

A critical analysis of the relationship
between teacher subject knowledge and
effective learning and teaching in the
primary school.

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INTRODUCTION

Teacher's subject knowledge has confirmed an increase of acknowledgment by being significantly important throughout children's education. (Coe et al, 2014, p.2) states that a "teacher's subject knowledge, and their understanding of how pupils handle this subject, has strong evidence of impact on student outcomes." Although Coe et al (2014) explains that teacher's subject knowledge has a positive effect on children's learning, it may also have a negative effect on their learning. Supposing a teacher allows their knowledge fall below a specific point, then it will have a consequential hindrance on their student's education. However, in addition to having a strong understanding of the knowledge being taught, the most effective teacher needs to understand the way students consider the information and have the ability to evaluate the students thinking and methods.

For the purpose of this essay I have focused on 'subject knowledge' and 'pedagogical content knowledge' throughout the literature review, whilst comparing a variety of literature in comparison to Shulman and Rowland. To respond to the analysis and evaluation section, I have followed aspects of subject knowledge as identified by Rowland et al., (2003), 'The Knowledge Quartet'.

Throughout this assignment, I will refer to the primary school as 'Placement A', I have taken away the school's name to ensure anonymity. Names of the teachers, pupils and the school will all remain confidential throughout my assignment. Throughout my PTE1 I was based in the reception class, with children aged between 4 and 5 years. 'Placement A' is an English medium school with 429 pupils currently attending, aged between 3-11 years old. In their latest Estyn report in

the year 2012, the school received 'good' for their current performance and 'excellent' for their prospects for improvement.

A CONSIDERATION OF THE LITERATURE

Shulman (1986) informs us subject matter knowledge in teachers require the capability to not only define the 'accepted truths in a domain', but also have the ability to explain why it is, why it is meaningful and how it associates with other concepts. Shulman (1987) believed there were seven categories of knowledge which stimulates teacher understanding in order to promote understanding amongst children:

“Content knowledge; general pedagogical knowledge; curriculum knowledge; pedagogical content knowledge; knowledge of learners and their characteristics; knowledge of educational contexts; knowledge of educational ends, purposes, and values, and their philosophical and historical backgrounds.” (Shulman, 1987, p.8)

Shulman (1986, p.9) defines subject matter knowledge as “knowledge of content of the discipline per se” which contains two types of knowledge; substantive and syntactic knowledge, as identified by Schwab in 1964. Rowland and Turner (2007) explain that substantive knowledge contains the “key facts, concepts, principles and explanatory frameworks in a discipline” whereas the syntactic knowledge contains the “nature of enquiry in the field, and how new knowledge is introduced and accepted in that community.” (Rowland and Turner, 2007, p.107)

Alongside Schwab's (1964) dissimilarity amongst both substantive and syntactic knowledge, Bloom's cognitive taxonomy also aids teachers as they represent subject content knowledge. The original taxonomy (1956)

entailed six categories: 'knowledge, comprehension, application, synthesis and evaluation'. Bloom explained that all categories placed after knowledge were perceived as 'skills and abilities', helping us understand that knowledge was the requirement for implementing skills and abilities within the classroom. Meanwhile, a more recent version of Blooms 'Original Cognitive Taxonomy' has been published, 'The Revised Taxonomy' (2001) which has introduced six new 'action words' describing the cognitive processes in which learners will work with knowledge: 'remember, understand, apply, analyse, evaluate and create' (Armstrong, 2019, online).

To ensure effective teaching Shulman (1986) believes that:

"The teacher need not only understand that something is so; the teacher must further understand why it is so, on what grounds its warrant can be asserted, and under what circumstances our belief in its justification can be weakened and even denied. Moreover, we expect the teacher to understand why a given topic is particularly central to a discipline whereas another may be somewhat peripheral." (Shulman, 1986, p.9)

This telling us that teachers' not only need an in-depth understanding of the subjects taught at school, but also the capability of extending their knowledge in order to progress the children's learning. Nevertheless, Hattie (2012) disagreed with Shulman (1986) as he identified that subject matter knowledge was only a minor reflection in children's educational achievement.

Shulman (1987) highlighted the alteration of teacher subject knowledge into the pedagogical content knowledge. According to Shulman (1987), Campton and Stephenson (2014, p.14) the definition of pedagogical

content knowledge is “the bridge between the teacher’s knowledge and enabling students to know it.” Shulman views the pedagogical content knowledge in a way where the subject can be represented to others in a comprehensible way. In agreement with Shulman is Donaldson as he explains in chapter 5 of *Successful Futures* (2015) that:

“Pedagogy is about more than ‘teaching’ in the narrow sense of methods used in the classroom. It represents the considered selection of those methods in light of the purpose of the curriculum and the needs and developmental stage of the children and young people. It combines theoretical and practical knowledge and skills with fine judgment about what is required to promote effective learning in particular contexts. It lies at the heart of what is means to be an excellent teacher.” (Donaldson, 2015, p.63)

However, Rowland and Turner (2007, p.107) explain that pedagogical content knowledge is difficult to explain, visualising the similarities and connection between “knowing something for oneself and being able to enable others to know it.” Pedagogical content knowledge interprets different ways of representing the knowledge which makes it understandable to others. According to researchers and practitioners, pedagogical content knowledge is acknowledged extensively as an important factor for improving children’s knowledge and achievement. Shulman strongly believes that to ensure pedagogical content knowledge and effective teaching, it is essential that teachers deliver powerful subject taught lessons in the form of: examples, illustrations, demonstrations and explanations, ways in which the teacher will deliver the subject to make it more understandable for the children.

