

“A critical evaluation and the identification of next teaching and learning steps focusing on a case study of an individual learner or a group of learners, based on an observed critical incident”.

Introduction

This assignment will look in depth at one critical incident that was observed within a primary classroom. A critical incident in teaching, particularly when looking at professional reflection, can be defined as “Not a ll dramatic or obvious: they are mostly straightforward accounts of very commonplace events that occur in routine professional practice which are critical in the rather different sense that they are indicative of underlying trends, motives and structures” (Edvardsson and Roos, 2001, pp. 24-25).

Therefore, the assignment will look in depth at one critical incident observed within practice and its significance in its link to theory. The topical critical incident will be looked at in depth within a review of the literature to understand its significance in practice while considering differing perspectives. Critical incidents can be useful within teaching as reflection of these can influence future practice.

Following a look into the literature surrounding the critical incident the assignment will include a reflection and evaluation of the next steps to take. It will investigate how reflection models are used within teaching practice to provide for professional growth. The Welsh Government (2021) state how initial teacher education students need to use the standards from early on in their career to allow for the use of reflective practice in these incidents. This reflective practice will provide an opportunity to inform suggestions for my future practice. It will ensure there will be suggestions and not criticisms of practice to allow for growing my own professional and personal development.

The role of critical reflection

The role of critical reflection is important for professional growth within the workplace (Jaworski, 1993). Van Woerkom (2004) acknowledges how critical reflection can be the most significant learning experience as a person can reassess the way in which problems have occurred and their own meaning of their perspectives. The role is particularly important for teachers as it's a way to assess effectiveness while improving teacher performance. Tripp (2012) discuss how the reflection of critical incidents are also essential in teaching to allow teachers to understand how their personal experiences and views influence their practice.

Professional development is an important part of the teaching profession and is essential to improving school performance (Vogrinc and Zuljan, 2009; Bolam, 2000). Khan (2020)

discusses how professional development is essential for the enhancement of a teaching role as it assesses the current level and expands the skills, attributes, and knowledge to improve. It is acknowledged within Fraser *et al.*, (2007) that professional development is an ongoing process of reflection rather than the attendance of courses and training days. Adey's (2004) proposed model for professional development declares that the time taken to reflect on practice is thought to be an important factor towards professional development.

When looking at individual models of reflection the Kolb's (1984) model can help aid professional development. This model was developed to allow structure to learning from past experiences. There are 4 stages within the model: Concrete experience, reflective observation, abstract conceptualisation and active experimentation. This model allows teachers to learn for future experiences from looking at what went well and what didn't go well. Oviawe (2020) states how the use of reflection helps to bridge the gap between theory and practice.

The education system in Wales is currently undergoing changes to prepare for the curriculum for Wales coming to place in September 2022. The Welsh Government (2021) have set out for the schools to write their own curriculum that enable learning to develop towards the four purposes. When looking at professional development within the agreed purposes it is stated that they will "promote the basis for focus and consistency in teacher professional development" (Donaldson, 2015, p.21).

This new curriculum for Wales has professional standards for teachers as part of professional development. All NQTs and ITE students in Wales are required to work towards these standards. Welsh Government (2021) state that "Professional standards describe the skills, knowledge and behaviours that characterise excellent practice and support professional growth". These standards have set out clear expectations of effective practice. Implementing these standards into the Welsh curriculum allows practitioners to critically reflect on their own practice against these standards so they can acknowledge their achievements (Welsh Government, 2021). ITE students will have access to a professional learning passport (PLP) that will ensure the realisation of the new curriculum for Wales. The professional standards ensure ITE students understand the importance of engaging with professional learning.

Observation school and class context

This assignment will comply to the BERA (2018) guidelines "Researchers should recognise the entitlement of both institutions and individual participants to privacy and should accord them their rights to confidentiality and anonymity". To ensure this all school, staff and pupil information will remain anonymous throughout.

