: 27-3-18	Length of session: 20 mins.
Subject: Maths - Counting	Year group: Reception

Leuven Scale of Active Engagement in Learning:

Level	Engagement	Examples	Tick (✓)
1	Extremely low: <i>The child shows hardly any activity</i>	No concentration: staring, daydreaming; An absent, passive attitude; No goal-oriented activity, aimless actions, not producing anything; No signs of exploration and interest; Not taking anything in, no mental activity	
2	Low: <i>The child shows some degree of activity which is often interrupted</i>	Limited concentration; looks away during the activity, fiddles, dreams; Is easily distracted; Action only leads to limited results	
3	Moderate: <i>The child is busy the whole time, but without real concentration</i>	Routine actions, attention is superficial; Is not absorbed in the activity, activities are short lived; Limited motivation, no real dedication, does not feel challenged; The child does not gain deep-level experiences; Does not use his/her capabilities to full extent; The activity does not address the child's imagination	
4	High: <i>There are clear signs of involvement, but these are not always present to their full extent</i>	The child is engaged in the activity without interruption; Most of the time there is real concentration but during some brief moments the attention is more superficial; The child feels challenged, there is a certain degree of motivation; The child's capabilities and its imagination to a certain extent are addressed in the activity.	✓
5	Extremely High: <i>During the observation of learning the child is continually engaged in the activity and completely absorbed in it</i>	Is absolutely focussed, concentrated without interruption; Is highly motivated, feels strongly appealed by the activity Even strong stimuli cannot distract him/her; Is alert, has attention for details, shows precision; Its mental activity and experience are intense; The child constantly addresses all its capabilities: Imagination and mental capacity are in top gear; Obviously enjoys being engrossed in the activity.	

Additional Notes on lesson:	Engaged and taking part in lesson. Listening well and responding to questions. Enjoyed the ordering activity and the leap frog game
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Participant Number: 1

Understanding of the lesson objective and success criteria (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
			✓
Additional Notes:	Understood that the objective was to count to 10. and order numbers. Did not quite keep frog all the way to 10 on first attempt. same for second.		

Understanding of self-assessment (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
		✓	
Additional Notes:	Traffic light chosen - Orange. Understood that she did not make it through swamp so she chose the orange. Needed some prompting.		

Ongoing assent checklist (Tick one✓):

Unusual behaviour; Any uncharacteristic behaviour	Constant distraction; Child may look towards the door or other children and withdraw in distance from teacher	Look of discomfort; If the child looks awkward or uncomfortable in the research setting or what the lesson desires of them

If child exhibits any of the above behaviour, they will be asked whether they want to withdraw from the study immediately.

Participant Number: **2**Observational record

Name of teacher: JH	Name of observer: AD
Date of observation: 27-3-18	Length of session: 20 mins.
Subject: Maths - Counting	Year group: Reception

Leuven Scale of Active Engagement in Learning:

Level	Engagement	Examples	Tick (✓)
1	Extremely low: <i>The child shows hardly any activity</i>	No concentration: staring, daydreaming; An absent, passive attitude; No goal-oriented activity, aimless actions, not producing anything; No signs of exploration and interest; Not taking anything in, no mental activity	
2	Low: <i>The child shows some degree of activity which is often interrupted</i>	Limited concentration; looks away during the activity, fiddles, dreams; Is easily distracted; Action only leads to limited results	
3	Moderate: <i>The child is busy the whole time, but without real concentration</i>	Routine actions, attention is superficial; Is not absorbed in the activity, activities are short lived; Limited motivation, no real dedication, does not feel challenged; The child does not gain deep-level experiences; Does not use his/her capabilities to full extent; The activity does not address the child's imagination	
4	High: <i>There are clear signs of involvement, but these are not always present to their full extent</i>	The child is engaged in the activity without interruption; Most of the time there is real concentration but during some brief moments the attention is more superficial; The child feels challenged, there is a certain degree of motivation; The child's capabilities and its imagination to a certain extent are addressed in the activity.	/
5	Extremely High: <i>During the observation of learning the child is continually engaged in the activity and completely absorbed in it</i>	Is absolutely focussed, concentrated without interruption; Is highly motivated, feels strongly appealed by the activity Even strong stimuli cannot distract him/her; Is alert, has attention for details, shows precision; Its mental activity and experience are intense; The child constantly addresses all its capabilities: Imagination and mental capacity are in top gear; Obviously enjoys being engrossed in the activity.	