In comparison to Shulman's (1986) feature between subject matter knowledge and pedagogical knowledge, the knowledge quartet identifies a variety of situations where knowledge can be seen in teaching. The commencement of the knowledge quartet was acknowledged by T. Rowland, P. Huckstep and A. Thwaites in the year 2003. The knowledge quartet is "comprehensive as a tool for thinking about the ways that subject knowledge comes into play in the classroom" (Rowland et al., 2003, p. 97) which commenced in observations of teaching mathematics in the primary setting, and can be seen in four dimensions;

Foundation:

The foundation category contains the knowledge, beliefs and understanding established in the trainee's profession, preparing them for their teaching role within the classroom. Rowland et al., (2003) states that:

"Such beliefs typically concern different philosophical positions regarding the nature of mathematical knowledge, the purposes of mathematics education, and the conditions under which pupils will best learn mathematics." (Rowland et al., 2003, p. 97 & 98)

Rowland et al., (2009) inform us that it is important that teachers distinguish factors which are important when delivering a mathematics lesson. This coincides with one feature from the mathematical knowledge for teaching; the intention of teachers purpose with the theoretical foundation is to conduct instructional decisions, instead of depending on other teachers.

Transformation:

The transformation category concerns the knowledge-in-action through planning and teaching. Shulman (1987) believes that the knowledge base for learning is eminent by the way the teachers are able to transform the content knowledge processed into pedagogically forms, such as: illustrations, explanations, analogies, examples and demonstrations.

Connection

The connection category relates to the consistency of the planning and teaching shown during a lesson or multiple lessons. Rowland et al., (2003) explains that the connection should consist of a series of topics within and between each lesson, which include:

“The ordering of tasks and exercises which reflect deliberations and choices entailing both knowledge of structural connections within mathematics and an awareness of the relative cognitive demands of different topics and tasks.” (Rowland et al., 2003, p. 98)

Contingency

The contingency category concerns different classroom events which you are unable to plan for, for example, having the ability to respond to children's questions and ideas. A constructivist's outlook on learning provides important viewpoints on children's contributions during lessons. To simply ignore children's ideas or call them 'wrong', can be revealed as having very little interest in what they have to say / what they feel they have learnt. However, according to (Brown and Wragg, 1993, p.20) “our capacity to listen diminishes with anxiety”, this telling us that a

teacher's uncertainty about subject knowledge may be caused by anxiety. Anning and Edwards (1999) support the contingency category as they believe that the deeper a teacher's subject knowledge is, the more likely they will be confident in listening to children's interests, contributions, ideas and questions.

Whilst teacher knowledge plays a vital role in teacher expertise, it involves more than just knowledge. Skills and attitudes also effect the teaching and learning aspect. Studies have shown that in early years learning, sociocultural mechanisms of learning are highly important aspects when building children's knowledge. Cullen (1999) argue that:

“The professional knowledge base of early childhood teachers should incorporate greater awareness of subject content knowledge.”
(Cullen, 1999, p.13)

However, in disagreement with Cullen (1999), Hattie's (2012) visible learning informs us that teachers subject knowledge has little attainment on children's achievements. Hattie (2012) believes that it is more about:

“How teachers see the surface and the deeper understandings of the subjects that they teach, as well as their beliefs about how to teach and understand when students are learning and have learned the subject.” (Hattie, 2012, p.28)

In agreeance with Hattie (2012), it is vital that teachers not only have the subject knowledge and know how to deliver a lesson, but also knowing when the children have succeeded in the subject and how to move their learning forward in order to progress their education has a significant role in the profession.

A considerable amount of research has stated that the early years appears to be divided on the beliefs about subject knowledge. Curtis (1998); Corrie (1999) and Nutbrown (1999) argue that a:

“Subject-based approach to curriculum is a contrary to the ways children think and learn and invites inappropriate, formal, ‘push-down’ pedagogically oriented approaches.” (Curtis, 1998; Corrie, 1999; Nutbrown, 1999)

However, Wylie et al (2004) disagrees with the above statement and believes that subject-based results are seen as necessary, arguing that subject knowledge plays a vital role in supporting the children’s learning. In agreement with Wylie et al (2004), other research proposes that teachers who are confident when delivering their subject knowledge have more of a possibility to identify and take full advantage of children’s potential learning, Anning and Edwards (1999).