The observation was undertaken at a school within the Bridgend County that caters for children between 3-11 (nursery to year 6). It is an English-medium mixed gender primary school. The nursery is currently on a separate site but will be moving to the same building for 2022. There are 164 pupils enrolled at the school with almost all coming from the local area. There are 6 classes in the school which are mostly mixed age apart from the nursery and reception classes which are merging for 2022. The school has 26% of pupils who are entitled to free school meals which is average for the local authority (ESTYN, 2014). No pupils who are enrolled at the school speak Welsh at home and almost all pupils are White British who have English as a first language (Estyn, 2014).

For this assignment the research took place in two different classes. One day was spent within a mixed year 1/2 class and the next day was spent in a mixed year 4/5 class. The main critical incident discussed, that is shown in appendix 1, was based within the mixed year 1/2 class.

Critical incident linked to Donaldson's four purposes

The critical incident (appendix 1) observed within the mixed year 1/2 class took place within the afternoon following lunch time play. It was a literacy session working with the higher ability group of 8 children. The small group were asked to come into the spare classroom and sit on the carpet. The spare classroom is familiar to them as it is straight opposite the main classroom, and they use it for focus tasks. It is a quieter room as no other disruptions are occurring from children who are on continues provision. The teacher has explained that this is not usually a time where a literacy session takes place, they usually are completed in the morning, but the morning sessions have run over.

Once the children settled the teacher explained that they are going to be writing a letter to their favourite colour crayon, but the colour needs to be the same for the whole group. They were asked to collaborate and discuss to decide which colour they were going to choose. All eight children had different reactions to this. Some children immediately did start discussing which was their favourite while others sat in silence and others told the teacher they did not have anyone to discuss with. The teacher realised the group were struggling with the task of collaboration so stepped in to support and show them how to discuss what their favourite colour is and why. Once they had voiced their opinion they were shown how to vote and came to the decision as a group that their favourite colour was purple.

This critical incident has links within the four purposes in the new curriculum for Wales. The first purpose it has links within is "Healthy, confident individuals who are ready to lead fulfilling lives as valued members of society" Welsh Government (2021). This purpose includes children developing skills and knowledge to manage everyday life. In completing this task children are developing a skill of collaboration which is an important skill for the future and is

used as an adult in most situations. Benford *et al.*, (2000) states how collaboration is an important skill for children to learn. This critical incident also allows has links to the purpose as children are developing confidence, resilience and empathy. Collaboration allows children to grow in confidence as they are listening to others, respecting their opinion and voicing their own.

The critical incident observed also has links the purpose “Ambitious, capable learners who are ready to learn throughout their lives” Welsh Government (2021). This purpose discusses how children should develop the ability to solve problems and communicate effectively. By collaborating, children are solving problems to be able to make the same decision as a group. Children are showing to be developing affective communication with discussing in pairs, groups and voting. In doing this children are developing the ability to explain their ideas about what they think and why. Adair and Adair (2009) state how important it is to gain effective communication.

Literature Review

This review of literature will investigate how this critical incident has evident links to theory. It looks at how the teacher aided the children's learning using support techniques of the Zone of Proximal Development (ZPD) and scaffolding. The social impacts of the critical incident will also be explored.

Zone of Proximal Development

The ZPD has evident links within the critical incident. Vygotsky's (1978) ZPD is the area between what children cannot do and what they can do independently. This area is where children are able to complete a particular skill or knowledge with support. Supporting Vygotsky's ideas is Eun (2019) where it is stated how ZPD plays a critical role in effective learning in both informal and formal situations. Within literature it can be recognised how Vygotsky's ZPD has been viewed in depth. Verenikina (2003) looked at how the ZPD was successfully used within practice. It is stated how this distance between completing something independently and with the help of a more significant other indicates stages of development. He stated how the practitioner is not a source of information but a device to aid students thought, to move them to the next level.

