

**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

Wordcount – 4,499

Critical incidents can be viewed as “positive learning experiences” (Tripp, 1993, pg. 8), that provide a better understanding of “self, practice and system”. Tripp suggests that they can be used to inform reflective practice and teacher judgement, mirroring Nisbet and Watt’s definition of a case study, which can be understood as “an instance in action” to improve self (1984, p. 72 (in Cohen, Manion and Morrison, p. 253). Therefore, this study will evaluate and identify, from the perspective of non-participant observer, next teaching and learning steps based on a case study of learners.

For Tripp, critical incidents are not dramatic or obvious, but observed moments of commonplace events that are “funny, sad, witty...boring, good” (Tripp, 2012, p. 24). He suggests that they are indicative of “underlying trends” and motives, offering opportunity for reflection and self-development of pedagogy.

Additionally, Brookfield (1998, p.197) describes critically reflective practice as a process of which practitioners “discover, and research the assumptions that frame how they work”, to develop profession. Brookfield (1998, p.197) further states that reflective practice is a “survival necessity” for continuing educators, like myself, to improve, thus connecting to ideas of self-development through observations that Tripp, Nisbet and Watts discuss. As a result, this study will summarise the discoveries of an observed critical incident and explore relative opinions and theories to develop my next teaching steps as an evolving educator.

School Context

With reference to BERA's guidelines for anonymity (BERA, 2018, p. 21), this study recognises that both the institution and participants are entitled to privacy in my research. Therefore, in accordance with the rights of "confidentiality and anonymity", this study will refer to the institution observed as School X, the teacher as Teacher X and individual student as Pupil X.

School X can be described as a public-funded secondary school with approximately 1,700 students. It is an 11 to 18 mixed gender school, teaching from Key Stage 3 to Key Stage 5. There are around 30 students per class and it hosts a specialist teaching facility for hearing impaired pupils. Almost a quarter of pupils from School X are from an ethnic minority backgrounds and six per cent of the students are eligible for free school meals (Estyn Report, 2018).

Furthermore, the latest Estyn (2018) Report of School X judged the institution as "excellent" across every inspection area, and states they have a "strong focus on reflection" putting "professional learning at the heart of its work". School X has inspirational leadership and "innovative approaches to curriculum design and improving the quality of teaching", demonstrating a strong focus on Donaldson's purposes of developing confident and ambitious learners (Donaldson, 2015).

Methodology

Before conducting this study, different observation models were researched to maintain an impartial approach. Having compared methodologies, a non-participant structured method focusing on one significant case study, was decided to be used for this study. As a result, this methodology will compare and explain reasoning, in order to best develop next teaching and learning steps.

Firstly, observational studies can be interpreted by Wood (2016, p. 126) as the most used form of “individual professional development that teachers can receive”. Wood views the goal of observational research as to help teachers improve their pedagogical practice. Moreover, Bailey (1994, p. 243) states that observational studies are “superior” to other methods, such as surveys, as data is collected through non-verbal behaviour (Bailey, 1994 (in Cohen, Manion and Morrison 2007, p. 279). He further argues that bias could be introduced in written studies, such as surveys, because they depend upon “responses to structured questions” (Bailey, 1994, p. 244). This suggests that by using an observation method, one can immediately identify, and accurately write down “live data” from naturally occurring social situations (Cohen, Manion and Morrison 2007, p.396), without a structured preconception.

Furthermore, Simons (1996, (in Cohen, Manion and Morrison 2007, p. 254) argues that observing a “live” case study “frees the mind of traditional analysis”, suggesting an unstructured approach through a live encounter that creates new forms of understanding education. Likewise, Nisbet and Watt (1984, p. 91) state that the observer should not select “evidence” that supports a “particular conclusion”. This suggests that the observer must not pick out features of a case study to influence their work and keep an open mind in order to discover real and true results to best reflect upon pedagogical practice. As a result, to best

identify next teaching and learning steps, one must represent the case study accurately and as it happens.