Hattie (2009) and McCaffrey et al., (2004) explain that depending on the quality of lessons delivered by teachers will affect the children’s learning and motivation throughout their education. Teacher’s content knowledge and pedagogical content knowledge have both proven to affect children’s learning, especially in the area of mathematics, Baumert et al., (2010); Hill et al., (2005). Due to the importance of teacher knowledge in children’s learning progress, teacher education is seen as an important aim of educational improvement. One of the foremost demands that arise within teacher education is the assessment of teacher knowledge.

Ofsted (2009) informs us that subject knowledge helps improve the standard of teaching whilst inspiring pupils and helping them achieve the best possible results, explaining why subject leadership in primary schools is harder to improve:

“Having a teacher with specific subject knowledge was often a matter of chance, although the effective primary schools knew this and took steps to minimise the risk of its absence. They also found ways to identify and tackle weaknesses in teachers' subject knowledge, such as through links with partner schools, using advanced skills teachers or other experts, or securing focused professional development. The role of the subject leader was vital in developing and maintaining high quality teaching in individual subjects but too many subject leaders had too limited a role and too little support to carry it out effectively.” (Ofsted, 2009, p.5)

ANALYSIS AND EVALUATION OF YOUR SUBJECT KNOWLEDGE FOR PRIMARY TEACHING

Throughout my PTE1 I had the privilege of working in the reception class, teaching children aged between 4 and 5 years. I felt very fortunate, as for the past three years I have been working as a teaching assistant within a reception class, therefore feeling rather confident with my level of subject knowledge for that age. During my time in the ‘Placement A’, it was clear to see that the new curriculum as proposed by Professor Graham Donaldson was progressively being developed throughout the school, this was noticeable throughout my time in the reception class. Recommendation 3 in Successful Futures (2015) informs us that the new curriculum should have 4 purposes:

“The purposes of the curriculum in Wales should be that children and young people develop as:

- 1) Ambitious, capable learners, ready to learn throughout their lives

- 2) Enterprising, creative contributors, ready to play a full part in life and work
- 3) Ethical, informed citizens of Wales and the world
- 4) Healthy, confident individuals, ready to lead fulfilling lives as valued members of society” (Donaldson, 2015, p.29)

Donaldson’s new curriculum is aimed to develop confidence and capacity in children. Depending how teachers educate children will have a strong effect on the development of children’s confidence and capacity. Taking into consideration the new curriculum, I was mindful of the cross-curriculum responsibilities; literacy, numeracy and digital competence, making myself aware by including these responsibilities into as much of my planning as I could. Donaldson explains that the intention requires more creativity and energy from teachers, in order to deliver rich learning opportunities for children.

The requirement for outstanding subject knowledge is equally as important in early years learning as it is in other phases. However, some would argue that having strong subject knowledge in the early years is more important, especially when early mathematical concepts are formed:

“If teaching involves helping others to learn then understanding the mathematics subject content to be taught is a fundamental requirement of teaching” (Aubrey, 1997, p.3)

The activities I will be discussing today are regarding a mathematical, P.E, welsh and topic / literacy lesson. The knowledge quartet was taken into consideration throughout the planning of all my lessons.

Foundation

The foundation category notifies pedagogical choices and strategies in an essential way. In order to apply the foundation strategy I considered the pupil voice, where the children voiced out that they wanted to have more outdoor learning and to learn about owls. This coincides with Donaldson as he suggests that children need to become more involved during the planning of their learning, through discussions on their current ability levels and how they can obtain enough support to achieve the best future objectives.

The lessons I will be discussing as part of the foundation category are regarding two mathematical lessons, 'one more than' and 'one less than' (See figure 1.1 and figure 1.2) The focus task during both lessons entailed the children throwing a beanbag onto a number on the written number line provided on the yard, orally saying the number, hopping to it, working out the number that is 'one less than' or 'one more than' the given number and jumping to it. During the 'one less than' focus task, I had one group of children who really struggled with this particular task and could not agree with each other. This group of children found the activity difficult as they would automatically add 'one more than' instead of going back one number. This was due to me not applying certain forms of pedagogical methods and not explaining the aim of the focus task in the way the children were able to understand. During the introduction I used different terminology in support of 'one less than' allowing the children to understand the activities better, however, during the main focus task I mainly used the term 'one less than' which caused slight difficulty for one learning group. Walker (2006) defines pedagogy through explaining that it is all about teaching and who is being taught. Whereas (Stierer and Antoniou, 2004, p. 277) believes that it is the

“processes and relationships of learning and teaching”. Due to only using one term throughout the focus task, I did not consider the relationship between the teaching and learning. Khan (2000) has created a list of different methods and strategies which are developed under his pedagogical section in his ‘eight-component framework for e-learning’, unfortunately due to various reasons I was unable to use these certain methods in order to apply successful pedagogical methods throughout my lesson. During this particular lesson, according to Khan (2000) what I needed to incorporate in order to ensure effective pedagogical methods were; demonstration, discussion, modelling and debating.