Rogoff's (1990) constant highlighting of children participating in social settings lead to a development of the ZPD concept (Cocking, Renninger and Renninger, 2013). Rogoff (1990) discusses the ZPD as being a success for not only the child but the more knowledgeable other to. Children are not only receiving support from the adults in their own activities to become independent, but also looking to advance in the adults activities. The child finds the adults role

interesting and attempts to enter into their activities and then becomes part of their ZPD. There are also studies which show success in the adult to child collaboration within the ZPD model. Radziszewka and Rogoff (1988) carried out a study that found children who collaborated with adults on a task were most likely to complete it successfully. However, it is important to note this is a small-scale older study that only involved children of one age group, results may differ in children of other ages.

However, looking at the literature involving Vygotsky's ZPD there are differing perspectives on the success of its use within practice. Wertsch (1984) discusses one problem with the use of the ZPD theory is a situation definition. This is a problem as the child will have a different definition of what is expected compared to the adult's definition. The children and adult will be completing the task in the same context but, they would understand it in different ways. Further literature agrees with the criticisms of the ZPD use within practice. Kozulin (2003) states how Vygotsky's ZPD remains poorly misunderstood. Chaiklin (2003) agrees as the model is unclear as it does not explain how the development arises or its process. There are too many ways in which the model can be used with no clarification. There is also no precise image of a child's capability level, learning needs and their motivational pressures.

When looking at this particular critical incident and the literature of the ZPD theory the use of collaboration is evident. Tudge (1990) carried out a large-scale study that discusses how the use of collaboration can mean that children are able to learn adult behaviours as adults carry most of the responsibility for the learning process. This being said, the importance of peer interaction should not be ignored. If a higher ability child is collaborating with a child who is considered lower ability this enables a cognitive development for the lower ability child. However, this may also cause a regression of development for the higher ability child due to their peer not being on the same degree of higher-level thinking (Tudge, 1990).

While looking at differing views of peer collaboration and its use within practice Saxe *et al.*, (2009) discuss how it is a social process where concepts and thinking strategies can arise between students. (Mercer, 2008) agrees and states how collaboration amongst peers allows for a positive impact upon cognitive development for all children involved. However, although it is evident that peer collaboration can have a positive impact it is important to note that the teacher still has an important role to play within peer collaboration (Jadallah *et al.*, 2011; Hogan and Pressley, 1997). The teacher can use the ZPD to control the collaboration that takes place ensuring that they are developing in the skill.

Scaffolding

The use of scaffolding within practice is also evident within the critical incident. Bruner (1983) first developed the theory of scaffolding which has a similar concept to Vygotsky's ZPD.

Gonulal and Loewen (2018) state that “Scaffolding refers to the temporary and dynamic support within the ZPD”. When children are learning something new, they are more likely to use knowledge independently if they are given support. Wood, Bruner and Ross (1976, P.90) define scaffolding as a process “That enables a child or novice to solve a task or achieve a goal that would be beyond his unassisted efforts”.

Within literature there are many discussions of the effectiveness of using scaffolding within practice. Gonulal and Loewen (2018) state how beneficial the use of scaffolding is in practice. It is stated how scaffolding can be applied within the classroom in many ways. One of these allows for learners to be given corrective feedback as the learning is taking place. Learners are more likely to achieve the learning outcomes while their teachers and peers provide them support where it is necessary. More recently Margolis (2020) agrees and discusses how children would be incapable of solving a problem if they did not have the help of an adult for support. The teacher is able to control the environment by only giving the child what is within their cognitive range. Scaffolding in the classroom allows the learner to gain an understanding of how the problem can be solved which can lead to them becoming more independent in the future. However, Radford *et al.*, (2015) stated within a qualitative study that for children to gain independence they need to use self-scaffolding.

