

LEVEL 6 ASSESSMENT SPECIFICATION

Student name:	Jade Rowley	Student ID number:	1800158
Programme:	Primary		
Module:	Principles of Pedagogy		
Module code:	M6X01438/C	Contribution to Overall Module Assessment (%):	100%
Lecturer:	Siân Brooks	Internal Verifier:	Siân Brooks
Assignment Title:	'Describe a learning event which has happened during your recent school experience. Reflect upon what took place, connecting events to theories of learning and teaching. Make recommendations about how you could improve your own practice in the light of this. Produce a poster to illustrate how you would develop the elements of an effective learning environment.'	Word count (or equivalent):	5,000 or equivalent.
Submission deadline:	17/10/18 (23.59)	Return date of provisional marks & written feedback:	14/11/18
Submission method:	All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.) Alternative submission method (if applicable): Late submission of the assessment will result in a late penalty mark. Penalties for late submission: Up to one week late, maximum mark of 40%. Over one week late, 0%. Only the Extenuating Circumstances Panel may approve a change to submission dates.		
Academic honesty / referencing:	Academic honesty is required. In the main body of your submission you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment.		

Describe a learning event which has happened during your classroom observation.

Reflect upon what took place, connecting events to theories of teaching and learning.

Make recommendations about how you could improve your own practice in light of this, and produce a digital poster to illustrate how you would use all of this information to develop the elements of an effective learning environment.

Word Count: 5498

Introduction

A paradox exists in strategies for enhancing teaching and learning. On one hand, learning is an independent activity which learners must undertake for themselves; yet there is also a well-established tradition of using dialogue in education which dates to Plato and Aristotle (Pritchard, 2005: 99). With the statutory implementation of the Literacy and Numeracy Framework (LNF) in Wales in 2013, oracy was embedded in the curriculum as one of the core strands of literacy learning (Welsh Government, 2013). Discussion for learning is an intrinsic part of education in Wales and helping children to develop their linguistic skills is one of the major goals of primary education (Hardman, 2008: 133).

Education cannot occur in a vacuous classroom devoid of social and critical dialogue (Mercer, 1995: 47) and neuroscientific research suggests that spoken language is key to the physical development of the brain in pre-adolescence and enables children to develop more intellectual patterns of thinking (Alexander, 2004). From a pedagogical perspective, educational research indicates that talk engages, motivates and increases pupil's learning gains, whilst from a political standpoint, it is imperative that democracies have citizens who are prepared to argue, reason, challenge, question and evaluate (Alexander, 2004).

As a primary school teacher in Wales, then, it seems that it is my duty to use dialogic teaching in order to equip young learners to become the change-makers of the future. However, educational theorists express opposing views about the ways in which dialogue should be utilised in education and the impact of this on children's progress. In this assignment, I will observe an incidence of dialogue in the classroom and draw upon learning and teaching theory in order to ascertain how I might successfully implement dialogue and discussion into my future teaching practice.

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Observation

During September 2018 I observed classroom practice in a large primary school in South Wales. The school has nearly 500 pupils across 16 classes, running from Nursery to Year 6. 21% of pupils are eligible for free school meals (Estyn, June 2018) which is 2% above the national average. Few students speak English as an Additional Language (EAL) (Estyn, June 2018). During my visit I was struck by the quality of discussion between pupils in many classes I observed and I shall expand upon one such incident in this section.

I will make ethical considerations in my depiction of and reflection upon this observation. The pupils and teachers will be treated 'fairly, sensitively and with dignity' in adherence with BERA (2018: 6) guidelines. To retain their anonymity I will refer to the pupils as *Pupil One*, *Pupil Two* etc. and the teacher as *Teacher X*. As a courtesy to *Teacher X*, I requested and received their prior consent to use this incident for the basis of this study.

Brookfield (2002) suggests that teachers can examine their practice through four lenses: their autobiographical learning experiences; through the eyes of their pupils; based on colleagues' experiences; and via critical literature. In this reflection, I will use two lenses: a colleague's experience and critical literature. This dual-approach is preferable as observing teaching practice alone 'only gives a partial view' (Foster, 1996: 14) whereas, by drawing upon theory too, the event can be understood more clearly.

I have observed and recorded a conversation between four Year Five pupils during a literacy lesson in which the children recapped the grammatical rules for capital letters, full stops, question marks and commas. *Teacher X* instructed them to collectively punctuate and interpret the unpunctuated phrase: '*can february march no but april may*'. *Appendix One* provides a transcript of their conversation. Following this discussion the children reviewed a recent piece

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of independent writing and attempted to fix grammatical errors; pupils *one*, *two* and *four* did this successfully whilst *Pupil Three* struggled to apply their knowledge without support.

I had a selection of qualitative and quantitative methods to choose from for my observation. Wragg emphasises that 'the methods of classroom observation should suit its purpose' (1994: 3) so a quantitative approach, such as a survey, checklist or time-sampling, would not be appropriate as this would not reflect the idiosyncratic nature of speech. Of the qualitative approaches available I chose to dismiss the use of audio-visual recordings as, although a recording would have allowed me to review the dialogue after the event, the equipment may have distracted the children and altered their behaviours. Instead, I chose to sit at a distance from the pupils - a naturalistic observation technique called 'gazing around' - rather than integrating myself with the children through 'participant observation' (Montgomery, 2002: 36). This prevented me from leading the discussion in a particular direction and potentially changing some of the data (Montgomery, 2002; Foster, 1996).

