

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

Introduction

The strongest influence on student learning is, obviously, teachers. However, the impact and quality of this influence is variable and complex (Hattie 2012, Timperley 2008). In order to be able to help current and future teachers to maximise the positive impact they have on student learning we need to consider the many different factors that affect this. These include, classroom environment, behaviour management and professionalism, amongst others (Coe et al 2014). This paper is going to focus in particular on a factor which, according to a range of studies (Rockoff et al. 2011, Coe et al. 2014, Sadler and Sonnert. 2016. Shulman 1986), is a critically important influence on teacher effectiveness: teacher subject knowledge.

This assignment is going to examine the relationship between teacher subject knowledge and its influence on effective teaching and learning. Detailed analysis of both these factors will be drawn from current literature and educational research as well as reflections of my own teaching experiences during PTE1.

I will also critically analyse the debate and discussion surrounding what constitutes 'teacher subject knowledge' with reference to different ways studies have attempted to classify its impact on effective student learning. I will also examine the different ways effective learning and teaching can be defined and consider the difficulties this presents in defining a clear correlation between these two factors.

The focus of this report will be influenced by my own teaching practice and will therefore look, in particular, at the effect of teacher subject knowledge in an upper foundation phase classroom within a three-form entry primary school in south Wales.

Defining 'subject teacher knowledge'

A strict definition of subject teacher knowledge is something that is difficult to define clearly. Traditionally, perceptions of what subject teacher knowledge means lean towards a teacher with good subject knowledge being someone who is well read and educated in a subject (Shulman 1986). There are many studies that show that there is in fact little or no correlation between this definition of subject knowledge

and improved student learning (Hattie 2012). Hill et al 2005 put this quite neatly when they state that teacher effectiveness does not simply equate to the knowledge a teacher has acquired but how they implement that knowledge within the classroom. In other words, the knowledge a teacher has about how best to communicate their subject information to learners is an important part of being an effective teacher.

A more accepted definition has evolved from work undertaken by Lee Shulman, a key researcher behind the discussion and debate on defining teacher subject knowledge. In a paper published in 1986, Shulman lays out his reasoning for defining teacher subject knowledge as “how subject matter is transformed from the knowledge of the teacher into the content of instruction”. Shulman (1986) suggests distinguishing teacher subject knowledge into three categories:

1. Content Knowledge (CK) – Going beyond knowledge of the subject facts, and understanding the structures and links of the subject matter.
2. Pedagogical content knowledge (PCK) – Subject matter specifically for teaching e.g. the knowledge needed to carry out the work of teaching that subject.
3. Curriculum knowledge. – An in-depth knowledge and understanding of the current curriculum as well as a familiarity with all the varied resources, programs and topics that are designed for assisting in teaching specific aspects of that curriculum.

This break down allows the consideration of teacher subject knowledge from multiple angles. It neatly moves away from the idea of ‘subject knowledge’ being purely academic skill and focuses it on the teacher as a whole. It does, however, raise the question are all of Shulman’s (1986) categories of equal importance in producing an effective teacher? This is an important question that needs further, in-depth exploration; something that I will endeavour to do throughout this essay.

Shulman was not the only educational researcher to breakdown and classify types and uses of knowledge. Another classification, illustrated by Grigg (2015), looks at the what (Declarative), how (Procedural), when and why (Conditional) associated with different forms of knowledge. Another framework that can be used for giving an understanding of knowledge is ‘the knowledge quartet’ developed by Rowland et al. (2003) as a tool for examining how content knowledge is used within

primary mathematics. The knowledge quartet breaks down knowledge into four categories: Foundation, Transformation, Connection and Contingency.

This tiny snapshot of some of the many and varied way that subject 'knowledge' can be interpreted and classified is a clear illustration of the difficulty in accurately defining teacher subject knowledge. This difficulty needs to be borne in mind when considering how 'knowledge' affects the efficacy of teaching. To avoid confusion and the inclusion of far too many different factors, this essay is focusing on and using Shulman's (1986) knowledge categories as a framework for considering teacher subject knowledge.

What is the impact of pedagogical content knowledge (PCK)?

The findings of a study by Sadler and Sonnert (2016) on the relationship between student gains and teacher knowledge focused on teacher knowledge of common misconceptions. The conclusions of this study suggested that a teacher's ability to correctly identify common misconceptions is an important PCK factor in effective teaching. This study seems to suggest that PCK of how students think and where they are most commonly going to need help and support is a key, even critical, part of effective teaching.

