Abstract
This paper critically explores theories of learning in relation to my initial teaching experience of English. Both cognitivism and constructivism are critically evaluated as approaches to learning, with reference to my own teaching and observations during the initial phase of my training. Meaning-making, memory, and preparedness to learn are discussed within the context of the two theories, with a particular emphasis on the effectiveness of dialogic teaching and learning and group work. This paper concludes that a multi-theoretical approach is to be recommended for the teaching of English; social constructivism clearly fits well with the subject but there must be elements of behaviourist and cognitivist teaching and learning in order to facilitate dialogic interaction, and in order that pupils have a secure cognitive framework. It is suggested that for learning to be facilitated effectively, it is important that preparedness of the learner is also taken into account.

Introduction
This paper will critically discuss theories of learning in relation to my initial teaching experience of English. Whilst this paper will attempt to make reference to separate learning theories, classifying teaching and learning into a clearly defined theory is problematic. As Watkins (2003, p.16) states of the dominant theoretical viewpoints (behaviourism, cognitivism and social constructivism); ‘the three stances on learning do not come to life in neat, separate ways. Real life (and classroom life!) is a dynamic mixture, in which elements of all three may be present all the time’. Therefore within individual learning episodes there will be inevitably traces of many different types of teaching and learning which can be analysed – ‘like all human endeavours, the process of learning can be examined from more than one perspective’ (Mercer, 1995, p.2). Cognitivism and constructivism will be critically evaluated as approaches to learning, with reference to my own teaching and observations, and my own positionality as a trainee teacher.

Cognitivist vs. Constructivist Meaning-Making
Within cognitive theories, the acquisition of knowledge and mental structures are stressed - ‘learning is not concerned so much with what learners do but with what they know and how they came to acquire it’ (Ertmer and Newby, 2013, p.51). Memory is given a prominent role, as well as how information is stored, sequenced and organised (Ertmer and Newby, 2013, pp.52-53). Although this theory could be neatly summed up in the phrase ‘learning is individual meaning-making’ (Watkins, 2003, p.12), the environment is not ignored – what learners have learnt before is of importance, as well as ‘learners’ thoughts, beliefs, attitudes and values’ (Ertmer and Newby, 2013, p.52).

 Whilst sharing many similarities with cognitivism, from which it evolved, within constructivism there is more of an emphasis placed on the context and environment of the learning. ‘Constructivism is a theory of learning that places the quest for understanding at the centre of the educational enterprise’ (Brooks and Brooks, 2001, p.150), and the idea of individuals creating or constructing meaning and understanding from their own experiences, rather than acquiring it, is central (Ertmer and Newby, 2007, p.55). Personal interpretations, experiences, and the interaction between the
learner and environmental factors are critical, as it is this which creates knowledge (Ertmer and Newby, 2007, p.55). This is in line with the ‘Participation’ theory of learning, outlined by Coffield (2008, pp.8-10), in which learning creates meaning out of experience, and is ‘viewed as a process of participation in a variety of social worlds’. Coffield (2008, p.8) also asserts that teaching and learning are not two distinct activities, but ‘intertwined elements of a single reciprocal process... which transforms both tutor and learner’, and therefore this must be taken into account.

Memory, Mnemonics and Measurement
In both cognitivism and constructivism, memory plays a large part, although there is a different emphasis in each. Constructivist theorists focus on the assembly or ‘construction’ of prior knowledge rather than the retrieval of intact knowledge structures (Ertmer and Newby, 2007, p.56). Illeris’ (2007, p. 41) discussion of accommodative learning further explains this - he states that ‘accommodation concerns whole or partial restructuring of already established mental schemes’. In order for this restructuring to take place, we carry out a ‘breakdown of the relevant schemes.... and create the basis to allow the impulses to enter in a coherent way’. In the school environment, the value of cognitivist methods can be seen, in that mnemonics are used daily as frameworks prompting pupils to structure paragraphs properly, and as a way of analysing texts - as Willingham (2009, p.6) states; ‘your memory system is much more reliable than your thinking system’.