Additional Notes on lesson:	Excitable, enjoyed taking part in the lesson and was enthusiastic. However, '2' was so excitable that observer is not entirely convinced '2' was 'absorbed' in the task.
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Understanding of the lesson objective and success criteria (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
		✓	
Additional Notes:	Understood the objective; count to 20 ordering numbers. later confused the objective and said "count in 20s."		

Understanding of self-assessment (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
	✓		
Additional Notes:	Traffic light chaser - Orange. light chaser did not represent the level of work demonstrated. Supporting justification of colour choice echoed that of 2's peers ^{whose} ~~work~~ work was not of the same standard.		

Ongoing assent checklist (Tick one✓):

Unusual behaviour; Any uncharacteristic behaviour	Constant distraction; Child may look towards the door or other children and withdraw in distance from teacher	Look of discomfort; If the child looks awkward or uncomfortable in the research setting or what the lesson desires of them

If child exhibits any of the above behaviour, they will be asked whether they want to withdraw from the study immediately.

Observational record

Name of teacher: J.H	Name of observer: A.D
Date of observation: 27-3-18	Length of session: 20 mins
Subject: Maths - counting	Year group: Reception

Leuven Scale of Active Engagement in Learning:

Level	Engagement	Examples	Tick (✓)
1	Extremely low: <i>The child shows hardly any activity.</i>	No concentration: staring, daydreaming; An absent, passive attitude; No goal-oriented activity, aimless actions, not producing anything; No signs of exploration and interest; Not taking anything in, no mental activity	
2	Low: <i>The child shows some degree of activity which is often interrupted</i>	Limited concentration; looks away during the activity, fiddles, dreams; Is easily distracted; Action only leads to limited results	
3	Moderate: <i>The child is busy the whole time, but without real concentration</i>	Routine actions, attention is superficial; Is not absorbed in the activity, activities are short lived; Limited motivation, no real dedication, does not feel challenged; The child does not gain deep-level experiences; Does not use his/her capabilities to full extent; The activity does not address the child's imagination	
4	High: <i>There are clear signs of involvement, but these are not always present to their full extent</i>	The child is engaged in the activity without interruption; Most of the time there is real concentration but during some brief moments the attention is more superficial; The child feels challenged, there is a certain degree of motivation; The child's capabilities and its imagination to a certain extent are addressed in the activity.	✓
5	Extremely High: <i>During the observation of learning the child is continually engaged in the activity and completely absorbed in it</i>	Is absolutely focussed, concentrated without interruption; Is highly motivated, feels strongly appealed by the activity Even strong stimuli cannot distract him/her; Is alert, has attention for details, shows precision; Its mental activity and experience are intense; The child constantly addresses all its capabilities; Imagination and mental capacity are in top gear; Obviously enjoys being engrossed in the activity.	

Additional Notes on lesson:	Engaged in the activity, enjoyed the tasks: finding numbers and ordering and hilly-ped jumping. Minor distractions i.e. classmates
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Understanding of the lesson objective and success criteria (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
		✓	
Additional Notes:	Understood that the task was counting numbers to 20. Also, understood that she needed to walk through the hilly-ped in the correct manner. e.g. 1-2-3-4-5 etc.		

Understanding of self-assessment (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
✓			
Additional Notes:	Traffic light chosen - Red. Did not reflect her work. Orange would have been more suitable. Confused with the system. Wanted to choose the red because she liked the work.		

Ongoing assent checklist (Tick one✓):

Unusual behaviour; Any uncharacteristic behaviour	Constant distraction; Child may look towards the door or other children and withdraw in distance from teacher	Look of discomfort; If the child looks awkward or uncomfortable in the research setting or what the lesson desires of them

If child exhibits any of the above behaviour, they will be asked whether they want to withdraw from the study immediately.