The study carried out by Sadler and Sonnert (2016) was focused on science teachers within the American education system teaching children aged 11-13. This is a factor which needs to be considered before Sadler and Sonnert's conclusions are adapted and incorporated into any future educational developments. A study undertaken by Hill et al. (2005), which focused specifically on mathematics teaching for 6-9-year olds within the American education system, found a positive correlation between teacher PCK and student knowledge gains. Surely this means that PCK is the most important of the three knowledge categories?

The result of these, and other studies (Rockoff et al. 2011, Coe et al. 2014) show that by changing some aspect of PCK there was a statistically significant impact on student knowledge gain. However, Shulman (1987) and Hill et al. (2005) warn of the danger of not factoring in the different subjects and curricula within and across different studies. All these studies need to be considered carefully before any blanket conclusions are made from them. It is important to critically consider whether a study illustrating the importance of predicting misconceptions on effective middle school

science teachers has any meaningful message that can be useful in a foundation phase classroom in Wales.

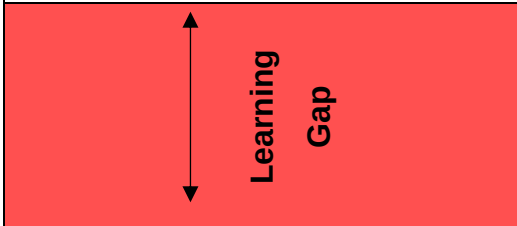
In the case of the study by Sadler and Sonnert (2016), I believe that it does. Critical reflection of my own teaching practice shows several occasions where a stronger PCK would have allowed me to better predict difficulties that my students might encounter. As part of a research-based lesson on nocturnal animals (**Appendix 1**), the children were to help set their own success criteria. I had planned to prompt their thinking with a question “What facts do you think we should find out?”. I then gave an example question “Where do they live?” and tasked the children with talking to their partners to think of other questions. The responses I got back, however, were answers to the question ‘Where do they live?’ rather than their own questions. On reflection (**Appendix 2**), when planning the lesson, I was probably too focused on achieving my QTS target and being creative with my lesson plan. I needed to have given thought to what difficulties the children might face in understanding the task. I had given them a task that was too broad. A better PCK would have allowed me to realise that that section of the lesson needed better structure and focus. In this situation a better insight into the mistakes and misunderstandings I might encounter would definitely have made me a more effective teacher. I posit that for a teacher the method and practice of teaching, or pedagogy, should be the scaffold around which any teaching is planned. Arguably this suggests that PCK is the most important of Shulman’s (1986) knowledge categories as it is the category that other knowledge types are framed around.

Is content knowledge important?

According to studies (Coe et al. 2014, Shulman 1987, Hill et al 2005) the amount of pure knowledge a teacher has about a subject does not indicate on its own whether that teacher is an effective teacher in terms of improved student learning. Does that also mean that teacher CK isn’t important? Quite simply, no. Shulman (1986) outlines how ignoring the content part in favour of a focus on aspects such as classroom management, time allocations and lesson planning leaves central questions about teacher effectiveness unanswered. To be able to identify common misunderstandings, a teacher needs to have a solid grounding and understanding of

the correct method or answer. Only then can they build a PCK of how it might be taught and the mistakes that need to be tackled or avoided.

A notable gap in my own CK for a Welsh primary school teacher is my limited knowledge of the Welsh language. My knowledge limits what Welsh I am able to teach. This means that the children are limited on what they learn, which in turn affects their welsh educational development. During my PTE I planned and taught a lesson focusing on expressing emotions in Welsh (**Appendix. 3**). I had a strong PCK of how to approach the subject, the lesson plan included several different pedagogical techniques to help understanding and remembering and there were links to previous learning to give the lesson context. On paper I had all the Welsh CK I needed: a range of emotions were included in the resources and PowerPoint.