However, I have also observed the limitations of this in a lesson where pupils were using the mnemonic ‘PEEL’ (point, evidence, explanation, link) to write paragraphs. They were familiar with the original structure, but the teacher then wanted them to add to this by using a connective phrase to fluently link two ‘PEEL’ paragraphs together. Although the teacher explained example phrases and showed a model answer, the class were unsettled by the alteration to the original paragraph structure. Even though it was a very minor addition, they were concerned about doing it incorrectly, and therefore the teacher had to spend longer than anticipated on the concept to ensure the class understood and felt confident. Hattie (2014, p.174) explains that memory skills do not necessarily help with the ‘deeper aspects’ of ‘relating and extending’ knowledge, and further states that ‘novices are unable, or unlikely, to apply knowledge they have just acquired’ (Hattie, 2014, p.151). This could explain why the year 10 class were initially very under-confident in using the new structure.

Willingham (2009, p.6) argues that ‘if you repeat the same thought-demanding task again and again, it will eventually become automatic’. It is important for the pupils’ GCSEs that they are able to write a well-structured paragraph, and so ‘PEEL’ paragraph tasks are repeated on a frequent basis, to try and achieve this type of ‘proceduralised knowledge’ (Willingham, 2009, p.6). Introduced from year 7, this could be seen as an ‘inappropriate emphasis on tests and examinations’, whereby the pupils’ personal response to the text which is being studied, or discussion of its impact, is not explored fully in favour of practising these exam skills (Ofsted, 2012, p.15). In my own teaching practice, I asked pupils to practise the skill of writing a well-constructed paragraph using the ‘PEEL’ mnemonic. In one lesson in particular, all activities were built around preparing them to write a ‘PEEL’ paragraph, such as selecting appropriate quotations and analysing a model answer. There was possibly more emphasis placed on this than on a true engagement with, and enjoyment of, the text which we were studying. Biesta’s (2009) argument that we are living in an ‘age of measurement’ and Pandya, Wyse and Doecke’s (2012, p.1) assertion that proficiency in English is treated ‘as an entry ticket to the workforce’ explains the constraints a teacher might find themselves under. In a performative system of education (Ball, 2003), and under a neoliberal ‘conservative modernisation’ agenda which places economic rationality above all (Apple, 2009), a teacher is under pressure to teach pupils to perform well in exams.

Portable Learning and Preparedness to Learn
There is obviously the need to be able to ‘make thinking portable’ (Perkins, in Costa, 2001 pp.447-
For many pupils, taking the knowledge of constructing a paragraph from one lesson to another would be ‘low road’ transfer (Perkins and Salomon, in Costa, 2001, p.373), and not particularly demanding. However, the extent to which the retrieval of knowledge is ‘effortful’ or ‘effortless’ (Bransford and Schwartz, 1999, p.64) can affect the ease of transfer, and this process is very dependent on the quality of the original learning. Due to this fact, Bransford and Schwartz (1999, p.68) state that pupils’ preparedness to learn can also matter greatly – the better it is, the greater the level of transfer. They argue that ‘affective and social concepts’ should be moved from the periphery ‘toward the center of cognitive theories’ (Bransford and Schwartz, 1999, p.84), and that factors which affect individuals such as motivation and persistence in the face of difficulty (Dweck, 1986, in Pollard, 2014, pp.51-53) play a major part. The ability of the teacher to take these factors into account is crucial, as Pollard (2014, p.427) states; ‘it is important that the many underlying factors that form barriers to classroom learning are acknowledged’. To ensure this happens, in practice I have observed teachers being careful to share information about pupils’ home life, and difficulties they might experience in the classroom. With this, though, there comes what Norwich (2008, in Pollard, 204, p.429) describes as the ‘dilemma of difference’ - how does the teacher make appropriate provision in the classroom without marginalising or stigmatising any learner? This is difficult to do, but most teachers I observed managed to very subtly if needed. A teacher, and the school environment, must ‘strengthen the factors that underpin learning, such as pupils’ pleasure in learning and their self-esteem’ (TLRP, in Pollard, 2014, p.424), and these are considerations I will endeavour to take forward into my own practice. A ‘safe environment’ (Hattie, 2012, in Pollard, 2014, p.418), and a ‘positive emotional climate’ (Rowe, Wilkin and Wilson, 2012, p.9) where pupils feel that they can learn from each other and make mistakes could be described as a ‘learning community’ (Watkins, 2005). In such an environment, ‘an increased sense of classroom belonging develops and leads to greater relatedness, participation and motivation’ (Watkins, 2005, p.52). Collective knowledge is advanced and supports the ‘growth of individual knowledge’ – both are seen to be the product of ‘social processes’ (Watkins, 2005, p.48), and ‘both the cognitive and the social are both developed in such an environment’ (Watkins 2005, p.57). This is a model whereby individual, ‘cognitivist’ meaning-making and ‘social constructivist’ group meaning-making could work alongside and complement one another very effectively, and is an important consideration for my own teaching practice.