The children observed were in a mixed-ability group. *Pupil One* is "More Able and Talented" (MAT); *Pupil Two* is identified as having EAL, and *Pupil Three* has a statement of Additional Learning Needs (ALN). Group work is important as it enables children to understand others' viewpoints and to justify their own opinions (Grigg, 2015). However, Alexander warns that 'groups are often formed without a strategic view of their purpose' (2010: 289). Streaming groups of similarly-able children into 'sets' enables high-attaining students to, generally, perform exceptionally well and allows for clearer differentiation of work by the teacher (Dunne & Bennett, 1996) yet *The Cambridge Primary Review* has identified that children are aware of how groups are arranged in their classrooms and that setting could have a negative impact on children's self-confidence and esteem (Alexander, 2010). Furthermore, groups of lower-ability children typically make limited progress compared to more-able peers (Dunne & Bennett, 1996).

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Alternatively, children can be placed in mixed-ability groups, as observed here, and this removes the stigma of ability and fear of failure for lower attaining pupils, thus building their confidence and allowing them greater independence (Galton & Williamson, 1992). Meanwhile, higher-attaining students develop teaching skills and consolidate their learning by explaining concepts to lower-ability peers (Galton & Williamson, 1992). Hattie (2012) provides statistical evidence that suggests working in collaborative, mixed-ability groups is beneficial for children's progression: working with peers achieves an effect of +0.52 on learning gains (where 0 is no progress and +0.4 is the average effect size of an intervention), demonstrating that productive peer work has a higher than average impact on children's learning. However, many theorists have highlighted the disparity between children working as a group, or merely working in a group (Dunne & Bennett, 1996; Alexander, 2004 & 2010).

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In the following section, I will reflect on the dynamics of talk in this observation in relation to critical theory in order to ascertain whether the discussion has had an impact on children's learning and, indeed, whether they can be seen to be working as a group or simply in one.

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Connections to Theory

Theories simplify real life, explaining key concepts in a way which enables us to see patterns in cause and effect (Mercer, 1995). Yet, real life is not simple, therefore, there is no singular all-encompassing theory that can explain the complexities of the field of child development and learning (Grigg, 2015). Pedagogy is often classified into three distinct spheres: behaviourism, humanism and constructivism. Behaviourists such as Pavlov, Skinner and Watson, define learning as 'the acquisition of a new behaviour' (Pritchard, 2005: 7). Behaviour can undergo 'operant conditioning' in which the desired behaviour is consistently rewarded or the undesirable behaviour is punished until a permanent shift in the everyday behaviours of the individual occurs (Skinner, 1966). In classroom practice, this can be seen in areas such as testing,

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praise, punishments, rules and basic question and answer approaches (Grigg, 2015). Whilst behaviourism *may* have a role to play in the quality of discussion seen in *Appendix One* (as will be discussed below), the main purpose of the lesson was not to determine a change in behaviour and therefore behaviourism will not be the primary focus of my reflection.

Conversely, humanists argue that human free will defies reduction to the cause-and-effect ideology seen in behaviourism. Humanists such as Rogers and Maslow emphasise the need for educators to consider the whole child, including their needs, emotions and thoughts (Grigg, 2015). In the context of this observation, humanist thought is present in the careful construction of the children's mixed-ability group. However, the topic of this discussion is not of a personal or emotional nature, thus, humanism will not be drawn upon extensively in this reflection.

Finally, constructivists view learning as an active state of mental construction in which individuals accrue knowledge and understanding for themselves based on experiences, rather than through didactic teaching (Halfpenny & Pettersen, 2014). The main contention of constructivism is that we can only learn by 'making sense of what happens to us in the course of actively constructing a world' (Barnes, 2008: 3) and therefore learning must be an 'active' activity with high pupil engagement. Constructivism is formed of two main threads: cognitive constructivism and social constructivism. Jean Piaget (1896-1980) is the principal theorist in cognitive constructivism, which sees learning as the outcome of real-life experiences.

Conversely, social constructivism stems from the works of Lev Vygotsky (1896-1934) and emphasises social interaction and collaboration with more knowledgeable peers as the main proponent of successful learning. Below, I consider the conversation in *Appendix One* in relation to both of these fields of constructivist thought, focusing mainly on the seminal writings of Piaget and Vygotsky. *Figure One* provides a summary of the key similarities and differences between their theories.