It must also be considered “essential” and “fair” for observations to occur in “a variety of settings” (Mercatoris and Craighead, 1974, p. 519). Therefore, four classes were observed in School X before focusing on one critical incident: Year 10 Physics (Appendix A), Year 7 iCreate - Art (Appendix B), Year 7 iSpanish (Appendix C) and Year 9 iCreate - Art (Appendix D). In order to arrange an observation day at School X, this study undertook a structured approach to planning including development of observation sheets (Appendices) to best record a “sequence of analysis” (Tripp, 1993, p. 25). Spradley (in Parke and Griffiths, 2008, p.4) further explain the process of discovering a case study as “circular”, beginning with a structured series of questions, the collection of data and finishing with analysis and reflection. This helps identify and explore all aspects of the lesson and possible critical incidents. As a result, structured observation sheets posed a series of questions that aim to provide context to the data for later evaluation in this study.

Furthermore, there are two principal types of observation, participant and non-participant. Cohen, Manion and Morrison (2007, p.259) define a participant study as the observer engaging in “the very activities they set out to observe”. On the other hand, a non-participant observer is “aloof from the group activities they are investigating”. The strengths and weaknesses of both must be considered in this study.

Clifford et. al (in Cohen, Manion and Morrison, 2007, p. 179) believe that participant observations present “many opportunities” to make sense of “patterns, processes, and connections in social life”. Similarly, Rajkumar (2020, p. 3378) explains that non-participant observations can offer a “nuanced and dynamic appreciation of social situations and patterns” that can otherwise not be captured using other methods. This suggests that both observational methods share similar experiences that offer differing perspectives of understanding patterns in social practice.

Rajkumar (2020, p. 3379) continues to state that a non-participant method does not include a “systematic manipulation of variables”, of which a participant observation may. In contrast, Mercatoris and Craighead (1974, p. 512), argue that the nature of non-participant observations may depend on variables of the observer for example “individual differences of the subjects” and “personal attributes”. Additionally, they state that the presence of a non-participant observer could also affect the student’s behaviour in class (Mercatoris and Craighead, 1974, p. 518). It could therefore be argued that both the participant and non-participant observer host variables of which may contribute the observation. This suggests that both methods share a similar weakness of influencing the study. Kazdin (1973 (in, Mercatoris and Craighead, 1974, p. 519) argues that “target behaviours” come under the presence of any kind of observer. Parke and Griffiths (2008, p. 2) agree with this, stating that it is “evident there is limited consensus on best practice”. This further begs the question as to which observation method would least disrupt students’ learning, and not influence a critical incident?

Thus, to best identify next teaching and learning steps, “looking on” and “not playing an active role” (Urquhart, 2015, p. 30) in the observation seems to be the most passive and ethical approach in this study. Therefore, when pedagogical practices in relation to student learning is being observed, a more distanced approach such as the non-participant structured method is best used to collect data and thus, reflect upon a critical incident.

Critical Incident and links to Donaldson's Four Purposes

The observed critical incident selected in this study was Year 9 iCreate – Art and can be located in Appendix D. It must be noted, that due to Coronavirus restrictions teachers were unable to move within two metres of the students.

With reference to Appendix D, my observed critical incident is as follows. There were 28 pupils in the class, both male and female, aged between 13 and 14 years old. Teacher X began the art class by presenting a new project to the Year 9 students. The task was to create their own video game that solves a problem through curriculum subjects: iCreate, iThink, iDiscover, iThrive or iCommunicate. Teacher X spent the first 15 minutes explaining the task through a slideshow presentation and posed questions to the class regarding previously taught knowledge on who and what makes a video game. The slideshow explored examples of the themes and genre ideas for the video game and gave examples of work from previous years. Teacher X said to the class “The more creative you are, the better it’ll be and the higher a grade you’ll get. The whackier the better”.