**Dialogic Teaching and Learning**

Whereas cognitivism focuses on individual meaning-making through developing internal mental structures, Brooks and Brooks (2001, p.153) state that ‘constructivist teachers encourage students to engage in dialogue, both with the teacher and with one another’ - an idea which is reiterated in the TLRP principles; ‘learning is a social activity’ (in Pollard, 2014, p.94). Supporting this, with regard to the teaching of English, Myhill and Fisher (2005, p.1) argue; ‘the inter-relationship between talking, thinking and learning is an important strand in literacy pedagogy’. Vygotsky (1975) argues that it is only when a child is ‘interacting with people in his environment and in cooperation with his peers’ that a variety of internal developmental processes are able to operate’. It is possible for people to have ‘shared meanings and understandings that are negotiated through discussion’ (Jordan et al., p.59, 2008), and Ofsted (2013, p.5) place significant emphasis on the development of in-depth ideas and of pupils shaping their own meanings. No two people will have the same discussion, and multiple realities exist (Jordan et al., 2008, p.59), and it is this fact which works very well with some aspects of English teaching. Within my teaching practice, I have tried to utilise this - in one poetry lesson, pupils circulated the classroom and discussed in pairs the meaning of certain lines. Through this, they gained alternative interpretations and a better understanding of the meaning of the poem. Activities such as this take advantage of the fact that ‘discourse with one’s peer group is a critical factor’, facilitating meaning-making (Brooks and Brooks 2001, p.153). In another lesson I observed, this sharing of ideas was again used initially in pairs before moving onto larger groups of four. However, much of the original analysis was carried out by using the acronym ‘FLIRT’ (Form,
Language, Imagery, Rhyme/Rhythm and Tone), which gave the pupils a structured framework on which to ‘hang’ their new interpretations. Hattie (2014, p.170) explains that ‘whenever memory load is high, students benefit from being shown memory aids’. This is a good example of a lesson using a cognitivist-style concept to facilitate social dialogic learning, as well as behaviourism - the teacher was still very much controlling the way in which she would like the pupils to start analysing the text.

In another lesson, de-contextualised words were displayed on the board and the pupils had to discuss in pairs to build a theory of what the poem might be about. This was then repeated with a second set of words and phrases. Barnes (1992, p.28) would describe the kind of discussion which took place as ‘exploratory talk’ where ‘assimilation and accommodation of new knowledge to the old is carried out’ – they were ‘talking their way into it’. The pupils made reference to their own experiences and prior knowledge in order to hypothesise about the meaning of the poem, and came up with some interesting and relevant ideas. In this instance, exploratory talk had allowed the pupils to draw out the contrast at the core of the poem through their initial ideas about the sets of words. My positionality as a trainee often in the ‘swampy lowlands’ (Schön, 1987, p.3) can pose a problem when it comes to exploratory talk, as Gordon (2010, p.56) explains; ‘exploratory talk is extremely difficult to foster’ - pupils ‘initiating a strand of enquiry’ create a challenge, in that the ‘locus of control’ shifts, and the lesson might move in a direction away from the trainee’s learning objective. I have not yet developed the ‘proceduralised knowledge’ (Willingham, 2009, p.6) of teaching which would allow my working memory to deal with both the general complexity of a teacher’s role (Darling-Hammond and Bransford, 2005, pp.1-2; Schulman, 2004, p.504) as well as unexpected topics produced through exploratory talk.

Skidmore (2004, in Myhill and Fisher, 2005, pp.2-3) argues that ‘where children are encouraged to take on a wider range of speaking roles’, dialogue can help develop the ‘individual reflective capacity about texts’. Utilising a variety of speaking opportunities within English therefore seems extremely beneficial. In most lessons, pupils are at the very least given the opportunity to discuss with a partner for a short period of time before being asked for feedback, such as in a lesson starter where pupils had to create a list together of features of an effective story opening. However, whilst co-operative structures such as this are certainly useful, I would argue that they are not really used to build meaning or understanding. Certainly the act of formulating an idea and then speaking it out loud will mean the idea is more likely to be stored in the pupils’ semantic memory, especially if this is repeated in different ways (Sprenger, 1998) – however it is not really using dialogue to its true potential in order to ‘stimulate and extend their thinking, and advance their learning and understanding’ (Alexander, 2006, p.37). There is not the reciprocal process in which ‘ideas are bounced backwards and forwards and on that basis take children’s thinking forward’ (Alexander, 2006, p.24). Indeed, this process could fall under the term ‘pseudo constructivism’, which ‘still sticks to traditional instructivism, but masks this with constructivist jargon’ (Terhart, 2003, p.41), and could also be classed as a part of the ‘folk theory’ (Bruner, 1996, p.46) of constructivism, whereby teachers believe that they are carrying out constructivist style teaching but fail to truly allow pupils to discuss and construct their own meanings.