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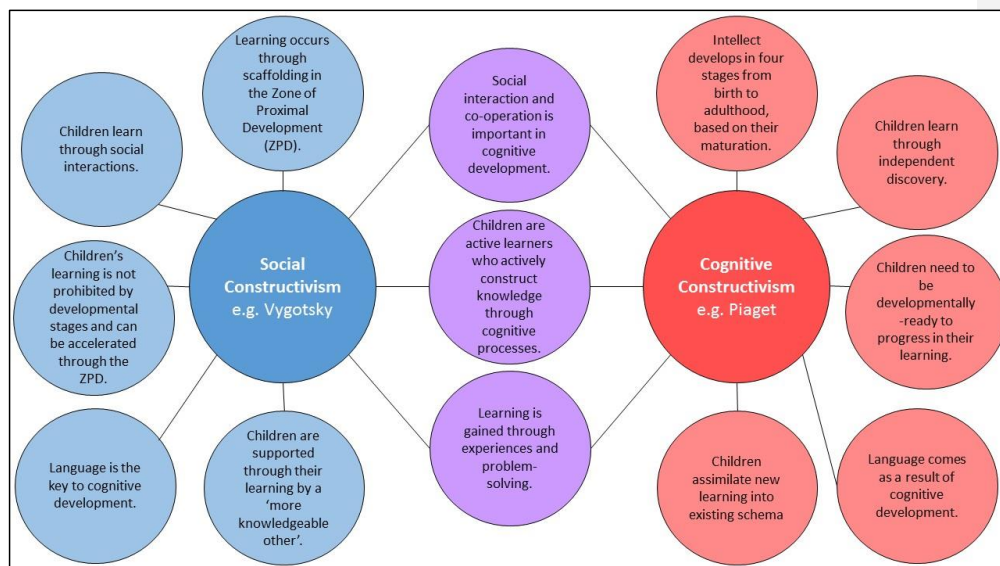


Figure One: A comparison of the key ideas from Vygotsky and Piaget's theories.

Placing children at the centre of their experiences and learning was arguably Piaget's most significant influence on studies of child development (Halfpenny & Pettersen, 2014). Piaget (1926) depicts children as lone scientists who make sense of the world through their individual experiences. For him, the teacher's main role is to facilitate learners' personal experiences rather than to dictate knowledge. Piaget disapproved of didactic teaching methods because they reinforce the 'intellectual submission' between the child and the adult caused by the adult's greater extent of life experience (1926: 248-250). A teacher may encourage a child's exploratory learning but should not take an active part in this personally. In the observed dialogue, *Teacher X* could be seen as having adopted Piagetian ideology: they provide no answers, feedback or affirmations to the children, but encourage them to 'look at the sentence again'. This urges the children to explore the issue themselves and draw upon their own experiences to solve the problem.

One common criticism of Piaget's view is that he dismisses the value of language in learning (Halfpenny & Pettersen, 2014). Although he views children as lone scientists and downplays the role of teacher-talk, Piaget (1926) does advocate collaborative work and dialogue between peers. Piaget highlights peer dialogue as a useful educational tool because a child's ability to argue and reason demonstrates their intellectual development (Howe, 2010). Piaget considered the most sophisticated thinking skills, such as reasoning, argumentation and rationalising conflicting viewpoints to be found in dialogue between children and that this elevates their intellectual reasoning to 'a higher plane' (1926: 248). Discussion between children, then, is valuable in spite of Piaget's dismissal of discussion between pupils and teachers. Piaget may have approved of the style of teaching in *Appendix One* as the children discuss various possible solutions to the problem they are faced with and collectively reason to achieve a satisfactory outcome. They appear to be aware of their own collective effort, as *Pupil Three's* exclamation that 'we did it!' exemplifies.

Furthermore, Piaget writes that 'intelligence, just because it goes through a gradual process of socialisation, is enabled through the bond established by language between thoughts and words' (1926: 45). The collaborative dialogue itself transforms language and enables children to make connections between previously disparate concepts. This is commonly referred to as 'Schema Theory': when children encounter language they automatically relate it to their pre-existing knowledge in order to create mental networks of references and associations in the mind (Piaget, 1953). Piaget notes that punctuation contributes to the formation of unique 'schema' which gives rise to 'syncretistic' thought (1926: 142). That is, Piaget believed all knowledge and experience is interrelated through pre-existing schema in the mind and reliance upon these schemas is the default response of a child when faced with an unfamiliar problem.

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The exercise which the children undertake draws directly upon their schemas as they wrestle with their various pre-existing interpretations of language. *Figure Two* offers a representation of the connections between words which the children make during their discussion as a collective schema, showing the connections between words (circles), concepts (blue oblongs) and rules for grammar (green oblongs). The blue lines represent existing connections between words and concepts whilst the red line represents a new connection made as the outcome of the discussion.