In comparison to the ‘one more than’ lesson during the previous week, I had not managed my time effectively, therefore was unable to include these types of methods. However, during the previous week, my feelings regarding the lesson were more positive. I managed to include all of the methods above, providing the children with a clear demonstration of what was needed, a discussion involving the different terms for ‘one more than’, debating the answers the children were providing and modelling how I wanted the children to complete the focus task at the beginning of the activity. This activity coincides with (Ball et al., 2008, p.399) as they explain that content knowledge “must be able to do the work that they assign to their students.” During this activity I successfully used all correct terminology and notations and identified when students answered questions incorrectly.

Transformation

The lesson which I will be discussing as part of the transformation category will be a P.E lesson which I taught in the second week of PTE1

(see figure 1.3) By the end of the lesson, the children had successfully completed; making their body roll in different ways, perform a range of different rolls and join a range of movements to create a short sequence. (Shulman, 1987, p.15) explains that to accomplish the transformation category, teaching is renowned for “the capacity of a teacher to transform the content knowledge he or she possesses into forms that are pedagogically powerful.” This was achieved through examples, explanations and demonstrations. I supplied each station with a visual card, including the step by step of each roll, this gave the children a clear example of how they needed to complete each roll / jump. Throughout the introduction, the children had the opportunity to go around each station, giving examples of when they would have performed these rolls / jumps before, or where they would have seen them previously. Explanations of each roll, jump and sequence were explained in the introduction and throughout the lesson, if children were finding them difficult. The P.E lessons which I taught during my time in ‘Placement A’ all followed up from the first week, making it slightly more difficult each week. I noticed that the explanations for each roll and jump were not occurring as often during the last few weeks, this due to the children remembering them from previous weeks, this I felt was a positive aspect of my teaching. Demonstrations occurred throughout the lesson. During the introduction I would go around each station modelling the roll, jump and sequence for the children. In order to get the children involved throughout the demonstrations, I asked for volunteers to help me model the different rolls and jumps to the other children.

Connection

The connection category relates to the consistency of the planning and teaching presented across the lesson or series of lessons by building on

children's prior knowledge. The lesson which I will be discussing as part of the connection theory will be the first Welsh lesson that I taught during my time in 'Placement A' (see figure 1.4) As recommended by Professor Graham Donaldson in *Successful Futures* (2015), the Welsh language was used throughout all my lessons and on a daily basis. Recommendation 22 in *Successful Futures* states that:

“There should be a renewed focus in schools on learning Welsh primarily as a means of communication, particularly oral communication and understanding” (Donaldson, 2015, p.60)

The Welsh language was being used on a daily basis throughout the day, between all teachers and students. In comparison to my first day in 'Placement A', it was noticeable to see how much more confident the children were becoming when using the Welsh language.

The lesson commenced with a Welsh powerpoint story called 'Cuddio' on the interactive whiteboard. The context of this story was about Will the squirrel and his friends playing hide and seek. After the completion of every slide, I made sure I translated every word, asking if the children understood what the words meant and what was happening during each slide. Before commencing the focus task, we had a recap of all the language used throughout the story – “Ble mae ...” (where is), “Dyma ...” (here is) “Dyma fi” (here I am). I explained to the children that our lesson was going to entail a game of hide and seek in Welsh, using the language from the story.

Coinciding with Rowland et al., (2003) as he explains that the connection should consist of a series of topics within and between each lesson, I had been introducing the Welsh language to the children on a daily basis leading up to the first Welsh lesson. Activities included asking them to

listen to a variety of vocabulary, repeating the words after me, and constantly checking whether they understood the terminology / explaining and translating the vocabulary. In order for the language to be progressed and understood, the story 'Cuddio' would be re-introduced to the children at the beginning of every Welsh lesson, as a follow up from the first lesson. Hopeful that the children would remember the terminology and were able to tell me where the animals were hiding / who was hiding where, using the Welsh language. The same terminology from the story 'Cuddio' was used throughout the different activities during the Welsh lessons, this I strongly believed helped influenced the children on their progress and understanding of the language. In comparison to the first Welsh lesson, it was noticeable to see how much more confident the children were becoming when using the Welsh language.

Contingency

The lesson I will be discussing as part of the contingency category is a topic / literacy lesson where the children had to recall facts about owls, following my in-school owl visit (see figure 1.5) Previously that week I had introduced the story 'Owl Babies' and delivered a lesson on what the children know about owls following the story. Considering our topic was 'what happens when I fall asleep' and knowing the children wanted to learn about owls after the pupil voice lesson, I had organised for West Wales Falconry to visit our school the morning before the lesson.