However, there is also literature discussing how the use of scaffolding cannot be effectively used within practice. Bliss *et al.*, (1996) carried out a small-scale study of how scaffolding is used within the classroom. The study found how scaffolding is an effective teaching method, but it is difficult to use within practice. Teachers are found to be planning to use scaffolding, but it is difficult to implement due to time constraints. It is important to note however this is an older study, and the research only took place within KS2. Results may differ within foundation phase classes. Maybin, Mercer and Stierer (1992) agree and state how scaffolding can be a conceptual level that can be difficult for practitioners to apply within practice. It is discussed how scaffolding was originally developed by researchers exploring cognitive development in young children between their main caregiver or parent. This however would not translate into a school environment as teacher and child relationships would not have the same emotional understanding as a parent to child relationship.

Social Development

Within the observed critical incident, the importance of social development can also be witnessed. A child’s social development can be influenced in many ways. Looking at Bronfenbrenner’s ecological system theory (1979) this is a complex system that is beyond the classroom setting where a child’s environment influences their social development. (Tissington, 2008). Hayes *et al.*, (2017) state how a child experiencing changing system

contexts within their early years impacts directly on their development. Similar views on how social development is influenced can be seen in Vygotsky's sociocultural theory. Vygotsky believed that learning comes first and then development. Learning is also said to be a social process and with support of everyone in the environment children can gain a new skill (Christensen, 2016).

Piaget offers differing perspectives to how a child's social development can be influenced. It is discussed how children are described as "Lone scientists" meaning they are independent learners (Supratman, 2013). Piaget believes how it is up to the individual child to create their own learning and develop the skills they require. Piaget ignored the influence on the environment when it comes to a child's social development and believed how it was purely based on the individual (Tudge and Winterhoff, 1993).

Within the critical incident it is evident to view the children's social development has impacts on collaboration. Collaborative learning is something that has been widely researched. Le (2002, p.2) defined collaboration as "where students work together as members of a learning community, such as working on a problem-solving task by questioning each other, discussing, and sharing information". Collaboration is effective within the classroom as it enhances social and cognitive skills while allowing children to become critical thinkers (Le, 2002). However, Leman and Oldham (2005) offer a differing perspective discussing how collaboration may not be effective within practice. In a large-scale study, it is found how although collaboration is a useful skill it is not effective on young children. This is due to them not having awareness of the use of interaction. Anderson (2001) agrees and states how younger children have inferior cognitive abilities and weak strategic understanding.

Reflection/evaluation next steps

Concrete Experience

To reflect on the observed critical incident (appendix 1), I will be using Kolb's (1984) experiential learning model. My role in this situation was purely to observe within the classroom. I observed the teacher giving support to a small group of children aiding them to be able to collaborate. The children were not able to collaborate without support and needed to be shown how it works. The teacher was able to use methods of scaffolding and the ZPD to meet the children's needs. In receiving the support, the children were able to collaborate and begin to start their main activity.

Reflective Observation

In reviewing this critical incident in hindsight, it is important to evaluate the positive and negative factors. Overall, it was a successful learning experience for the children. Using

methods of Vygotsky's ZPD and scaffolding the children were able to complete the task successfully. The teacher was able to quickly recognise that the children needed support to enable them to collaborate. However, when looking at negative factors the children felt tired and were struggling with the activity and this may have impacted their response.

Abstract Conceptualisation

It's important to analyse the critical incident in detail as this will influence my future practice. The session took place straight after the children came back from dinner break which is unfamiliar to them as they don't usually have literacy in the afternoon. Completing literacy in the afternoon can impact as young children tend to be more tired and won't be as engaged.

The review of literature firstly investigated the ZPD and how this can impact upon learning within the classroom. Verenikina (2003) found how it is an effective teaching method as with the help of a MKO children can begin to work independently and develop new skills. However, Wertsch (1984) found how the ZPD may not always be successful as the children will not understand the same definition as the teacher does. This shows how although the children were able to collaborate to come to a group decision the development of independence around collaboration might not have been there as they may not have understood what the task was.