Participant Number: 14Observational record

Name of teacher: <i>AD</i>	Name of observer: <i>JM</i>
Date of observation: <i>28.3.18</i>	Length of session: <i>30 minutes.</i>
Subject: <i>Maths - addition</i>	Year group: <i>2</i>

Leuven Scale of Active Engagement in Learning:

Level	Engagement	Examples	Tick (✓)
1	Extremely low: <i>The child shows hardly any activity</i>	No concentration: staring, daydreaming; An absent, passive attitude; No goal-oriented activity, aimless actions, not producing anything; No signs of exploration and interest; Not taking anything in, no mental activity	
2	Low: <i>The child shows some degree of activity which is often interrupted</i>	Limited concentration; looks away during the activity, fiddles, dreams; Is easily distracted; Action only leads to limited results	
3	Moderate: <i>The child is busy the whole time, but without real concentration</i>	Routine actions, attention is superficial; Is not absorbed in the activity, activities are short lived; Limited motivation, no real dedication, does not feel challenged; The child does not gain deep-level experiences; Does not use his/her capabilities to full extent; The activity does not address the child's imagination	
4	High: <i>There are clear signs of involvement, but these are not always present to their full extent</i>	The child is engaged in the activity without interruption; Most of the time there is real concentration but during some brief moments the attention is more superficial; The child feels challenged, there is a certain degree of motivation; The child's capabilities and its imagination to a certain extent are addressed in the activity.	
5	Extremely High: <i>During the observation of learning the child is continually engaged in the activity and completely absorbed in it</i>	Is absolutely focussed, concentrated without interruption; Is highly motivated, feels strongly appealed by the activity Even strong stimuli cannot distract him/her; Is alert, has attention for details, shows precision; Its mental activity and experience are intense; The child constantly addresses all its capabilities: Imagination and mental capacity are in top gear; Obviously enjoys being engrossed in the activity.	✓

Additional Notes on lesson:	<i>very enthusiastic about the task. Able to get on with the work without support and engaged well with the success criteria. Good understanding of the work and was able to finish first.</i>
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Participant Number:

4

Understanding of the lesson objective and success criteria (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
			✓
Additional Notes:	With help from the teacher was able to build a success criteria. Requested the use of a 100 square - "I like doing it with the square 100". This was then prompted to be used as a success criteria.		

Understanding of self-assessment (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
			✓
Additional Notes:	Understood the Self-assessment framework - Seemed to be 'wow-ed' by the traffic light. Used 'green' traffic light which is accurate to work produced. Able to also recall Success-Criteria to explain the justification for green light.		

Ongoing assent checklist (Tick one✓):

Unusual behaviour; Any uncharacteristic behaviour	Constant distraction; Child may look towards the door or other children and withdraw in distance from teacher	Look of discomfort; If the child looks awkward or uncomfortable in the research setting or what the lesson desires of them

If child exhibits any of the above behaviour, they will be asked whether they want to withdraw from the study immediately.

Observational record

Name of teacher: <u>AD</u>	Name of observer: <u>JH</u>
Date of observation: <u>28.3.18</u>	Length of session: <u>30 minutes</u>
Subject: <u>Maths - addition</u>	Year group: <u>2</u>

Leuven Scale of Active Engagement in Learning:

Level	Engagement	Examples	Tick (✓)
1	Extremely low: <i>The child shows hardly any activity</i>	No concentration: staring, daydreaming; An absent, passive attitude; No goal-oriented activity, aimless actions, not producing anything; No signs of exploration and interest; Not taking anything in, no mental activity	
2	Low: <i>The child shows some degree of activity which is often interrupted</i>	Limited concentration; looks away during the activity, fiddles, dreams; Is easily distracted; Action only leads to limited results	
3	Moderate: <i>The child is busy the whole time, but without real concentration</i>	Routine actions, attention is superficial; Is not absorbed in the activity, activities are short lived; Limited motivation, no real dedication, does not feel challenged; The child does not gain deep-level experiences; Does not use his/her capabilities to full extent; The activity does not address the child's imagination	
4	High: <i>There are clear signs of involvement, but these are not always present to their full extent</i>	The child is engaged in the activity without interruption; Most of the time there is real concentration but during some brief moments the attention is more superficial; The child feels challenged, there is a certain degree of motivation; The child's capabilities and its imagination to a certain extent are addressed in the activity.	
5	Extremely High: <i>During the observation of learning the child is continually engaged in the activity and completely absorbed in it</i>	Is absolutely focussed, concentrated without interruption; Is highly motivated, feels strongly appealed by the activity Even strong stimuli cannot distract him/her; Is alert, has attention for details, shows precision; Its mental activity and experience are intense; The child constantly addresses all its capabilities; Imagination and mental capacity are in top gear; Obviously enjoys being engrossed in the activity.	✓