Students are first to work individually developing ideas, then in groups to articulate one idea for a video game in the following lesson. When the class had begun working independently on ideas, Pupil X asks Teacher X if they can do a “horror” themed game. Teacher X responds, “No, we don’t want to solve any problems through death or killing and horror incites violence.” To which Pupil X replies, “Why? Violence is real life; we should be taught about it.” Teacher X explains that education aims to create “ethical social members of the school community” and that Pupil X needs to focus on problem solving through a positive learning experience within the game. Teacher X gives other examples of themes with reference to the beginning slideshow. Pupil X listens and continues to work on video game ideas, along with class.

This critical incident relates to Donaldson's four purposes of the new curriculum in Wales as Teacher X responds by reinforcing the aim of developing young learners into "ethical, informed citizens of Wales" (Donaldson, 2015). This purpose encourages Pupil X to understand and consider the "impact of their actions" when making choices as well as respecting "the needs and rights of others" (Donaldson, 2015) Teacher X's response challenges Pupil X with a sense of responsibility by explaining that school aims to create "ethical social members of the school community" that are not "violent". This made Pupil X think, reflect and progress in relation to this purpose and the school curriculum.

Similarly, Teacher X's response emphasises the purpose that pupils become "healthy, confident individuals" that are "valued members of society" (Donaldson, 2015), by directly referring to Pupil X as member of the "school community". This highlights Pupil X's moral responsibility in representing the school through ethical decision-making. It could therefore be argued that Teacher X helps establish Pupil X's spiritual, ethical beliefs and values by managing risk of inciting violence.

Additionally, the lesson connects to Donaldson's (2015) purpose that pupils will be "enterprising, creative contributors" who think creatively to "reframe and solve problems". Students were asked to express themselves by developing video game ideas that aim to resolve a problem educationally, thus highlighting this purpose, as well as applying their skills to "create ideas and products" through different media, in this instance a digital video game. The students were also encouraged to be "ambitious, capable learners" (Donaldson, 2015) by independently developing creative ideas and sharing their concepts with the class at the end of the lesson.

Literature Review

As “interpretation is essential to professional practice” (Tripp, 2012, p. 30), several theories must be considered in relation to the critical incident, to best identify and reflect on next teaching steps. As teaching approaches are evolved and “developed from principles” of “three distinct theories” (Guey et al. 2010, p. 105), this literature review will examine each in relation the critical incident: constructivism, humanism and behaviourism.

Constructivism can be explained as learning through a self-regulated process of which “knowledge must be constructed by the learner” (Gilakjani, Leong and Ismail, 2013, p. 50). Likewise, Mahoney and Granvold (2005, p. 74) interpret constructivism as a “philosophy of participation” where young people are encouraged to be “active in their own unfolding”. This links to the pedagogical practice identified in Appendix 4, as Teacher X encourages students to be *active in their own unfolding* by independently developing creative ideas, whilst offering support when needed. Furthermore, Teacher X implies a sense of responsibility upon Pupil X to think about whether violence is necessary to complete the task and how ethical this would be in representing School X.

Moreover, Jean Piaget and Lev Vygotsky are “influential” (Cakir, 2008, p. 193) in understanding the process of human learning, although hold contrasting opinions of cognitive development. For Piaget, children use “mental patterns” in biological development to understand new experiences “in relation to existing schemes” (Piaget, 1978, (in Cakir, 2008, p. 194). This suggests that new information fits into an existing schema, thus making it easier to learn, understand and retain data (Slavin, 1988, (in Cakir, 2008, p. 194). This idea is adopted in the critical incident as X Teacher reinforces prior knowledge of school rules to be an ethical and moral student in their response. This information is understood and retained into the existing schema of Pupil X, as they understand and listen to Teacher X considering different themes. Teacher X also adopts the idea of building on prior knowledge

through assessment of learning at the start of class, questioning pupils on knowledge of video games developed in previous lessons.