Figure 1: Visual illustration of the welsh vocabulary learnt by two classes, showing the learning deficit caused by a lack of content knowledge.	
Class 1 (My class)	Class 2
Hapus	Hapus
Drist	Drist
Wedi Blino	Wedi Blino
Bendigedig	Bendigedig
Ofnadwy	Ofnadwy
 Learning Gap	Nerfus
	Grac
	Gyffrous
	Ofnus

On reflection, the student learning outcomes of my own class compared to another year 2 class, taught by a teacher with a much stronger welsh content knowledge, shows the impact of my own lack of knowledge. My class had covered a smaller range of emotions than their peers, giving them a comparative knowledge deficit (**Fig. 1**). It is easy to see how, if the effects of this knowledge gap are extrapolated over a full year of teaching, the other class would leave the Foundation Phase with a much better Welsh language knowledge. Whether this knowledge gap would be considered the hinge point for defining the efficacy of the teaching or

whether the differences in educational outcome could be defined as being statistically significant are something that is considered later in this essay.

As a counter argument for the crucial importance of teacher content knowledge, we can look at the break down of my scientific knowledge. A master's degree in a science-based subject, whilst showing I have a strong scientific content knowledge, does not automatically mark me out as being an amazing teacher of science-focused topics. I would argue, however, that I am a confident and effective teacher of science focused lessons. This is the result of skills that I acquired whilst working as a science communicator at a science discovery centre. Through this job I developed knowledge of how to explain complex scientific principles in a simple but effective way and how to present scientific information to children of a range of ages. It is this PCK that has been most useful during PTE1 for planning and teaching science principles. This echoes Grigg (2015) who argues that to know something is not enough. An effective teacher needs to be able to transfer that knowledge to their pupils in an accessible way. In my case the pure science CK wasn't enough, a PCK of how to communicate the science was also needed for effective science teaching.

How can curriculum knowledge influence effective teaching?

Even with a competent level of both CK and PCK there were situations where the effectiveness of my own teaching was more influenced by my curriculum knowledge. One example is in my teaching of subtraction in a focused maths class. In this instance, curriculum knowledge doesn't just refer to a strong knowledge of the mathematics aspects of the foundation phase curriculum and the key learning point for teaching subtraction skills to a group of Year 2 students. A quick analysis of my own knowledge before approaching this teaching task, with reference to each of Shulman's categories (1986), is illustrated in **Fig. 2**. This gave me a good grounding from which to approach planning lessons and activities about subtraction. There was, however, one piece of vital information missing: the school had its own school-wide mathematical guide and methods. The guide laid out the way in which different mathematical skills should be taught and outlined how teaching of subtraction should progress up the school.

Figure 2: My Mathematics Knowledge (Subtraction) for teaching Year 2 – using Shulman’s teacher content knowledge categories (1986).

Content knowledge: A strong grasp and understanding of the principles of subtraction. A tendency to panic when doing mental maths and make basic mistakes.

Pedagogical Content knowledge: Knowledge of a range of approaches to teaching subtraction including partitioning and takeaway, comparison and other methods outlined in Chapter 3, Haylock and Cockburn (2013). Knowledge of how to use a range of resources to facilitate clear illustration of the principles of subtraction including a number line, bead strings and multilink cubes.

Curriculum knowledge: (From the Foundation Phase Framework): Year 2 pupils should be able to find a small difference between two numbers by counting on, e.g. $44 - 28 = ?$

Notes on a range of strategies that can be used to teach these principles including number lines and object grouping.

It was incredibly important that I knew the school’s teaching program for maths in order for the lessons I taught to have been effective. If that part of my curriculum knowledge had been missing, then I may have taught my class a completely different method and approach to mathematics than their peers. No matter their grasp on my teaching, if I had taught a reduction method based on the principle of counting back, when the school method is derived from the inverse of addition, then this would have a negative impact on the children’s education. As a worst-case scenario, they could have found themselves falling behind their peers due to having to later learn the inverse method and the resultant confusion that might have caused.

Alongside Mathematical development, Language, Literacy and Communication is another key component of the foundation phase curriculum. It is also an area where, although I have a strong content knowledge, my pedagogical content knowledge and school specific curriculum knowledge need development. My PTE school are a lead school for the Read, Write Inc. program. Read, Write Inc. (RWI) is a phonics-based program designed to help teach children in the Foundation Phase to read. Once a child has ‘graduated’ out of the initial RWI scheme they transfer across to the ‘Literacy and Language’ programme, which can be used to teach all aspects of literacy right through to Year 6.