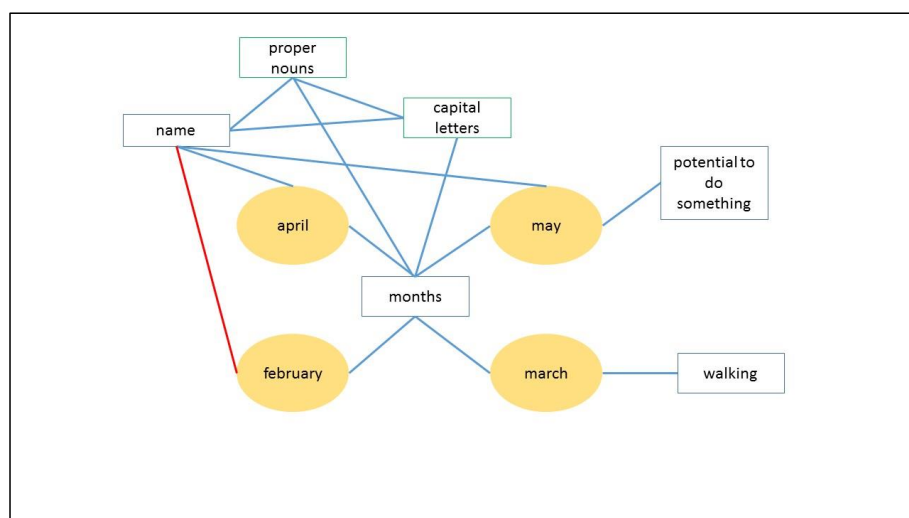


Figure Two: An example of Schema Theory applied to the conversation in Appendix One.

Of course, schemata are personal mental networks and *Figure Two* has been drafted with an awareness that each child in the group will have their own unique schema based on their own knowledge and experiences; they will have also formed different new connections between concepts informed by the contributions of their peers. For example, *Pupil Three* is the only child who initially makes the association between the word 'April' and its usage as a name. This connection may not have previously existed in the minds of the other children, but through the

act of discussion, they have assimilated and accommodated this experience into their own schemas.

The final relevant part of Piaget's ideology is his belief that children universally develop in predetermined stages governed by their age (Piaget, 1926). The children observed are aged between 9 and 10. This places them in the 'concrete operational' stage of their development, which Piaget defines as the point at which children are able to think rationally about real events but cannot yet understand hypothetical, abstract concepts (Grigg, 2015: 137). Arguably, the sentence '*can february march no but april may*' which the children are discussing, requires them to consider abstract principles and ambiguities in order to make sense of it, which they do successfully. This could reflect a popular criticism that Piaget's stages underestimate children's abilities and undermine their potential (Halfpenny & Pettersen, 2014; Child, 2004). Mitchell & Ziegler (2007) also note that the nature of childhood has changed significantly since Piaget formulated these stages, with children maturing physically and intellectually much earlier now. Therefore Piaget's stages model demands to be revised if it is to remain relevant to children in 2018 and beyond. Indeed, the successful outcome of the observed discussion seems to demonstrate that the children have transcended Piaget's stages, meaning this particular component of his theory is not applicable to them.

Vygotsky explicitly drew upon Piaget's works as he imparted his own theories (1962: 9-32, 1978: 1, 27, 79), yet Piaget did not have the opportunity to read Vygotsky's seminal works owing to their late translation (Smidt, 2009: 60). Vygotsky, in contrast to Piaget, argues that learning gains supersede biological development thus, to limit a child's learning opportunities based on their age was illogical (1978: 80). Whereas Piaget (1926) views the teacher as largely supplementary to a child's learning, Vygotsky's (1978) model of learning progression, called the Zone of Proximal Development (ZPD), places a more knowledgeable teacher or a peer in the

centre of the individual's learning experience (see *Figure Three*). Vygotsky defined the ZPD as the space between a child's actual development level where they complete tasks independently and their prospective development level indicated by what the child is capable of achieving with support (Vygotsky 1978: 86).

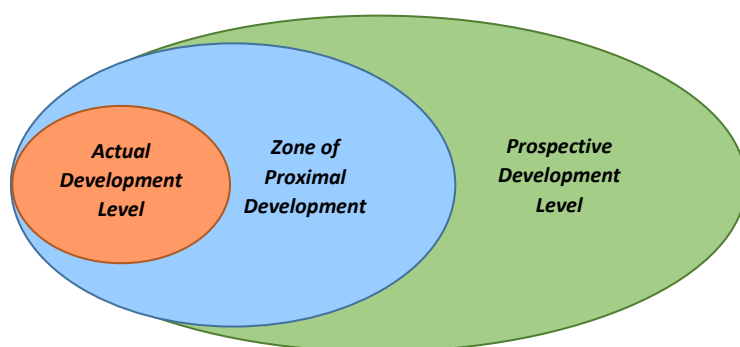


Figure Three: Vygotsky's Zone of Proximal Development (ZPD) (1978: 86)

Vygotsky believes that the problems a child solves when supported by someone more knowledgeable or in collaboration with peers in the prospective development zone are a greater indicator of their cognitive development than their independent learning in the actual development zone (1978: 85-86). Therefore, whilst *Pupil Three's* independent writing appears to show limited understanding of grammatical rules, for Vygotsky, their contribution to the group discussion could demonstrate their potential understanding which they are working towards applying independently. The observed conversation, therefore, takes place within *Pupil Three's* ZPD. However, as the other pupils in the group could apply the discussed knowledge independently, they appear to have moved through the ZPD as their prospective development level has become their actual development level. Yet, ZPD is an infinite cycle and these children will now generate a new ZPD and prospective development level for future progression (Vygotsky, 1978: 87).