Similarly, Ausubel believes that meaningful information is “stored in networks of connected facts or concepts” known as “schemata”, or schemes (Cakir, 2008, p. 194). This highlights a link between theorists as they have comparable views that new information is better accommodated to existing schemes of knowledge. He states that new information must also be “meaningful to the learner” (Sousa et al. 2015, p. 627). This is reflected through the critical incident as Teacher X made the lesson relevant for the students by focusing on producing a video game, something that is meaningful and fun for young people. Moreover, Teacher X used a slideshow to display learning objectives to the class. This explores assessment for learning through the dual coding theory, which Parke and Paivio (1991, p.151) describe as “verbal and imaginal representations” that “encode word and object information”. The use of additional visual aids in teaching can be perceived as an engaging practice that activates prior knowledge through meaningful information, used for assessment of learning in class.

In contrast to Ausubel and Piaget, Vygotsky argues the cultural basis of cognitive development and the existence of a “zone of proximal development”. This refers to the idea that “a zone for each learner” (Vygotsky, 1978, (in Cakir, 2008, p.194) is formed and achieved when children develop from social behaviour. Cakir (2008, p.195) explains that Vygotsky believes what a student learns in school “influences the course of development” through “everyday experience and vice versa”. This could suggest that the student challenging Teacher X, “Why? Violence is real life, we should be taught about it”, offers an arguably fair perspective due to the possible learning experiences Pupil X witnessed or been a part of. This further suggests that the wellbeing of the student may influence their choice of ideas, something a developing teacher must take into account when practicing.

Vygotsky (in Fani and Ghaemi, 2011, p. 1151) also explains that “scaffolding”, using materials or interacting with students, has a positive impact of cognitive development when it

is “tailored to the learner”. This idea is evident in the critical incident as Teacher X scaffolds the pupil through a tailored response that guides moral decision making. Teacher X explained the project needed to have a positive impact and gave other examples of themes for Pupil X to choose. Likewise, Rosenshine (2012, p. 18) explains that scaffolding enables students to ask questions and solve problems “aided by a master who models, coaches, provides support”. This can further be recognised in the critical incident as Teacher X supports Pupil X in attaining the learning objective by going through the slideshow again.

Furthermore, this links to the humanist perspective of learning which, according to Derkx (2002 (in Veugelers, 2011, p. 2), is based on “personal responsibility” and “giving meaning” through teaching the *whole* child. Similarly, Veugelers (2011, p. 2) explains humanism as the progression of moral values taking place through meaning, developing “norms in groups, cultures and society as a whole”. This highlights Teacher X’s personal responsibility to advise Pupil X against the idea of using a theme of which “incites violence” which may also impact emotional wellbeing. Veugelers (2011, p. 5) agrees with this idea as he believes the curriculum should “translate knowledge”, allowing learners to identify values and morals which reflects their actions with “greater reason and responsibility”. This highlights the emphasis on educational institutions to influence students to positively take responsibility for their actions and decisions made. This could further imply that by allowing the Pupil X to choose a theme that has connotations of violence, it could be reflected in their actions within the school community. But would Pupil X develop violent tendencies from pursuing this theme?

Moreover, Guey et al. (2010, p. 113) explain that for a teacher to make a successful decision, they must consider the individual differences and needs of learner. This could refer to the socio-cultural development of Student X and their personal experiences, as to whether they are more likely to incite violent behaviour through pursuing a horror theme. This also relates back to Vygotsky’s idea that knowledge is interconnected between social, cultural and educational experiences, thus impacting on cognitive development.

Guey et al. (2010, p. 112) explains that humanism emphasises “decision making of problem solving” in relation to value systems, thus arguing the teacher’s role as “stimulator”. This suggests that Teacher X has an obligation to make an instant moral decision that reflects the values of School X, whilst focusing on positive learning and emotional wellbeing, evident in the critical incident. Additionally, as stimulator, Teacher X encouraged Student X to continue thinking of other ideas and engaged the student in examples from the slideshow presentation. This theory therefore suggests that, although teachers should encourage independent growth in learning similar to constructivism, developing moral responsibility in young people is an important aspect of being a teacher, thus ensuring to “display learners with unconditional genuineness” and respect which will be reflected by the pupils’ decisions and behaviour.