Before starting my PTE1 I had only a basic knowledge of the RWI scheme and had received no official training on either the RWI or Literacy and Language

schemes. This heavily limited my ability to teach Literacy, Language and Communication until I had observed, read through and gained a thorough knowledge of the Literacy and Language scheme of work. Even then, the prescriptive nature of the scheme combined with my lack of teaching experience still meant that any effective learning within my literacy and language classes was more due to support from an experienced mentor rather than my own teaching abilities.

Defining 'effective teaching'

So far, I have referred to teacher subject knowledge as having either no, little or a strong impact on student learning and effective teaching, depending on the different definitions of subject knowledge. It is important however to critically analyse just what is meant by 'effective teaching' and consider how it might be measured. Coe et al. 2014 attempt to answer this by stating that 'Great teaching is defined as that which leads to improved student progress' (pg. 2). Surely, following this it could be argued that any teacher who helps a student to make progress within their educational journey is an effective teacher? For example, I could say that, I am an effective teacher because I helped my students to be able to express their feelings in Welsh, something that they couldn't do before I taught them. Would that be strictly true? Just because my students can now recite 'Sut wyt ti?' to each other and respond with 'Dw'in hapus' does that mean that there has been truly 'effective' learning taking place? To be able to determine how effective my teaching has been for their educational development, several different factors need to be considered. Do they fully understand what they are saying? Can they properly relate the statements they are making to their feelings? Have I provided them with the appropriate vocabulary to properly express their emotions? If

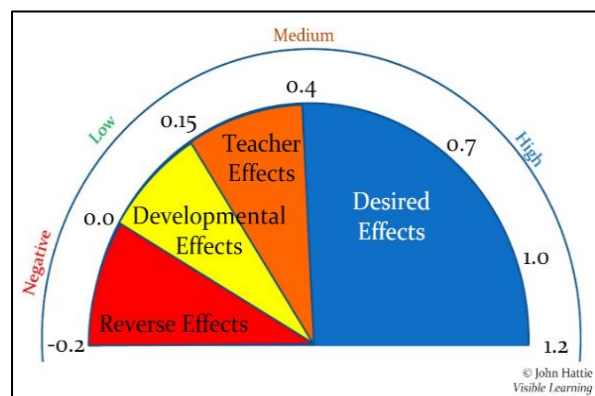


Figure 3: A visual illustration of effect size. An effect size on 0.4 or greater is considered by Hattie (2012) to have a desired and visible effect on student learning.

the answer to each of these questions isn't 'yes' then I would argue that my teaching hasn't been truly effective.

There needs to be a way of classifying more accurately what can be labelled as effective teaching. The obvious starting point for this would be the meta-analyses study undertaken by John Hattie (2012). Hattie (2012) collated over 900 meta analyses to identify specific educational outcomes. Using statistical analysis and identification of individual influence factors, Hattie (2012) calculated 'effect size', a measure of statistical significance of a specific influence factor (**Fig. 3**). This is a great tool for determining the impact to learning of factors such as 'homework tasks on foundation phase aged children'. Homework is something that can be found in many forms world-wide and, as such, large amounts of data were available to for Hattie to collect and collate. It is, however, a less useful tool for the individual teacher looking to critically reflect on their own performance.

Another approach to defining and identifying effective teaching is outlined by Coe et al (2014): teacher assessment. Coe et al. further outline three approaches to teacher assessment which had shown moderate success in identifying teacher effectiveness:

1. Observations of teachers and their teaching practice by peers, mentors or external evaluators.
2. Assessment of student knowledge improvement or 'value-added' models
3. Student ratings.

Logical consideration suggests that each of these methods have merits, but also some obvious draw backs. Observation by peers for example, there is potential for this to benefit both the observer and the observee. The observer get the chance to witness teaching in a classroom environment which mostly likely varies from their own, maybe seeing postive practices they may choose to use within their own teaching. The observee gets the opportunity to get feedback on their teaching practice which hopefully highlights their teaching strengths and offers suggestions for improvement. However Coe et al. (2014) warn of the need for this observation process to be undertaken with a sense of collective responsibility and critical reflection. They also highlight the need for more than one form of assessment. A 'credible' identification of what defines effective teaching needs to rely on a collation of several sources. Using the example of peer assessment; a single assessment by a fellow teacher saying that I was an effective teacher would be potentially unreliable

unless backed up with other evidence. For example maths assessment results which show improved pupil understanding beyond what was expected, combined with a positive peer assessment of a maths lesson could be argued to indicate that effective teaching was taking place; as least in mathematics.