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For Vygotsky, the success of the ZPD comes from enabling internal developmental processes to occur through social interaction with peers or teachers as the learning which arises from the dialogue eventually becomes internalised by the individual (1978: 90). This theory illuminates the importance that educators provide opportunities for a dialogic element in lessons in order to move learning forwards, however, some criticise this view as Vygotsky did not specify what precisely needed to occur within the ZPD for development to take place (Keenan, 2002). Whilst supporters of Vygotsky interpret the ZPD to be constructed through the discussion between the more expert other and the novice, this raises questions regarding the source of the expert's own knowledge (Smidt, 2009: 86). Vygotsky does not address this issue but some critics suggest that to do so is to miss the very point of the ZPD: that collaboration and communication itself carries meaning for the learner, rather than a direct transfer of knowledge or skills from the expert (Moll, 1990).

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Vygotsky emphasises that learning may occur 'only when the child is interacting with people in his environment and in cooperation with peers' (1968: 91): learning is the result of social interactions, which later becomes internalised, rather than an internal phenomenon which the individual is then able to express. Vygotsky (1962) distinguished between 'intermental' experience (communication between minds via social interaction) and 'intramental' experience (the way we think as individuals). A child's intermental experience shapes their intramental experience thus social interaction leads to cognitive development as the child moves from being able to understand with the support of an adult (intermental) to being able to understand on their own (intramental) (Smidt, 2009: 28). *Pupils One, Two and Four* successfully apply the grammar rules underpinning their discussion in their independent work perhaps showing that this, for them, is now intramental knowledge, but as *Pupil Three* still struggled without support, this knowledge appears to remain intermental for them.

Vygotsky's work is complemented by Barnes and Mercer's concept of 'exploratory talk'. The term, coined by Barnes (2008) but developed by Mercer (1995, 2000), highlights the need for talk in developing ideas and making knowledge 'publicly accountable' to drive learning forwards (Littleton & Mercer, 2010: 275). Barnes (2008) advocates peer dialogue for problem-solving as it allows individuals to experiment with ideas in a flexible form where they can be adapted and reworked following comments from, or in conjunction with, peers. Exploratory talk is, therefore, a way of collaboratively organising individual ideas to work towards logical conclusions; the ideas vocalised are a work in progress and as such may be hesitant, incomplete or interrupted as the ideas are shaped through the dialogue (Barnes, 2008: 5). This hesitation can be seen in *Appendix One* in the frequent pauses in speech signified by ellipses and the frequent repetition of phrases like 'maybe', 'oh' and 'well'. However, as the children decide upon their ideas and express them to their teacher at the end of the discussion, these examples of hesitant speech markedly disappear from the dialogue as the children are no longer working on their ideas but presenting the end product of the discussion.

It could be seen that, for Barnes, exploratory talk is a somewhat lone exercise for the children (which reflects Piaget's (1926) view of the child as a lone scientist), even though they are working in a group, as the purpose of exploratory talk is for the child to organise their *own* ideas through vocalisation and feedback. Conversely, Mercer identifies exploratory talk in terms of its function for the group rather than the individual (Mercer & Dawes, 2008). Mercer defines exploratory talk as partners engaging 'critically but constructively' with the ideas offered by individuals for 'joint consideration' in order for the group to achieve 'joint progress' (2000: 98). Whilst Barnes (2008) identified exploratory talk through hesitations in the language, for Mercer it is typified by children being constructively critical in their responses to each other's ideas and building on what others have said in a mutually supportive manner (Mercer & Dawes, 2008; Littleton & Mercer, 2010). In this vein, exploratory talk may be seen in examples such as *Pupil*

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Three's interjection that 'I thought you had to have the word 'and' in a list' and *Pupil Two's* query 'why would a month march?' where they respond to their peers' suggestions.

Additionally, Mercer identifies two other types of talk which occur in collaborative exercises: 'disputational talk' which is defensive, competitive and sees information being withheld or flaunted rather than freely shared for public consideration, and 'cumulative talk' in which ideas are shared freely but do not elicit productive or constructive responses from the rest of the group (Mercer, 2000: 153; Littleton & Mercer, 2010: 278-9). It could be argued that *Pupil One's* initial contributions to the discussion are not exploratory talk but 'disputational' as they adopt an authoritative tone and use words such as 'obviously', suggesting that they are not open to debate. Likewise, 'cumulative talk' is present as *Pupil One* and *Pupil Two* both begin by offering the same point with little comment on each other's ideas. It is only when *Pupil Three* asks 'why?' that the discussion becomes exploratory talk.

Collaboration, Mercer (2000) argues, does not come naturally to children and the necessary skills need to be taught before the dialogue begins else pupils will revert to disputational or cumulative talk. *The Cambridge Primary Review* found that if teachers take the time to develop children's collaborative skills, this manifests in pupils' 'academic progress, higher conceptual understanding, behaviour and relation to others' (Alexander, 2010: 290). Hattie's findings reinforce this, with collaborative work leading to a learning gain of +0.41 compared to whole-class learning, +0.59 compared to individualistic learning and +0.54 compared to competitive learning (identified by disputational talk) (2012: 88). Therefore, whilst Mercer primarily builds on constructivist principles in imparting his own theory, his emphasis on the need for rules is more in line with the behaviourist principles discussed above. Behaviourism suggests that ways of learning can be developed or controlled by the teacher (Halfpenny & Pettersen, 2014: 4) and therefore, this undermines the impact of a solely constructivist approach to learning but rather,

calls for an amalgamation of different approaches to support and enhance each other in order to develop learning.