Unfortunately, the lesson did not go as well as I anticipated. When the children were asked to recall facts from the owl visit, they would only recall facts from the story 'Owl Babies' which was read to them at the beginning of the week. Due to me expecting to receive facts from the owl visit I was unsure of how to respond as I did not want the children feeling

disappointed. When asked to recall facts from the owl visit, the children were unsure of how to respond, especially as they felt like they had answered the question asked, only they were recalling facts from the story. Rowland et al., (2003) explains that:

“To put aside such indications, or simply to ignore them or dismiss them as ‘wrong’, can be construed as a lack of interest in what it is that that child (and possibly others) have come to know as a consequence, in part, of the teacher’s teaching.” . (Rowland et al., 2003, p. 98)

Reflecting on this statement, I was afraid of dismissing them as ‘wrong’, as theoretically the children were not wrong at all.

CONCLUSION

After considering the children’s reactions to my instructions throughout the mathematics lesson, ‘one less than’, I need to consider using the correct pedagogical methods in order to progress my next steps for future learning. The children found this activity fairly difficult due to me not applying certain forms of pedagogical methods and not explaining the aim of the focus task in the way the children were able to understand.

Evidence from the literature confirms that a teacher’s subject knowledge is extremely important and vital throughout children’s education.

However, whether teachers are subject specialists or not, they also need a wide range of skills and attitudes to support the children on achieving the best possible outcomes throughout their education. These skills should include; relationships with the children, subject matter knowledge

and an understanding of the pedagogical processes which are required to develop the understanding in subjects. Without these skills and knowledge, it is highly questionable whether the teacher will deliver effective teaching and learning.

No matter how much knowledge a teacher encompasses , the delivery of that knowledge will not be successful if it's not delivered correctly to the appropriate abilities of the children. Hill et al., (2005) agree with this statement as they propose that it is not the content knowledge but more the knowledge of how you deliver the subject which is influential to the children.

Appendices

Figure 1.1

Name of Trainee: Bryanie Allsworth Targed(au) Hyfforddi Personol: S3.3.6 (PT) S2.4 & S2.5			Session ref: 1:00pm – 3:00pm Date: 19/11/2018 Class: Reception		Cynllun Ffocws y Cynnod Sylfaen 2d	
Number of learners: 26 Age: 4 – 5 years						
Learning objectives/intentions: Say the number that is one more than the given number	Success Criteria • I can say the number that is one more than the given number • I can count one more than from numbers 1 – 15 (top groups) • I can count one more than from numbers 1-10 (bottom groups)	Meeting learners' needs: Group Côch a Orŷn = Numbers up to 15 Group Pôffor a Glôs = Numbers up to 10		Assessment for Learning (strategies and opportunities) Questioning techniques: Open ended questions during the introduction and the main activities, e.g. • What is one more than 6? How do you know? • What is one more than 12? How do you know? • Assess the children's understanding in the introduction through questions and answers • The use of the activity in the plenary will allow assessment for understanding • The use of the activity in the main activities will allow assessment for understanding in smaller groups		
Introduction/plenary tasks		Main activities		Resources/Key Vocabulary Numbers in English Rhifau yn Gymraeg One more than Add Counting stick 'One more than' powerpoint Numerals Number line Counting teddies / counting objects Beanbags Chalk Number stick Owls 1-10 Numicon Numerals		
Introduction (Whole class) (15 minutes) (Choose 10 children to hold the owls). Using the number owls 1-10, can the children order them from the smallest to the biggest? Once they are all ordered, ask the children different questions about numbers that are 'one more than' e.g. 'What is one more than 6?' (One child to answer at a time – if the child is struggling, as him / her to ask a friend to help). Explain that 'one more than' also means the number that comes after the given number. Show them the 'one more than' powerpoint (can the children count 5 owls? What is one more than 5?) Powerpoint uses a number line to place the owls on.		Trainee focused task (purpose, outline of trainee's role and children's learning): (1 hour 40 minutes) Activity outside - Draw a number line on the school yard, using chalk. Group Côch a Orŷn = Number line up to 15. Ask each child individually to throw a beanbag to a number, if the number is 12, they need to hop all the way to it, orally saying the number as they land on it. Ask the children to jump to the number that is one more than that number, orally saying the number as they land on it. (Use the words 'one more than', but if the children are struggling with the terminology, use the sentence 'what number comes after that number'. Group Pôffor a Glôs = Number line up to 10. Ask each child individually to throw a beanbag to a number, if the number is 7, they need to hop all the way to it, orally saying the number as they land on it. Ask the children to jump to the number that is one more than that number, orally saying the number as they land on it. (Use the words 'one more than', but if the children are struggling with the terminology, use the sentence 'what number comes after that number'. Additional adult tasks (purpose, outline of additional adults' role and children's learning): Using counting teddies (if no teddies, use the counting objects available in the classroom) Group Côch a Orŷn = (work individually, or if there isn't enough objects, work in pairs) Give each child / pair up to 15 counting teddies. Ask the children to listen carefully to the instructions – ask them different questions about 'one more than'. E.g. 'Can you put 10 teddies in a line? What is one more than 10?' – Get them to add one more teddy to the line. Group Pôffor a Glôs = (work individually, or if there isn't enough objects, work in pairs) Give each child / pair up to 10 counting teddies. Ask the children to listen carefully to the instructions – ask them different questions about 'one more than'. E.g. 'Can you put 7 teddies in a line? What is one more than 7?' – Get them to add one more teddy to the line. Photograph the activities using the classroom iPad		TRANEES – GIVE FEEDBACK AT THE END OF EACH LESSON / GROUP : BEHAVIOUR, SUCCESS CRITERIA, HOW THEY HAVE HANDLED THE LEARNING OBJECTIVES. Independent learning opportunities: 1 more than using numicon; place numicon 1-10 on the table, children have to place the numicon that is one more than the numicon (on the table already) underneath it. Number line used for support (pair work)		
Plenary (Whole class) (5 minutes) Ask the children what they have learned from each activity. Do they know what 'one more than' means? Test the children – ask random children what 'one more than' is (number stick may be used to support them when answering).						