Focusing on the learner

Whilst Shulman's categories (1986) provide a useful framework for this, there are aspects relating to teacher subject knowledge that I believe have been missed. Principle of these is the pupil connection; in other words, a knowledge of the learner.

Timperley (2008) argues that the ability to accurately identify what a student can do is an important building block for effective teaching that is responsive to the pupil's individual needs. This 'assessment knowledge' as Timperley brands it, but which I shall refer to as knowledge of the learner, is important for maintaining a student focus. Knowledge of the learner is a vital strand of teacher subject knowledge which need to be woven throughout a teacher's practical application of each of Shulman's knowledge categories (1986).

A teacher may feel confident they know the most common mistakes made by students in a specific subject. This may be true, but can they accurately analysis what mistake might be encountered for a specific group of children? Do they know how to build a pedagogical understanding and relationship with the children in their class? As part of my PTE I often helped to support a small group of pupils with the tasks they were doing. To be able to do this well I had to know the needs of the children within the groups. I needed to have a good knowledge of the learners, and sometimes this portion of my teacher subject knowledge was lacking.

During one such occasion the children were inventing and describing an invisible friend. One child was fixated on the idea of writing about the Titanic; I endeavoured to support them in thinking of ideas for describing words or alternative ideas for an imaginary friend but with little luck. On the other hand, my class mentor had much more success. She redirected the child towards the idea of an eagle for an imaginary friend. Using a balance of forceful and supportive encouragement she was able to re-direct their thoughts to an idea that allowed better exploration of imaginative describing words. I found out after the incident that this particular child has a habit of fixating on the Titanic, and that to give the child other ideas to redirect their focus was an effective way of supporting them. In my own reflections upon the

incident I reason that a better knowledge of the child would have meant I could have supported the child better (**Appendix.4**).

Implications for the changing curriculum in Wales

With the development of the new curriculum using the suggested framework provided within the Donaldson report (2015), the landscape of primary teaching in Wales is undergoing big changes. How can the information explored above be used to support these changes and foster effective primary teaching in Wales? A key focus behind the Donaldson report (2015) was the practical application and development of important life skills. The education and professional development of teaching staff, who will be influencing and shaping this new curriculum, surely needs to follow along the same lines. Perhaps the four purposes, which outline four key values that the Donaldson report (2015) feels should be nurtured in our children, could also serve as a framework for nurturing teacher subject knowledge? Certainly if 'ambitious capable learners' is one of the goals behind the new curriculum, I would argue this should extend to teachers too. A teacher who has the ability to continue developing their knowledge and the ambition to continue growing as a teacher would definitely be having a positive impact on their students, however you define or classify knowledge and efficiency.

The new developing curriculum brings its own challenges to a teacher looking to develop as an effective teacher. A more holistic, cross-curricular approach to subject teaching is a key focus of the new curriculum. The implementation of cross-curricular teaching needs to be accompanied with teacher support and development. An effective teacher of a cross curricula programme of education will need sufficient CK for a range of subjects, a good level of PCK for these subjects as well as a proficient PCK knowledge of how to link and interrelate the different subjects and a practical understanding of the new curriculum.

Conclusion

The evidence examined throughout this essay shows that the type and amount of subject knowledge a teacher has is definitely an important factor for shaping the educational outcomes of the children in their care.

Clearly, becoming an effective teacher is not something you achieve, get a certificate for and can tick off your to-do list. A truly effective teacher is one who is

always reflecting on their performance; using the different effectiveness assessments as an opportunity to improve, building on all their knowledge bases.

The development of the new curriculum in Wales offers an exciting opportunity for Donaldson principles to be applied to teacher professional development; through the continuous development of skills and the idea of teachers, as well as pupils being on an educational journey. In essence the new curriculum is looking to bring benefits for the children, but this comes with challenges for the teacher. Teachers need to be supported and empowered to develop their subject knowledge, to efficiently identify gaps and, crucially, how to tackle them.