The review of literature also looked at the differing perspectives about the use of scaffolding in practice. Gonulal and Loewen (2018) state how scaffolding is an effective teaching method as it allows children to be receive corrective feedback as the lesson goes on. However, Bliss *et al.*, (1996) believe how although scaffolding is effective it is often hard to implement within practice. Teachers are found to be planning to use scaffolding but don't always use it due to time constraints. When looking at the literature in comparison to the critical incident it is evident how scaffolding is an effective teaching method as the children were successful in collaborating with support. However, this was not a planned use of scaffolding and was a real time decision to use it. It shows how the teacher does not need to plan to use scaffolding but looking at the children and implementing the support where it is needed.

The review of literature also investigated how social development impacted on the critical incident. Looking at Bronfenbrenner's ecological system theory (1979) the children have not been exposed to all the layers in the wider social context where a child's environment influences on their social development. This may have a direct impact on how they are able to collaborate with other children. Hayes *et al.*, (2017) believe how a child experiencing a change in system contexts has a direct impact on their development. Children have had their social system context impacted over the past 2 years.

Piaget offered a differing perspective here and ignored the environments impact upon social development (Tudge and Winterhoff, 1993). However, it's evident the environment may have an impact upon social development as the children are struggling to talk to each other to collaborate. The children were struggling to collaborate independently, but it was successfully used with support. It is important to note that although the environment may influence social development Anderson (2001) stated how young children may not be capable of using collaboration yet and need more practice to develop.

Active Experimentation

From observing the critical incident, it has allowed me to think about my future practice. First, I will look at how I would use the ZPD within the classroom. It is evident how it can be effective to use within the classroom as children are able to gain new skills and complete them independently. The ZPD can be used regardless of the age of the children and with this support it allows children to be capable of development. However, it will be important to remember when using this is that children need to understand the meaning of the outcome and what they are doing.

Next, I will look at how I can implement scaffolding in future practice. From research it is evident how it is an effective teaching method as it provides children with enough support that they need to be independent within a task. However, it is important to remember that although scaffolding can be planned it may be difficult to implement. Therefore, I would use this in future practice, but it may involve using it as a last-minute teaching method. I think it's important for me to recognise where scaffolding needs to be used and provide the support to the children and use a timely decision to apply it. This is something that occurred during the critical incident as the teacher stepped in as the children were struggling to collaborate without support.

Finally, I will look at how to use the skill of collaboration in future practice. It is evident from the critical incident that the children struggled to collaborate which may have been due to social development and the influences of their environment. However, it is important to note how collaboration is a difficult skill for young children to accomplish. Therefore, in my future classroom it is something that needs to be practiced often so that they can develop more independence. This can be developed through the teaching methods of scaffolding and ZPD. From reviewing the literature, I would also ensure children are collaborating with different children each time including those who are different abilities.

Conclusion

To conclude, observing the critical incident (appendix 1) allowed me to investigate how the teacher can successfully support the children in a task that they were struggling to complete independently. I was able to explore how the teacher brings theory into practice to positively

support their learning. This has also allowed me to reflect on how social development and how a child's outside of school environment can have a large impact on them within the classroom. Taking this approach of critical reflection has allowed me to look at what I would do within future practice.

In completion of this assignment, I have understood the importance of being a reflective practitioner. Becoming a reflective practitioner allows for a growth in professional development as you reflect critically on what you could do differently in the future. It allows the ability to link theory to practice by testing effective teaching methods in future practice. To ensure I could critically reflect on the incident (appendix 1) I used Kolb's (1984) experiential learning model. Using this model ensured I could look critically at the incident to consider differing perspectives and allow for areas of exploration. Using a reflective model also allowed me to influence my future practice and what I might do after analysing the differing perspectives.