**Group Work, Ground Rules and Good Foundations**

In other lessons I taught, I tried to use dialogic teaching in larger groups. On these occasions it was difficult to assess the quality of the talk which was taking place, as it was hard to supervise all groups simultaneously. Another issue was that the group work relied on the preparation work being fully completed, and on all members of the group participating, which did not always happen. On one occasion, the pupils were not being asked to produce any written work as a result of their group discussion, and as there was no accountability they did not engage fully with the task and did not use talk effectively. In another, pupils were asked to turn-take in sharing ideas about a poem (for which notes should have been pre-prepared). Some pupils worked quickly and effectively together,
but with other groups it was clear that they needed more structure to be able to work and talk together effectively. This exemplifies the fact that it is hard to set up truly collaborative group work, as well as the fact that it can be extremely difficult for a teacher to manage transitions into and out of group work to avoid any ‘slowdowns’ or ‘jerkiness’ in the pace of the lesson (Kounin, 1970, in Pollard, 2014, pp.178-182). ‘Co-operative group work can, at its best, be a particularly good context for learning’ (Pollard, 2014, p.333) but this is only true if it is well managed and set up so that pupils can share effectively. This highlights the fact that this style of teaching should be taught to teachers and trainees (Sutherland, 2006, p.106). Rotherham and Willingham (2009, p.19) support this, arguing that if we believe such collaborative, self-directed work to be essential, we should ‘launch a concerted effort to study how they can be taught effectively rather than blithely assume that mandating their teaching will result in pupils learning them’. As Simpson, Mercer and Majors (2010, p.4) state, ‘collaborative learning only works well when students know how to work well together – and most of them do not’. This was seen in a year nine lesson where one girl ended up doing the majority of the work, whilst two of her peers were completely disinterested – despite the teacher’s best attempts to try to get them involved in the task. In another observed lesson, pupils analysed a poem individually, then in pairs, and then in fours, sharing interpretations of the text. However, rather than discussing ideas and annotating their own copies, pupils simply swapped sheets and copied each other’s notes. Ofsted (2011, p.36) report that the most effective discussion occurs when ‘group work is planned carefully and structured’. Although the idea of ‘best practice’ is problematic, in that what counts as “effective” crucially depends on judgements about what is educationally desirable’ (Biesta, 2007, p.5), the consideration that pupils would need to be taught to collaborate effectively is something I will take forward into my own teaching practice.