The principle conclusion is that, there is no easy 'follow this rule' solution to becoming an effective teacher. The secret lies in being able to acquire a balance between the three Shulman (1986) knowledge types, with attention to other key factors, such as knowledge of the learner, thrown in to the mix as well. It is clear that all of these different factors are important. A proficiency in one factor, e.g. CK is not enough to counter a deficiency in another factor such as curriculum knowledge. A truly effective teacher has a balanced subject knowledge.

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APPENDIX 1: Nocturnal Research Lesson Plan

Name of Trainee: _____		Session ref: <u>Sp141118</u>		Date: <u>14/11/18</u>		Class: _____		Cynllun Ffocws y Cyfnod Sylfaen 2d
Targed(au) Hyfforddi Personol		Effective communication of L.O. and S.C.		Number of learners: <u>15</u>		Age: <u>6/7</u>		
Learning objectives/intentions:	- We are learning about creatures that are awake at night. - Your task is to work in a group to find out about one nocturnal animal.	Success Criteria	To work in a team to research facts on a nocturnal creature and present it back to the rest of the group.	Meeting learners' needs:	Preset groups with a balance of abilities (Peer support).			
Introduction/plenary tasks		Main activities		Resources/ Key Vocabulary		Assessment for Learning (strategies and opportunities)		
Introduction - Hook – Eyes closed listening to the sound clips. What can they hear? - Reference back to 'The Owl who was afraid of the dark'. - Introduce the word 'Nocturnal'. - Talk about other nocturnal animals.		Trainee focused task (purpose, outline of trainee's role and children's learning): - L.O. – See above. - Fact Detectives – Their challenge is to find out about one of these animals. - Outline success criteria/questions with the children. - Children split into groups of 3. - Each group is given an animal to find out about. - Each group has a sheet to fill in and record the facts they find. - List of websites/QR codes for the websites they are allowed to use. - Research focus: - Habitat - Diet - Family - Special Fact		QR codes to appropriate websites e.g:     Vocabulary - Nocturnal - Habitat - Diet		What sounds did you hear? - Popcorn Why was it so important for Plop to learn to love the dark? – TTYP What other animals can you think of that are nocturnal? – TTYP What are we learning today? - TTYP What is a fact? - TTYP What facts do you think we should find out? What do we need to do to be successful?		
Plenary Present their information as a group to the rest of the class. (Emphasis should be on working as a team to present).								
Curriculum coverage (range and skills) KUW (Range) Identify some animals and plants that live in the outdoor environment (Skills) Identifying what they want to find out and how to do it								
Literacy (LNF) Reading - Identify and use text features, e.g. titles, headings and pictures, to locate and understand specific information - Look for key words to find out what the text is about Writing - Write for different purposes				Numeracy (LNF)				

APPENDIX 2:*Assisted Reflective Conclusions (ARC) Model***Date:** Wednesday 14th November**Critical incident (focus):** Miscomprehension of success criteria

<i>Experience</i>	
<i>Feelings</i> <i>"What are your feelings regarding the experience?"</i>	Frustration and confusion about how the misunderstanding could have happened and be tackled
<i>Remember and Understand</i> <i>"Can you list the aspects of the learning experience that went well?"</i> <i>"What were the elements of the learning experience that were disappointing?"</i>	As part of a research-based lesson on nocturnal animals the children were to help set their own success criteria. "What facts do you think we should find out?". Gave an example "Where do they live?", but children's responses were answers to this question rather than question ideas of their own.
<i>Evaluate and analyse</i> <i>"What will you keep the same to ensure effective teaching and learning in the future?"</i> <i>"What was the cause of the most important disappointing element?"</i>	In future cases of misunderstanding I would calmly back track and re-explain as I did in this situation. Even after 2x explanations there was still confusion which was disappointing. How could I have tackled the issue differently.
<i>Conclusions and actions</i> <i>"What are your possible solutions to the disappointing issues identified?"</i> <i>"What will you do next?"</i>	Possible solution? To give the children the categories and leave space for them to choose one for themselves. SMART target? Clearly defined success criteria for next lesson. Test understanding using TTYP.
<i>Transformed experience</i>	

APPENDIX 3: Welsh Language Lesson plan (Edited to show how the lesson ended up being taught and how that differed from the original plan. Changes made due to Christmas concert rehearsals).