In contrast to these findings, recent research from Iceland suggests that 'quiet' children who do not participate in discussion make the same, or enhanced, progress compared to peers who participate in class and group talk (Óskarsdóttir & Jónasson, 2015). The study argues that active participation (in line with constructivist philosophy) is present in the form of active *listening* rather than active discussion. On this basis, Óskarsdóttir and Jónasson (2015) argue that dialogue is overemphasised in pedagogy and call for a significant reduction of classroom discussion. However, if 'quiet' children learn through active listening, then they need others to listen to. Grigg supports this view by noting that children are able to learn through participation in dialogue or by listening quietly to others – as both situations stimulate the child's imagination and learning (2015: 142). Whilst the study claims that classroom dialogue is ineffective, it is important to note that this hypothesis is based on a year-long study of twenty Icelandic children, a small sample size which may not be extensive enough to prove this hypothesis. Further research may be required and with the emphasis on oracy in the Welsh curriculum, such a study could take place in Wales to measure the benefit of dialogue in a context closer to home.

Reflection and Innovation of a Learning Environment

A learning environment is a physical location and context in which a child learns, encompassing everywhere learning may take place (Williams-Siegfriedsen, 2012: 44). Research suggests that a classroom will either engage or alienate children (Leimanis-Watt, 2010); an engaged child has the greatest potential to progress, so it is essential that all features of my learning environment undergo careful consideration. My learning environment (*Figure Four*) incorporates a range of learning opportunities through both indoor and outdoor provision. A Welsh study found that

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outdoor environments provide an effective stimulus for children to develop their own interests and undertake enquiry-based learning, whereas indoor environments lead to more structured, adult-led learning (Waters, 2013) so a combination of these approaches may be important.

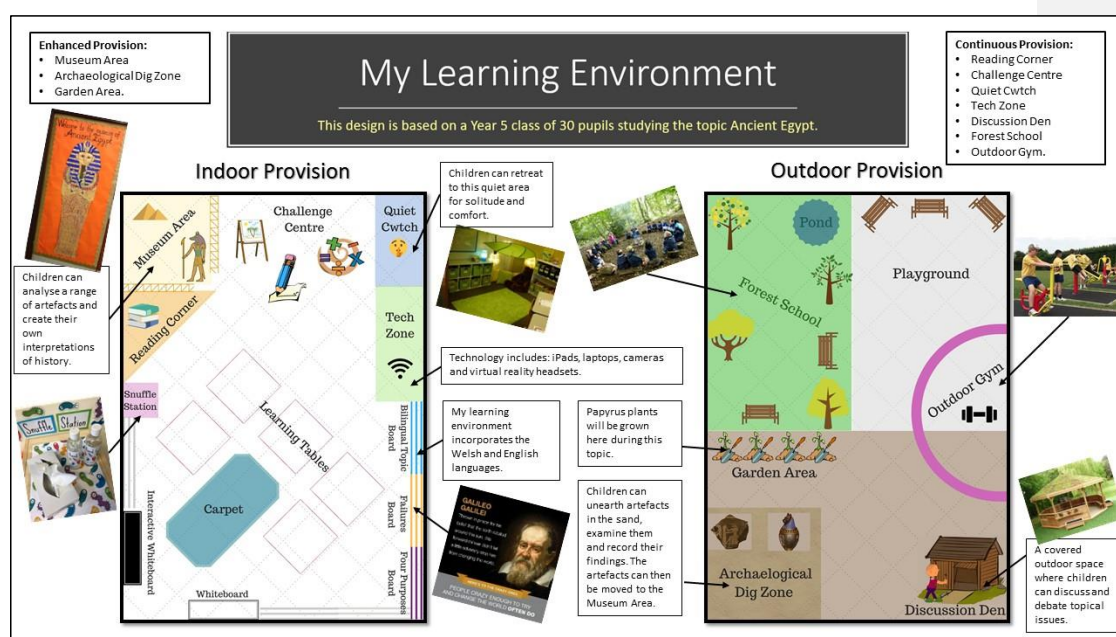


Figure Four: Academic poster outlining a hypothetical learning environment for a Year Five class.

The learning environment is a holistic element of children's education which can impact their psychological, physical and aesthetic wellbeing (Williams-Sieghfredsen, 2012). Maslow's (1943) theory of human motivation provides a model of the different aspects of human need and I have endeavoured to design a learning environment which satisfies all of these. Maslow (1943) presents these needs as a hierarchy from basic needs to self-actualization (Figure Five). Maslow portrays self-actualization as the driving force for human development but this is underpinned by basic needs which influence every aspect of human behaviour (Glassman & Hadad, 2004).



Figure Five: Maslow's Hierarchy of Needs (1943) Available at: <https://www.simplypsychology.org/maslow.html> [Accessed October 10, 2018]

Most children's physiological needs at school are fulfilled through whole-school provision of school meals and uniforms. However, 1 in 5 children under 20 in Wales lives in poverty (NHS Wales, 2013). Children's external experiences can impact upon their ability to achieve self-actualization at school. My learning environment seeks to mediate the emotional impact of these external factors through staff monitoring of each child's wellbeing, and the physical impact of poverty will be combatted through all children receiving breakfast in class each morning. Maslow highlights that 'man lives by bread alone – when there is no bread' (1970: 38) so ensuring children have food and drink is quintessential, however my whole-class approach means no child will feel singled-out as different.