To this end, Mercer and Littleton (2007, in Pollard, 2014, p.283) advocate developing a particular ‘educated’ way of talking and thinking (see also Mercer, 1995, p.80), in conjunction with a set of ‘ground rules’ which would form the basis of how children were expected to collaborate in groups, ensuring that their talk has real educational value, and this links to the idea of establishing rules and routines in order for constructivist teaching to take place. Cooper and McIntyre, (1996, in Davies, 1996) report that pupils themselves found ‘the most successful class discussions were often those which provided opportunities for autonomous thought and personal expression whilst being carefully directed by the teacher’, again supporting the idea that a good foundation is conducive to stimulating and useful discussion. Scaffolding of learning (Wood, Bruner and Ross, 1976, p.97) is a way of providing this foundation, as sometimes students need encouragement and guidance in the formulation of their ideas. I tried to provide this foundation in a year ten lesson, where there was an individual task to complete before the group work took place, in order to scaffold the discussion which followed. The pupils were required to individually brainstorm answers to questions which were on the board, before being grouped to discuss their ideas with their peers. In some groups, where the pupils were more motivated to work efficiently together, this scaffolding task proved an effective way of structuring their discussion. In others, the conversation still moved off topic. The TAs and I circulated to provide verbal scaffolding, which also proved relatively successful. Mercer, revisiting scaffolding in 2002, come to the conclusion that the term can just as easily apply to a symmetrical (or asymmetric) student-student relationship as an asymmetric teacher-student relationship (Fernandez et al, 2002). Mercer’s concept of ‘IDZ’ (Intermental Development Zone), which expands on Vygotsky’s (1975) ZPD concept builds on this, as it makes reference to the ‘mutual orientation of participants to a shared task’ which is created through language and joint action (Fernandez et al, 2002, p.42). These views support the significance of student-student dialogue as a form of scaffolding, and clearly lie within the social constructivist theory of teaching. This strongly links back to the example of the poetry lesson where students were engaging in peer-peer discussion.
A Multi-theoretical Approach
Richardson (1997, p.3, cited in Beck and Kosnik, 2006, p.7) states that constructivist teaching 'is not a monolithic, agreed upon concept' - the central concept is used in a 'very unhomogeneous and inconsistent way' (Terhart, 2003, p.41). Phillips (1995, p.5) describes the emphasis on social constructivism as a 'descent into sectarianism' and argues there is a place for many types of teaching and learning. In itself, classifying teaching and learning into a clearly defined theory is problematic. It is important to note that the classroom environment is ‘multidimensional’ (Doyle, 1977, in Pollard, 2014, pp.164-166), and to this end a teacher may employ many different techniques within one short segment of a lesson which may fall into the ‘behaviourist’, ‘cognitivist’ or ‘constructivist’ brackets. There is a danger that by trying to categorise a lesson into one of the theoretical frameworks, one can underplay the complexity of the classroom. Illeris, (2007, p156) argues that this is the case; ‘models can be very useful illustrations but they always simplify the diversity of reality, and in many cases they can be seductive, precisely because they reduce this diversity’. Dewey (1963, p.17) argues that these ‘either-ors’ are not productive. Thomas (2013, p.32) expands on this by explaining that Dewey stated, ‘concentrate… not on the ‘ism but on the experiences that children actually have in the setting we provide for their education’. Perhaps we place too much emphasis on how it is that the learning happens, rather than the actual learning – and the quality of it – which actually takes place. As demonstrated with the poetry lessons, social constructivist techniques were able to be used – but only once the framework of how to analyse a poem effectively had been put into place. This framework had been conveyed by a much more behaviourist, teacher-led task, in which the learning had been heavily scaffolded. As Harzem (2004, p.11) states, ‘behaviourism is like a sugar cube dissolved in tea; it has no major, distinct presence but it is everywhere’ – underpinning many lessons is knowledge which has been conveyed through a teacher-led session. However, this idea could be inverted – social constructivist-influenced discussion can also drive the start of a lesson – for example through discussion around words or images, such as with de-contextualised words or phrases from a poem. I would argue that using a teaching approach based on one theory would be inappropriate, and agree with Barnes’ (in Mercer and Hodgkinson, 2008, p.7) argument that; ‘it is important not to let ourselves idealise group discussion’ - it is ‘a valuable resource… but it is not a universal remedy’ and ‘needs to be embedded in a sequence of work which includes other patterns of communication’, and his affirmation that teacher led discussion is also ‘essential’. During observations, an extremely good example of this was noted; using ‘no hands up’, the teacher asked questions relating to the context of ‘Of Mice and Men’, for which the pupils had prepared answers for their starter activity. The pace was quick and dynamic – each time a pupil answered, the teacher immediately responded with ‘why?’ – sometimes more than once – meaning pupils had to then justify their response. This could be classed as a worthwhile ‘IRF’ exchange (Pollard 2014, p.329), whereby there was a positive chain of interactions between the teacher and an individual student and which could ‘help a class construct a common basis of knowledge and provide vital information about where learners are in their understanding’ (Pollard, 2014, p.330).

Conclusion
Social constructivist teaching and learning clearly fits well with the subject of English, in that dialogue between peers and between the teacher and pupils is often necessary in order that multiple interpretations of a text are explored. However, ‘both the shared construction and the individual struggle to reinterpret are essential’ (Barnes, in Hodgkinson and Mercer, 2008, p.10), and therefore, as discussed, there must be elements of both cognitivist and behaviourist teaching and learning which take place in order to facilitate these types of dialogic interactions. This is also required so that pupils have a secure cognitive framework in place in order for the new ideas and knowledge to be assimilated with existing structures and understandings, and for meaning to be created and retained. There is a caveat to this, and that is that ‘learning cannot be designed: it can only be designed for – that is, facilitated or frustrated’ (Wenger, 1998, p.229). I would argue that one key way which this learning can be facilitated is by taking into consideration the preparedness of the

References