As outlined the new professional standards in Wales allow for all ITE students to work towards them. These standards reflect practice that are consistent within the new curriculum for Wales. The Welsh Government (2021) state how important it is for ITE students to engage with professional learning at the very start of their career. Looking at some of the standards thoroughly professional learning has close links with critical reflection. The use of the professional learning passport allows an ongoing critical reflection which encourages a development of professional growth. Another link of critical reflection to the professional standards is innovation as it can aid in developing new techniques and develop practice.

Appendices

Appendix 1

Date and time, year group:

22/09/2021 year1/2 afternoon

Where and When: Context of the observation – subject/AOLE, general classroom context

- AOLE - Languages, literacy and communication
- In a spare classroom – used for focus tasks that's opposite main classroom
- Working with small group of 8 children
- Higher ability group

What happened: a detailed description of the critical incident (the more detail the better to refer to in your later work)

- The group of children were asked to come into the room and sit straight on the carpet.
- They were reminded of the current story the class are reading and told they are going to write a letter.
- The children were told as a group they need to decide which colour crayon is their favourite
- Some children sat in silence
- 2 children said that they didn't have anyone to talk to
- As they struggled with the task of collaborating the teacher then stepped in and support them in discussing what their favourite colour was.
- The teacher supported them to vote on what their favourite colour was so they could begin to write their letters.
- With the teachers help the group decided their favourite colour was the purple crayon and they went to sit around the table.

Areas of possible exploration: what you think could be "under the hood" in these incidents?

What avenues of research could you consider?

- After this activity the teacher spoke to me about how much lockdown affected this age group as they are so used to working at home and not have to communicate and collaborate with other children to complete their work. They struggle with tasks like this and need the support
- This need for teacher intervention links to Vygotsky's zone of proximal development.
- The children need the support of the MKO (more knowledgeable other) to be able to contribute to the skill of collaboration as it's something they can't do alone yet and needs to be developed
- The teacher used scaffolding to support the children where they needed it.
- Impact of social development – the children have had their social environment impacted greatly over the last 2 years

Notes: any details you can note (is it a busy environment, is it after lunch, are there lots of distractions, are directions made explicit - the more you can refer to the better here)

- Quieter than working in main classroom – no disruptions from other pupils on continues provision
- Session took place straight after they came in from lunch play
- Usually, they don't do literacy sessions in the afternoon and are all completed before lunch
- The other activity prior took longer than expected and this one run into the afternoon.
- Might have affected the children's ability to concentrate as they're not used to a literacy lesson in the afternoon.
- Collaborating to complete work is quite a complex skill for young children to have and can be developed through childhood

Appendix 2

Date and time, year group:

23/09/2021, mixed year 4/5, session after fruit and play

Where and When: Context of the observation – subject/AOLE, general classroom context

- Mathematics and numeracy
- whole class teaching
- Prior to the lesson starting
- Children sitting on tables of ability groups

What happened: a detailed description of the critical incident (the more detail the better to refer to in your later work)

- The children understand the expectation that their next lesson is numeracy and mathematics
- Two children who are the math's book monitors and giving out the books to the rest of the class
- The teacher explained to the children that they need a pencil, ruler and rubber for their maths session
- The date and title were written on the whiteboard ready for children to copy into their books
- A lot of the children on most of the tables were very fussy, looking for their books, out of their seats, still collecting the equipment they need
- Four children sitting close to the front were ready to start the lesson and writing the date and title in their books
- The teacher without saying anything handed these four children a raffle ticket
- As the rest of the class continued to talk and were not ready the teacher announced that these four children received raffle tickets as they were sat quietly and ready to learn.
- The class then began to settle and were ready to listen

Areas of possible exploration: what you think could be "under the hood" in these incidents? What avenues of research could you consider?

- This is a method of skinner's operant conditioning
- The teacher used positive reinforcement by adding in the raffle tickets and enforce the good behaviour of being ready to learn
- It encourages the rest of the class to settle and listen as they want to receive a raffle ticket to
- This reinforcement also links to a behaviourist school as learners receiving a reward for learning encourages learning and good behaviour
- In a behaviourist school reinforcement or a reward is needed once good behaviour has taken place to encourage it
- Its important to remember about this method are children just behaving because they want to receive the reward rather than be mentally engaged with the lesson – on their mind might just be receiving the reward.