My learning environment predominantly aims to fulfil safety needs related to children's health as even minor illnesses can appear threatening and make children feel unsafe (Maslow, 1943: 10). In the classroom there is a 'Snuffle Station' equipped with tissues and anti-bacterial hand gel; children are encouraged manage their health autonomously and prevent illnesses from

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spreading. Ill-health is exacerbated by a current epidemic of obesity in Wales and the rest of the U.K.: 30% of Reception children are overweight or obese (NHS Wales, 2013), which increases to 32% of Year 6 pupils (Alexander, 2010). To combat this, outdoor gym equipment is provided which children may access all year round. This may encourage children to exercise regularly, countering statistics which assert that only 36% of children in Wales complete an hour of physical activity daily (NHS Wales, 2013). Furthermore, since the gym is outside, children will benefit from the exposure to sunlight which: regulates good sleep patterns and the immune system; stimulates the production of serotonin and vitamin D; and helps children to be alert and ready to learn (White, 2011: 49).

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To ensure all children feel a sense of belonging, my classroom environment will emphasise the importance of collaboration, discussion and social support which I discussed in the previous section. There are areas for social engagement, both indoors and outdoors, including: group tables for collaborative work, benches where children can sit together outside and a 'Discussion Den' where children may discuss and debate ethical issues. Bullying can also affect children's sense of belonging with 30% of boys and 27% of girls in Wales reporting being bullied (NHS Wales, 2013). School can be a lonely place and students feeling this way may become disengaged from learning (Hattie, 2012: 87) but, by ensuring collaboration and social acceptance are embedded in my learning environment, there should be a reduction in the level of bullying.

Esteem can limit children's ability to achieve self-actualization. Dweck (2006) suggests esteem can be developed by adopting a 'growth mind-set', which allows individuals to not be deterred by setbacks but, instead, recognising that failures are learning opportunities which may lead to later success. In my classroom there is a 'Failures Board' which shows examples of famous people, such as Einstein and Disney, who overcame challenges before achieving success. There is blank space for children to add their own 'failures' and how they have learnt from them,

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which may encourage a 'growth mind-set'. Moreover, Dweck (2006) emphasises the need for children to experience freedom in order to build their esteem. My learning environment, although for a Key Stage Two class, incorporates different learning zones more commonly associated with Foundation Phase, and the children will have periods of freedom when they may direct their own learning.

Finally, self-actualisation is where learning may occur, as the individual aspires to become the best they can be, but only once all other needs are satisfied. Maslow (1970) suggests that everybody has a responsibility to aim for self-actualization and growth, as it involves making full use of one's capacity for progress and utilising one's talents and interests. However, only 1% of people regularly achieve self-actualization; most people only experience it through transient moments of 'peak experience' (Maslow, 1970), which involve intense joy, excitement and feeling truly alive (Maslow, 1968). This emphasises the need to provide opportunities for experiential learning in which children can achieve 'peak experience', reflecting Piaget's philosophy that effective learning occurs through experience.

The areas of enhanced provision in my classroom, such as the 'Museum Corner' and 'Archaeological Dig Zone', provide children with the opportunity to enhance their understanding of their topic (Ancient Egypt) through active learning experiences. However, children also learn from experiences outside of school (Wurdinger, 2005). The class will therefore visit The Swansea Museum and explore the Egyptology exhibition to enhance their experience of this topic. Additionally, Leimanis-Watt (2010) suggests that studying artefacts can increase children's engagement in a topic as they begin formulating their own questions. Although a museum does not provide children with first-hand experience of Ancient Egyptian life, this could be achieved through virtual reality (VR) technology. Google Expeditions® allow children to visit Ancient Egypt through a VR headset (*Figure Six*). VR recreates history as 'living museums' where children may

truly appreciate the differences between an ancient culture and their own (Jacobson & Howe, 2007), therefore, VR may allow historical learning to become part of the children's own experiences rather than something examined from a distance. Likewise, VR immerses children in a topic which can lead to the construction of imaginary worlds and deeper, exploratory learning (Kavanagh, 2017). The children of Wales inhabit an increasingly technology-driven world and their learning must extend them from being consumers of technology towards using technology 'creatively as learners and future members of a technologically competent workforce' (Donaldson, 2015: 8); the use of VR in the learning environment can enable children to explore creative uses for technology in a cross-curricular context beyond the Digital Competency Framework (Welsh Government, 2016).