However, it must be questioned as to whether the student would be an unethical member of the school community for using a horror theme in the project? A horror can be defined by Carroll (1990, p. 14) as aiming to “raise a certain affect” of suspense, mystery, and shock to an audience. It could therefore be argued that “horror” may not encourage violence in the video game, but possible imagery of characters such as ghosts or monsters. This begs the question as to whether Teacher X made the right decision to respond “no” to Pupil X straight away. This could be interpreted as preventing Pupil X’s development of creative freedom instead of encouraging “maximum freedom or opportunities to learn” (Guey et al. 2010, p. 117) which both humanist and constructivist approaches believe. Therefore, it could be argued a horror theme may have been explored as an idea without any “death or killing” in the critical incident. Additionally, does this suggest a different approach to Teacher X’s practice?

A opposing theory that focuses on child development and behaviour through “sequences of reinforcement” (Murtonen et al. 2017, p. 115) is behaviourism. In the present day, Murtonen et al. (2017, p. 115) state that behaviourism can be deemed “inappropriate” through its long-enduring learning processes and repetitive practice. This theory contrasts

the new approaches, constructivism and humanism, which take into consideration deep cognitive learning; based on individual needs, reflective process and the growth of human expertise (Flavel, 1979, p. 909). This could support the idea that Teacher X engages in a behaviourist approach by preventing Pupil X's development of creative freedom and enforcing societal rules upon them.

In addition, Skinner (1993, (in Richelle, 2016, p. 9) argues that behaviourism put "psychology in the realm of natural sciences" through the use of techniques such as repetition and reinforcement that proved effective learning in science. It could be identified that reinforcement of moral decision-making is used effectively to guide Pupil X's learning in the critical incident. Additionally, Murtonen et al. (2017, p.124) state "knowledge and values" are enforced through behaviourism, which can be noticed in the critical incident and throughout each theory analysed. By referring to Donaldson's 4 Purposes of becoming "ethical and informed citizens" (Donaldson, 2015), Teacher X engaged in a traditional and behaviourist approach by reinforcing and instructing moral rules upon Pupil X.

Guey et al. (2010, p. 110) argue the "universal rule for effective instruction" is linked throughout each theory. This suggests that a level of respect is needed as a teacher to instruct effective behaviour management, no matter which teaching approach is adopted. This idea co-inside with teaching students ethical, moral problem-solving. Therefore, elements of constructivism, humanism and behaviourism can be recognised in Teacher X's approach, in the critical incident, through the connection of instructing ethical pedagogical practice guiding the student to moral decision-making.

Reflection

After researching and exploring various opinions of theorists, one must evaluate and reflect on next teaching and learning steps, based on the critical incident discussed. Tripp (2012, p. 39) argues that “critical reflection” allows us to examine our practice for data that will “confirm, modify or challenge our existing values position”. This suggests that to improve one’s practice, we must examine and challenge ourselves to improve and develop our professional training.

When referring to critical reflection, Brookfield (1998, p. 197) suggests reflecting through “four complementary lenses”. He argues that these lenses make practitioners more aware of “submerged and unacknowledged power dynamics”. This suggests that by using differing perspectives, the observer will impartially discover more about the behaviour in the critical incident. With reference to Brookfield (1998, p. 197), the perspectives are as follows: The lens of the practitioner, the lens of learner, the lens of colleagues’ perceptions and the lens of theoretical, philosophical, and research literature. As a result, these perspectives were considered and applied to best evaluate and reflect upon my next teaching and learning steps.