Notes: any details you can note (is it a busy environment, is it after lunch, are there lots of distractions, are directions made explicit – the more you can refer to the better here)

- Lesson took place straight after fruit and play – however it was wet play so children had not left the classroom at all that yet
- Directions were made clear but some children may have been confused as books and equipment from lesson before were still being put away.
- The four children who received the raffle tickets were all sat together on the same table at the front of the class closest to the teacher

Appendix 3

Date and time, year group:

22/09/2021, happens throughout the day, mixed year 1/2

Where and When: Context of the observation – subject/AOLE, general classroom context

- Occurs numerous times throughout the day
- happens at the end of a session
- usually when the classroom is loud and busy

What happened: a detailed description of the critical incident (the more detail the better to refer to in your later work)

- When the session comes to the end the teacher needs to inform the children that it is time to stop
- The teacher places both hands on their head and shouts the words ‘hands on top’
- The children hear the teacher say this and all stop
- They then copy the action of putting their hands on their heads and shout back ‘that means stop’
- The children understand that this is the end of the session and it is now time to stop what they are doing and begin to tidy up

Areas of possible exploration: what you think could be “under the hood” in these incidents?

What avenues of research could you consider?

- This is a form of Pavlov’s classical conditioning.
- Children are conditioned to understand that the expectation when they hear the teacher shouting these words it is time to stop and tidy up
- Prior to this the teacher would need to shout for the children to stop and also tidy up the classroom but this is no longer the case
- Classical conditioning involves a neutral stimulus which would be the words ‘hands on top’ and a conditioned stimulus which would be ‘amser tacluso’
- The children are now conditioned to tidy up the classroom when they hear the once neutral stimulus

Notes: any details you can note (is it a busy environment, is it after lunch, are there lots of distractions, are directions made explicit – the more you can refer to the better here)

- This doesn’t always work successfully in a very busy classroom. Some children might not have been listening as they are too engaged with their activity
- One of the occasions where this happened throughout the day some children avoided listening and continued with what they were doing even though they understand what the expectation is
- This requires for further reminders and encouragement that it is now time to tidy up and this is what is expected of them.

Reference List

- [illegible]