Figure Six: Primary School Children using Google Expeditions technology to take a virtual trip to Ancient Egypt.
Available at: <http://www.shaileyminocha.info/news/2016/10/23/google-expeditions-and-lesson-plans>
[Accessed October 14, 2018]

There are many features of this learning environment, such as Forest Schools, classroom layout and continuous provision, which are common elements of many primary schools so

they have not been prioritised for reflection here. Learning environments, however, are not static but evolve through the input and interests of its children (Magraw, 2011: 26). To prepare children for the new curriculum, Donaldson's (2015) four purposes and their subsections will be displayed on a board in the classroom (*Figure Seven*). Children will choose their own learning focus by placing a photo of themselves next to the skill they intend to develop that day. At the end of each day, children will reflect and feedback on how they have developed their chosen attribute. Children can thereby gain greater agency over their development in these areas and become more prepared for Wales' new curriculum to launch from 2019. It also gives children an opportunity to set their own learning goals and impact upon the classroom environment through their actions.

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Figure Seven: An example of a display showing Donaldson's (2015) Four Purposes for the new Welsh curriculum [photo is student's own, see Appendix Two for consent]

Conclusion

The evidence examined appears to suggest that dialogue has a positive impact on furthering the learning of children. Whilst their theories may differ, taken collectively, Piaget, Vygotsky and Mercer outline a critical role for peer discussion within the classroom as it leads to increased engagement, understanding and cognitive development. Through this observation I have ascertained values which will inform my future teaching practice: peer discussion will have a firm place in my learning environment but, as a teacher, it is my responsibility to ensure pupils develop the skills required to participate in group discussions and work productively together.

An appropriate learning environment is essential in establishing opportunities for effective dialogue to occur. My learning environment ensures that all children's needs are met in order to allow them to successfully access learning. Much learning will be experiential, enabling children to immerse themselves in their topic through freedom to choose learning opportunities both indoors and outdoors, learning through topic-based play in enhanced provision areas, taking school trips to places outside the school grounds such as museums and experiencing other worlds through VR technology. These factors will support children in becoming the enterprising, creative, ambitious individuals which the new curriculum for Wales aspires them to be (Donaldson, 2015).

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Appendix One: Transcript of a conversation between four Year 5 students considering the phrase 'can february march no but april may'.

Pupil 1: February, March, April and May obviously need capital letters because they're proper nouns.

Pupil 2: You mean they're all months? Yes, they definitely need capital letters then, *Teacher X* told us that yesterday.

Pupil 1: Yes... and 'Can' needs a capital letter... because it's the start of a sentence... and you need a full stop after May.

Pupil 3: Why? I don't get it.

Pupil 4: Because it is the end of a sentence and that's the rule... Do you understand now?

Pupil 3: Oh... Okay... I forgot that.

Pupil 2: Maybe... it's a list of months... and *Teacher X* hasn't put in any commas by mistake?

Pupil 3: I thought you had to have the word 'and' in a list.

Pupil 1: Oh yes, you do. So it can't be a list but that's good idea *Pupil 2*.

Pupil 3: Oh... I really don't get what this all means.

Pupil 1: Me neither but we have to figure it out together.

Teacher: Have you thought about what *sort* of words you can see in the sentence?

Pupil 2: Months.

Pupil 1: He means proper nouns... They need capital letters.

Teacher: So which words do you think are months or proper nouns?

Pupil 3: February, March, April and... May.

Pupil 1: Yes!

Pupil 4: But it doesn't make sense if they are months.

Teacher X: Could it be talking about anything else? Read the sentence again and I'll be back.

Pupil 3: April... April is my friend's name.

Pupil 4: Well if April was a girl's name then 'may' could mean –

Pupil 1: - like I may do something.

Pupil 3: I was going to say that! But what may April do?

Pupil 1: March!

Pupil 4: Yes! February can't march but April can!

Pupil 2: Why would a month march?

Pupil 4: Oh... I didn't think about that... A month can't march... I'm wrong... What do you think?

Pupil 3: Well... April is a month and April *can* march because *Teacher X* is using April as a name so... maybe... February is... somebody else's name?

Pupils 1, 2 and 4: Oh...

Pupil 3: I've got it! We worked it out!

Teacher X: It sounds like you're making progress.

Pupil 1: Yes, only April, February, No and Can need capital letters. April and February are names!

Pupil 2: And there needs to be a full stop at the end.

Pupil 4: Does there need to be a question mark after 'march' though?

Pupil 1: Yes, because 'Can' means they are asking a question.

Teacher X: Did you have any thoughts you'd like to share with me *Pupil 3*?

Pupil 3: February and April are both people and only April knows how to march!

Appendix Two: Photographic Consent form for Figure seven.**Consent form for taking photographs and filming**

Trainees must gain the following written consent of the head teacher before taking photographs, filming or audio recording learners.

I agree to Jade Rowley as a representative of SWWCTE to:

Take photographs (display) ☐
Take video ☒
Tape-record ☒ (Tick accordingly)

Student mentor
Name of Head teacher Emma John Signed [Signature]

Name of school [Redacted] Primary School

To be completed by the trainee:

If I am granted such permission, I agree to abide by the ethics embodied within the GTCW Code of Conduct and will not distribute any such material to audiences beyond the University authorities without their permission.

Name of trainee: Jade Rowley (1800158)
Signed: [Signature]

Telephone number: 07912219089
Email address: 1800158@student.uwtsd.ac.uk

Programme (e.g. BA Ed/ PGCE Primary/PGCE Secondary): PGCE Primary
Date: 9-10-18