Although constructivism, humanism and behaviourism are three different theories of pedagogical practice, my theoretical research literature provides a connecting link in relation to the critical incident. Evaluation suggests that each theory links through the idea of developing students to become moral and ethical members of the community. Guey et al. (2010, p. 105) agrees that it is “difficult to identify exactly which specific approach practitioners adopt”, due to the interlinking beliefs. As a result, the critical incident (Appendix 4) offers differing teaching models to reflect upon, suggesting that overall Teacher X hosts a mix of approaches to pedagogy. However, it must be noted that Teacher X offered a more constructivist and humanist approach to the whole lesson by guiding the pupils learning’ to develop creative ideas, explained in the literature review.

Reflecting on this study, I have discovered that various teaching practices are interlinked with one another in a what Guey (2010, p. 105) suggests as a “Triarchal Instruction Model”. This is when principles of theories are integrated through the components involved in instructing learners: “objective, assessment, material, method, teacher” Guey (2010, p. 105). This will inform my own professional and personal development as I aim to keep an open-mind when adopting theories and techniques to my practice. I do not wish to limit myself to just one theory. Next steps will be to continue researching a variety of theories and techniques, similar to scaffolding and dual coding, that I can apply to my personal development.

Although sustaining an open-mind to theories, I would like to demonstrate a more constructivist and humanist approach to teaching, similar to Teacher X. I hope to encourage students to be “ambitious and capable learners”, as well as “ethical, informed” pupils that become “valued members of society” (Donaldson, 2015). As a result, another next step will be to further engage in Donaldson’s four purposes as well as research strategies that promote and maintain positive behaviour management, establishing a high quality learning environment as well as developing respect as a teacher.

Furthermore, if this incident were to happen to me, I may consider questioning the student further on how they would incorporate a horror theme into their video game. I would engage in a more humanist approach that might have enabled Pupil X to explore horror in a non-violent way, encouraging creative and independent learning explored in the theory. From Pupil X’s perspective, they wanted to explore an idea that interested them. I might have questioned Pupil X further on how they would incorporate horror into their game and explain ways that would not include violent killing. If Pupil X then suggested including violence after stating to avoid this, I would then engage in Teacher X’s guided approach of reinforcing ethical decision-making, and scaffolding them to other choices.

As a result, following this study, my next teaching and learning steps aim to engage a more constructivist and humanist approach to teaching. I will continue to be a reflective

practitioner that builds and examines knowledge about learners to improve pedagogical practice. As an “evolving educator” (Brookfield, 1998, p. 197), I will continue to observe teachers, at any given opportunity, and continue the process of self-observation and self-evaluation to better my own pedagogical practice. I will further research constructivist and humanist techniques to experiment with as I adapt and grow through teaching practice and keep an open-mind when understanding theories, behaviour and cognitive development.

Conclusion

To conclude, this study has evaluated and identified, from the perspective of non-participant observer, next teaching and learning steps based upon an observed critical incident. Although three separate theories were analysed, research identified a connection of ethical and moral instruction between each theory in relation to the critical incident. The study discovered that teaching theories are interlinked, thus a teacher adopts differing approaches in their practice.

As a result, my next teaching and learning steps are to: continue observing teachers and their relationships with students to reflect and learn from, keep an open-mind when researching pedagogical theories and techniques, develop a constructivist and humanist approach that uses strategies to promote and maintain positive behaviour, further engage with Donaldson’s four Purposes and finally, to continue self-observing and self-reflecting to improve my pedagogical practice.

This approach also reflects the Professional Standards for Teaching and Leadership, which guides teachers to embed the four purposes into lessons, as well as develop their own knowledge of teaching practice and subject area (Welsh Gov, 2020). By following these next teaching and learning steps, based on an observed critical incident, I hope to progress and mould into a reflective practitioner and develop my own hybrid of pedagogical practice.

Reference List

British Educational Research Association [BERA]. (2018) *Ethical Guidelines for Educational Research*. 4th edn. London: BERA.