- Gonulal, T. and Loewen, S. (2018) 'Scaffolding technique', *The TESOL encyclopedia of English language teaching*, pp.1-5. New Jersey: John Wiley and Sons
- Hayes, N. et al. (2017) *Introducing Bronfenbrenner: a guide for practitioners and students in early years education*. London: Routledge.
- Hogan, K., & Pressley, M. (1997) *Scaffolding student learning: Instructional approaches & issues*. Cambridge, MA: Brookline Books.
- Jadallah, M., et al. (2011). 'Influence of a teacher's scaffolding moves during child-led small-group discussions', *American Educational Research Journal*, 48(1), 194 –230.
- Jaworski, B. (1993) 'The professional development of teachers—The potential of critical reflection', *Journal of In-Service Education*, 19(3), pp.37-42.
- Khan, I.A., (2020) 'Exploring Areas and Opportunities of Professional Development for Teacher Educators', *Excellence International Journal of Education and Research*, 9(4), pp. 2349-8838
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Upper Saddle River, NJ: Prentice Hall.
- Kozulin, A. (2003) *Vygotsky's educational theory in cultural context*. UK: Cambridge University Press.
- Lê, T. (2002) 'Collaborate to learn and learn to collaborate', In *Proceedings of the Seventh world conference on computers in education conference on Computers in education: Australian topics-Volume 8* (pp. 67-70).
- Leman, P.J. and Oldham, Z. (2005) 'Do children need to learn to collaborate? The effect of age and age differences on collaborative recall', *Cognitive Development*, 20(1), pp.33-48.
- Margolis, A.A. (2020) 'Zone of Proximal Development, Scaffolding and Teaching Practice', *Cultural-Historical Psychology*, 16(3), pp.15-26.
- Maybin, J., Mercer, N. and Stierer, B. (1992) 'Scaffolding learning in the classroom', *Thinking voices: The work of the national oracy project*, pp.186-195.
- Mercer, N. (2008) 'Talk and the development of reasoning and understanding', *Human Development*, 51, pp. 90 –100.
- Oviawe, M.J.I. (2020) 'Application of Graham Gibbs Model of Reflection to Improve Teaching Understanding among Technical Education Students in Ambrose Alli University Ekpoma Edo State', *Sumerianz Journal of Education, Linguistics and Literature*, 3(2), pp. 8-15
- Radford, J., et al. (2015) 'Scaffolding learning for independence: Clarifying teacher and teaching assistant roles for children with special educational needs', *Learning and Instruction*, 36(1), pp.1-10.
- Radziszewska, B., & Rogoff, B. (1988) 'Influence of adult and peer collaborators on children's planning skills', *Developmental Psychology*, 24, pp. 840-848.
- Rogoff, B. (1990). *Apprenticeship in Thinking*. New York: Oxford University Press.
- Saxe, G. B., et al. (2009) 'A methodological framework and empirical techniques for studying the travel of ideas in classroom communities'. In R. Schwartz, T. Dreyfus, & R. HersHKovitz (Eds.), *Transformation of knowledge in classroom interaction* (pp. 203–222). New York, NY: Elsevier.

- Supratman, A.M. (2013) 'Piaget's Theory in the Development of Creative Thinking', *Research in Mathematical Education*, 17(4), pp.291-307.
- Tissington, L. D. (2008) 'A Bronfenbrenner Ecological Perspective on the Transition to Teaching for Alternative Certification', *Journal of instructional psychology*. 35 (1), 106–.
- Tripp, D. (2012) *Critical incidents in teaching: developing professional judgement*. Classic ed. London: Routledge.
- Tudge, J. (1990) 'Vygotsky, the zone of proximal development, and peer collaboration: Implications for classroom practice', in *Vygotsky and Education*. Cambridge University Press. pp. 155–172.
- Tudge, J.R. and Winterhoff, P.A. (1993) 'Vygotsky, Piaget, and Bandura: Perspectives on the relations between the social world and cognitive development', *Human development*, 36(2), pp.61-81.
- Verenikina, I. (2003) Understanding scaffolding and the ZPD in educational research. Available at: <https://ro.uow.edu.au/cgi/viewcontent.cgi?article=1695&context=edupapers> (Accessed 3rd October 2021).
- Vogrinc, J. and Zuljan, M.V. (2009) 'Action research in schools—an important factor in teachers' professional development', *Educational studies*, 35(1), pp.53-63.
- Vygotsky, L. (1978) 'Interaction between learning and development', in *Mind and Society*, Harvard University Press, Cambridge, pp. 79-91.
- Welsh Government (2018) *Professional Standards*. Available at: <https://hwb.gov.wales/professional-development/professional-standards#professional-standards-for-all-school-practitioners> (Accessed 28th September 2021)
- Welsh Government (2021) *Curriculum for Wales*. Available at: <https://hwb.gov.wales/curriculum-for-wales> (Accessed 28th September 2021)
- Welsh Government (2021) *Initial Teacher Education (ITE) standards*. Available at: <https://gov.wales/initial-teacher-education-ite-standards> (Accessed 14th October 2021).
- Wertsch, J.V. (1984) 'The zone of proximal development: Some conceptual issues', *New Directions for Child and Adolescent Development*, 1984(23), pp.7-18.
- Wood, D., Bruner, J., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Child Psychiatry*, 17, 89–100.