Figure 1.2

Name of Trainee: <u>Bryonie Allsworth</u> Session ref: <u>10:30am – 11:30am</u> Date: <u>25/11/2018</u> Class: <u>Reception</u>		Cynllun Ffocws y Cyfnod Sylfaen	
Targed(au) Hyfforddi Personol <u>83.8 (PT), 82.4, 82.5</u>		2d	
Number of learners: <u>25</u>		Age: <u>4 – 5 years</u>	
Learning objectives/intentions: Say the number that is one less than the given number	Success Criteria	Meeting learners' needs:	Group Côch a Gŵyr Numbers up to 15 Group Pôrffor a Gŵyr Numbers up to 10
Introduction/plenary tasks	Main activities		
Introduction (Whole class) (15 minutes) Remind the children of last week's session (one more than). This week we will be looking at one less than. (Choose 10 children to hold the ovals). Using the number ovals 1-10, can the children order them from the smallest to the biggest? Once they are all ordered, ask the children different questions about numbers that are 'one less than' e.g. 'What is one less than 6?' (One child to answer at a time – if the child is struggling, ask him / her to ask a friend to help). Explain that 'one less than' also means the number that comes before the given number. Show them the 'one less than' powerpoint (can the children count 5 ovals? What is one less than 5?) Powerpoint uses a number line to place the ovals on.	Trainee focused task (purpose, outline of trainee's role and children's learning): (1 hour 40 minutes) Activity outside - Draw a number line on the school yard, using chalk. Group Côch a Gŵyr Number line up to 15. Ask each child individually to throw a beanbag to a number, if the number is 12, they need to hop all the way to it, orally saying the number as they land on it. Ask the children to jump to the number that is one less than that number, orally saying the number as they land on it. (Use the words 'one less than', but if the children are struggling with the terminology, use the sentence 'what number comes before that number'. Group Pôrffor a Gŵyr Number line up to 10. Ask each child individually to throw a beanbag to a number, if the number is 7, they need to hop all the way to it, orally saying the number as they land on it. Ask the children to jump to the number that is one less than that number, orally saying the number as they land on it. (Use the words 'one less than', but if the children are struggling with the terminology, use the sentence 'what number comes before that number'. Additional adult tasks (purpose, outline of additional adults' role and children's learning): Using counting teddies (if no teddies, use the counting objects available in the classroom) Group Côch a Gŵyr (work individually, or if there isn't enough objects, work in pairs) Give each child / pair up to 15 counting teddies. Ask the children to listen carefully to the instructions – ask them different questions about 'one less than'. E.g. "Can you put 7 teddies in a line? What is one less than 10?" – Get them to take away one teddy from their line. Group Pôrffor a Gŵyr (work individually, or if there isn't enough objects, work in pairs) Give each child / pair up to 10 counting teddies. Ask the children to listen carefully to the instructions – ask them different questions about 'one less than'. E.g. "Can you put 7 teddies in a line? What is one less than 7?" – Get them to take away one teddy from their line. Photograph the activities using the classroom iPad TRAINEE – GIVE FEEDBACK AT THE END OF EACH LESSON / GROUP ; BEHAVIOUR, SUCCESS CRITERIA, HOW THEY HAVE HANDLED THE LEARNING OBJECTIVES. Independent learning opportunities: 1 less than using numicon: place numicon 1-10 on the table, children have to place the numicon that is one less than the numicon (on the table already) underneath it. Number line used for support (pair work).		
Plenary (Whole class) (5 minutes) Ask the children what they have learned from each activity. Do they know what 'one less than' means? Test the children – ask random children what 'one less than' is (number stick may be used to support them when answering).	Resources/Key Vocabulary Numbers in English Rhifau yn Gymraeg One less than Take away Subtract Counting stick 'One less than' powerpoint Numerals Number line Counting teddies / counting objects Beanbags Chalk Number stick Ovals 1-10 Numicon Numerals		
Curriculum coverage (range and skills)	Assessment for Learning (strategies and opportunities) Questioning techniques: Open ended questions during the introduction and the main activities e.g. - What is one less than 6? How do you know? - What is one less than 12? How do you know? - Assess the children's understanding in the introduction through questions and answers - The use of the activity in the plenary will allow assessment for understanding - The use of the activity in the main activities will allow assessment for understanding in smaller groups		