Name of Trainee: _____		Session ref: <u>Sp31218</u>	Date: <u>3/12/18</u>	Class: _____	Cynllun Ffocws y Cyfnod Sylfaen 2d
Personal target - Keeping a faster pace to the lesson. (3.3.7)		Number of learners: <u>15-29</u>	Age: <u>6/7</u>		
Learning objectives/intentions:	- Learn how to ask how someone is in Welsh - Learn to say how I am feeling in Welsh	Success Criteria	- Children are able to ask about and express their feelings in Welsh.	Meeting learners' needs:	
Introduction/plenary tasks	Main activities		Resources/Key Vocabulary	Assessment for Learning (strategies and opportunities)	
Introduction • Carpet: Intro 'Sut wyt ti?' and each emotion in Welsh (MT/YT; show me your best 'hapus' face) • Tables: Whiteboard game – say an emotion (e.g. Dw i'n grac) and children draw and angry face on whiteboard. (Progress to partner work?)	<u>Trainee focused task</u> <u>Carpet: Learn a song:</u> "Helo Ffrindiau, sut wyt ti? Dw i'n hapus hapus, sut wyt ti? Dw i'n hapus hapus, ha ha hee. Diolch ffrindiau, hwyl fawr." "Helo Ffrindiau, sut wyt ti? Dw i'n drist drist, sut wyt ti? Dw i'n drist drist, boo hoo hoo. Diolch ffrindiau, hwyl fawr." "Helo Ffrindiau, sut wyt ti? Dw i'n fendigedig, sut wyt ti? Dw i'n fendigedig, yip yipee. Diolch ffrindiau, hwyl fawr." https://www.youtube.com/watch?v=i401rNZ8YXg • (Originally the plenary activity) Emotions game (Outside): say an emotion and they run to the matching face and text. (Just matching text for Diamond group). • Tables: Matching/ tapping game. OR Write up in books.		Emotion flash cards Whiteboards and pens Music and Lyrics Key vocab • Dw i'n.... • Hapus • Drist • ~~Grae~~ • Fendigedig (edited to Bendigedig to avoid confusing the children) • Ofnadwy • ~~Ofnus~~ • ~~Nerfus~~ • Gyffrous • Wedi blino	- MT/YT - Partner work - Games	
Curriculum coverage (range and skills) Welsh Language Development (Oracy) To talk/communicate for a variety of purposes including: — joining in with simple rhymes and stories — reciting or singing Welsh poems, songs and raps — talking of matters of immediate and personal interest — asking and answering questions — expressing feelings					
Literacy (LNF)			Numeracy (LNF)		
DCF	Thinking		ESDGC	YCC Welsh language development	

APPENDIX 4:*Assisted Reflective Conclusions (ARC) Model***Date:** Tuesday 6th November**Critical incident (focus):** Working to support a small group in Literacy and Language (L&L)– writing about their invisible friend (Creative writing)

<i>Experience</i>	
<i>Feelings</i> <i>"What are your feelings regarding the experience?"</i>	
<i>Remember and Understand</i> <i>"Can you list the aspects of the learning experience that went well?"</i> <i>"What were the elements of the learning experience that were disappointing?"</i>	During a writing task in L&L, was working to support a table of 4x pupils. One pupil got stuck for ideas 'I don't know what to write'. I opted to help him by asking questions e.g. does he have a name? Can you describe him to me? Another child was fixated on the idea of writing about the Titanic. I struggled to help direct him to a more appropriate idea. Class teacher used direct suggestion of an eagle – this worked.
<i>Evaluate and analyse</i> <i>"What will you keep the same to ensure effective teaching and learning in the future?"</i> <i>"What was the cause of the most important disappointing element?"</i>	The use of questions was effective in helping support the first pupil in shaping his ideas and is a tactic I will use again. It was disappointing I couldn't help the second child the same way. A better knowledge of the child and a confidence in myself, that giving a new idea/suggestion was appropriate in this situation, would have helped.
<i>Conclusions and actions</i> <i>"What are your possible solutions to the disappointing issues identified?"</i> <i>"What will you do next?"</i>	Getting to know the children and their specific needs. This will come over time but could be helped by a) reading through their books, b) discussion with the class teacher. A confidence in myself to when suggesting an idea is the right option and a knowledge that suggesting an idea is not providing the answer. Child 2 still had to use adjectives to describe his eagle and write a sentence outlining what it looks like.
<i>Transformed experience</i>	