Additional Notes on lesson:	<u>Required no support with the work and was able to carry out the lesson in silence, focused on the task in hand.</u> <u>Appeared to enjoy the easter egg theme while ~~communication~~ completing sums.</u>
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Participant Number: **5**

Understanding of the lesson objective and success criteria (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
			✓
Additional Notes:	Able to use the success criteria to explain the work that was done. Prompted to explain what 'type' of mathematics was being completed. (Addition).		

Understanding of self-assessment (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
			✓
Additional Notes:	Accurately self-assessed work. Understood the traffic light system. Was able to explain the reason for choosing 'green' traffic light, using the understanding of the method to justify the self-assessment. Very good understanding.		

Ongoing assent checklist (Tick one✓):

Unusual behaviour; Any uncharacteristic behaviour	Constant distraction; Child may look towards the door or other children and withdraw in distance from teacher	Look of discomfort; If the child looks awkward or uncomfortable in the research setting or what the lesson desires of them

If child exhibits any of the above behaviour, they will be asked whether they want to withdraw from the study immediately.

Observational record

Name of teacher: <i>AD.</i>	Name of observer: <i>JH.</i>
Date of observation: <i>28.3.18</i>	Length of session: <i>30 minutes</i>
Subject: <i>Maths - addition.</i>	Year group: <i>2</i>

Leuven Scale of Active Engagement in Learning:

Level	Engagement	Examples	Tick (✓)
1	Extremely low: <i>The child shows hardly any activity</i>	No concentration: staring, daydreaming; An absent, passive attitude; No goal-oriented activity, aimless actions, not producing anything; No signs of exploration and interest; Not taking anything in, no mental activity	
2	Low: <i>The child shows some degree of activity which is often interrupted</i>	Limited concentration; looks away during the activity, fiddles, dreams; Is easily distracted; Action only leads to limited results	
3	Moderate: <i>The child is busy the whole time, but without real concentration</i>	Routine actions, attention is superficial; Is not absorbed in the activity, activities are short lived; Limited motivation, no real dedication, does not feel challenged; The child does not gain deep-level experiences; Does not use his/her capabilities to full extent; The activity does not address the child's imagination	
4	High: <i>There are clear signs of involvement, but these are not always present to their full extent</i>	The child is engaged in the activity without interruption; Most of the time there is real concentration but during some brief moments the attention is more superficial; The child feels challenged, there is a certain degree of motivation; The child's capabilities and its imagination to a certain extent are addressed in the activity.	
5	Extremely High: <i>During the observation of learning the child is continually engaged in the activity and completely absorbed in it</i>	Is absolutely focussed, concentrated without interruption; Is highly motivated, feels strongly appealed by the activity Even strong stimuli cannot distract him/her; Is alert, has attention for details, shows precision; Its mental activity and experience are intense; The child constantly addresses all its capabilities; Imagination and mental capacity are in top gear; Obviously enjoys being engrossed in the activity.	✓

Additional Notes on lesson:	<i>Good engagement with the work and was able to understand what was required in order to be successful.</i>
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Understanding of the lesson objective and success criteria (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
			✓
Additional Notes:	Was able to aid the teacher in building the success criteria without any prompts. Suggested Column addition as a method that could be part of the success criteria. Clearly understood the structure of a success criteria.		

Understanding of self-assessment (Tick one✓):

Unsatisfactory	Adequate	Good	Excellent
			✓
Additional Notes:	Good understanding of self-assessment - concrete / visual traffic light was not really needed for this child. Gave themselves 'green' which was accurately reflected in the work. Good explanation related to the success criteria - "I used Column addition, then looked, made sure my work with the number square".		

Ongoing assent checklist (Tick one✓):

Unusual behaviour; Any uncharacteristic behaviour	Constant distraction; Child may look towards the door or other children and withdraw in distance from teacher	Look of discomfort; If the child looks awkward or uncomfortable in the research setting or what the lesson desires of them

If child exhibits any of the above behaviour, they will be asked whether they want to withdraw from the study immediately.