Figure 1.3

Name of Trainee: <u>Bryonie Allworth</u>		Session ref: <u>9.30am – 10.20am</u>		Date: <u>13/11/2018</u>		Class: <u>Reception</u>		Cynllun Ffocws y Cyfnod Sylfaen <u>2d</u>	
Targeted(au) Hyfforddi Personol <u>83.2.2(PTL) & 83.1.1 & 83.1.4 & 83.3.8</u>		Number of learners: <u>26</u>		Age: <u>4 – 5 years</u>					
Learning objectives/intentions: <u>I can control my body when rolling in a range of ways</u>		Success Criteria		Main activities		Resources/Key Vocabulary		Assessment for Learning (strategies and opportunities)	
Introduction/plenary tasks		Trainee focused task (purpose, outline of trainee's role and children's learning) (35 minutes) <u>Grŵp Coch</u> Focus on the 'teddy bear roll'. Allow the children enough time to complete the roll a few times, making sure they keep their legs straight, holding their ankles throughout. Move on from last week – Ask the children to roll back onto one of their shoulders, then across to the other one. By the end – can the children start with a half-turn jump, into the teddy bear roll, followed by the dish roll? (forming a 3-movement sequence) <u>Grŵp Oren</u> Focus on the 'dish roll'. Allow the children enough time to complete the roll a few times, making sure that they keep their legs and arms slightly off the floor. By the end – can the children start with a tuck jump, into the dish roll, followed by the pencil roll? (forming a 3-movement sequence) <u>Grŵp Porffor</u> Focus on the 'egg roll'. Allow the children enough time to complete the roll a few times, making sure that they keep hold of their knees when rolling from side to side. By the end – can the children start with a star jump, into the egg roll, followed by the dish roll? (forming a 3-movement sequence) <u>Grŵp Glas</u> Focus on the 'pencil roll'. Allow the children enough time to complete the roll a few times, making sure that they keep the straight pencil shape throughout the roll. By the end – can the children start with a straight jump, into the pencil roll, followed by the dish roll? (forming a 3-movement sequence). Additional adult tasks (purpose, outline of additional adults' role and children's learning): Work with the least confident groups, supporting them with their rolls and guiding them as they join a range of movements to create a short 3-movement sequence. TRAINEE – GIVE FEEDBACK AT THE END OF EACH LESSON / GROUP : BEHAVIOUR, SUCCESS CRITERIA, HOW THEY HAVE HANDLED THE LEARNING OBJECTIVES. Independent learning opportunities: Completing the rolls without support from the teachers.]		Coch Melyn Gwyrd Stop Ceddod Rhedeg Balance Roll Egg roll Pencil roll Dish roll Teddy bear roll Floor mats Support cards Red cone Yellow cone Green cone		Questioning techniques: Open ended questions during the introduction and the main activities, e.g. Which is your favourite type of roll? Why do you like this roll? How would you make your body roll like an egg/ pencil/ dish/ teddy/roll on back Which do you think is the easiest / hardest roll to complete? Can you explain to your friend how to complete the different types of rolls? Asking children to demonstrate the rolls in the introduction will allow assessment for understanding in the main activities			
Curriculum coverage (range and skills) • Coordination • Balance • Agility									

Figure 1.4

Name of Trainee: <u>Brynle Allsworth</u>		Session ref: <u>1:00pm – 3:00pm</u>		Date: <u>15/11/2018</u>		Class: <u>Reception</u>		Cynllun Ffocws y Cyfnod Sylfaen 2d	
Targedau Hyfforddi Personol <u>83.2.2 (PT) 5, 83.3.10 & 83.3.5</u>		Number of learners: <u>25</u>		Age: <u>4 - 5 years</u>					
Learning objectives/intentions: Play hide and seek in Welsh		Success Criteria * I can respond to the question "Ble mae ...?" with "Dyma fi"		Main activities Trainee focused task (purpose, outline of trainee's role and children's learning): (1 hour 40 minutes) Aim of this task = Play hide and seek in Welsh (model the language by hiding first, ask a child to find you) Take one learning group at a time to the outside area. Explain to the children that we will be playing hide and seek in Welsh. Ask one child to go and hide somewhere around the yard / field. Once that child has hidden, ask one other child to go around trying to find him / her – saying "Ble mae ...?" Once child 1 has been found, child 2 needs to shout "Dyma fi" encouraging child one to repeat and shout "Dyma fi". Repeat this game until every child has had a turn in hiding and counting, making sure they shout out in Welsh. Additional adult tasks (purpose, outline of additional adults' role and children's learning): Introduce all the animals in the story 'Cuddio'. Do they know what animals they are in English? If not, remind them of what they are. Can they remember where these animals hide in the story? * Will Wlwer (goats) * Dai Draenog (dall) * Ceri Criban (blodau) * Moll Malwoden (pot) * Gwyn Gwddin (goeden) * Cei Cwningen (tŷ) Play the game bingo in Welsh (bingo board with all the animals from 'Cuddio' on it). Additional adult to ask – "Ble mae ...?" (one of the animals). Children need to check their board for that animal. If they have it, the children need to answer with "Dyma fi", followed by a counter being placed on that picture. First child to get a line (making sure they answer in Welsh) earns a Dado. The next child to fill their board and get a house (making sure they answer in Welsh) earns two Dado's. Take photographs of both activities.		Meeting learners' needs: Numbers in Welsh Ble mae ...? Dyma fi Dyma Tedi Where is ...? Here I am Here is Tedi Cuddio Will Wlwer Dai Draenog Ceri Criban Moll Malwoden Gwyn Gwddin Cei Cwningen Teddy Powerpoint Bingo boards Counters		Whole class- * Translate each powerpoint slide into English * Help them understand the meaning of each word before moving on to the next slide / activity Assessment for Learning (strategies and opportunities)	
Introduction/Plenary tasks Introduction (Whole class) (15 minutes) Cantaleu Introduce and read the story 'Cuddio' using the powerpoint provided (translate each slide to English after reading it in Welsh). Ask the children after each slide if they understand what is going on – if they don't, explain what is happening. Story Cuddio – Will Wlwer and his friends want to play hide and seek. Each slide tells us where Will and his friends are hiding. What do the children make of the story? Did they enjoy it? Which part was their favourite bit? Can they tell you where each of the animals were hiding?		Plenary (5 minutes) Revise the language: * Ble mae ...? (Where is) * Dyma fi (here I am) Do the children understand what they mean? If not – explain the meaning again and use the language in the next lesson.		Curriculum coverage (range and skills)					

Figure 1.5

Name of Trainee: Brynle Allworth		Session ref: 11:00am – 11:30am		Date: 23/11/2018		Class: Reception	
Targed(au) Hyfforddi Personol 83.2.8 (PT)		Number of learners: 26		Age: 4 – 5 years		2d	
Learning objectives/intentions:		Discuss facts about owls		Success Criteria		Meeting learners' needs:	
Introduction/plenary tasks		Main activities					
Introduction (whole class) (5 minutes) THIS LESSON IS REFLECTING BACK ON MY IN-SCHOOL TRIP THAT I ORGANISED – THE OWL VISIT Ask the children did they enjoy the owl visit. What was their favourite part? – holding the owls, seeing them fly, getting to know the history of the owls? Explain that we will be working in our groups to discuss what we now know about owls, after the visit. Remind them that on Tuesday we had a discussion about what we know about owls (before meeting them), and today we will have a discussion about what we now know about owls (after the visit).		Trainee focused task (purpose, outline of trainee's role and children's learning): (20 minutes) Have a group discussion about the owl visit. What have the children learnt about owls now that they have seen them? Have they got any new facts about owls after they visited the school? Can the children answer these questions now that they have seen the owls and heard from the owners? - What do owls eat? - Where do they sleep? - Are they awake in the day or awake at night? - Can you describe an owl? THINK, PAIR, SHARE Additional adult tasks (purpose, outline of additional adults' role and children's learning): -Same activity as the trainee focus task – 2 groups each)- Have a group discussion about the owl visit. What have the children learnt about owls now that they have seen them? Have they got any new facts about owls after they visited the school? Can the children answer these questions now that they have seen the owls and heard from the owners? - What do owls eat? - Where do they sleep? - Are they awake in the day or awake at night? - Can you describe an owl? THINK, PAIR, SHARE Independent learning opportunities:					
Plenary (whole class) (5 minutes) Ask the children if they can remember facts about owls after the owl visit – Read the 4 different owl sheets from each group (what they now know about owls).		Owls Facts What do you remember Owl sheet Owl picture Word mat					
Assessment for Learning (strategies and opportunities)							
- Group activities – generate facts together - Adult support available - Owl word mat provided							
Assess the children's understanding in the introduction through questions and answers							
The use of the activity in the plenary will allow assessment for understanding							
The use of the activity in the main activities will allow assessment for understanding in smaller groups							
Curriculum coverage (range and skills) - Use words, phrases and simple sentences - Exchange ideas into one-to-one and small group discussions, e.g. friends							

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