Brookfield, S. (1998) 'Critically Reflective Practice', *The Journal of Continuing Education in the Health Professions*, (18), pp. 197–205.

Cakir, M. (2008) 'Constructivist Approaches to Learning in Science and Their Implications for Science Pedagogy: A Literature Review', *International Journal of Environmental & Science Education*, 3(4), pp. 193-206.

Carroll, N. (1990) *The Philosophy of Horror: Or, Paradoxes of the Heart*. London: Routledge.

Cohen, L. and Manion, L. and Morrison, K. (2006) *A Guide To Teaching Practice*. 4th edn. London: Routledge.

Cohen, L. and Manion, L. and Morrison, K. (2007) *Research Methods in Education*. Oxon: Routledge.

Donaldson, G. (2015) *Successful Futures: Looking at the Curriculum and Assessment Arrangements in Wales*. Welsh Government: ISBN.

Fani, T. and Ghaemi, F. (2011) 'Implications of Vygotsky's Zone of Proximal Development (ZPD) in Teacher Education: ZPTD and Self-scaffolding', *Procedia - Social and Behavioral Sciences*. (29), pp. 1549-1554.

Flavell, J. H. (1979) 'Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry', *American Psychologist*. 34(10), 906–911.

Gilakjani, A. et al. (2013) 'Teachers' Use of Technology and Constructivism', *Modern Education and Computer Science Press*. (4) pp. 49-63.

Guey, C. et al. (2010) 'A Triarchal Instruction Model: Integration of Principles from Behaviorism, Cognitivism, and Humanism', *Procedia Social and Behavioral Sciences*. (9), pp. 105-118.

Her Majesty's Inspectorate for Education and Training in Wales [Estyn] (2018) *A report on 'School X'*. Welsh Government: Estyn.

Mahoney, M. and Granvold, D. (2005) 'Constructivism and psychotherapy', *World Psychiatry*. 4(2), pp. 74–77.

Mercatoris, M. and Craighead, W. (1974). 'Effects of non-participant observation on teacher and pupil classroom behaviour', *Journal of Educational Psychology*. 66(4) pp. 512-519.

Murtonen, M. and Gruber, H. and Lehtinen, E. (2017) 'The Return of Behaviourist Epistemology: A review of learning outcomes studies', *Educational Research Review*. (22) pp. 114-128.

Nisbet, J. and Watt, J. (1984) 'Conducting Small-Scale Investigations in Educational Management', in Parke, J. and Griffiths, M. (2008) 'Participant and Non-participant Observation in Gambling Environments', *Esquire*. 1(1), pp. 1-14.

Parke, J. and Pavio, A. (1991) 'Dual Coding Theory and Education', *Educational Psychology Review*. 3(3), pp. 149-210.

Piaget, J. (1976) 'Piaget's Theory', in: Inhelder, B. et al. (eds) *Piaget and His School: Springer Study Edition*. Switzerland: Springer, Berlin, Heidelberg.

Rakjumar, R. (2020) 'Prevalence of Outward Deviation of Feet in Human Gait: A Non-Participant Observation', *International Journal of Physiotherapy and Research*. 8(1), pp. 3378-3387.

Rosenshine, B. (2012) Principles of Instruction. *American Educator*. 36(1), pp. 12-39.

Saunders, W. (1992) 'The constructivist perspective: Implications and teaching strategies for science', *School Science Mathematics*. 92(3), pp. 136-141.

Skinner, B. F. (1993) in: Richelle, M. (2nd edn) *B. F. Skinner: A Reappraisal*. New York: Routledge.

Sousa, A. et al. (2015) 'Using the Theory of Meaningful Learning in Nursing Education', *Rev Bras Enferm: Faculdade Internacional da Paraíba*. 68(4), pp. 626-635.

Tripp, D. (2012) *Critical Incidents in Teaching (Classic Edition): Developing Professional Judgement*. Oxon: Routledge.

Tripp, D. (1993) *Critical Incidents In Teaching: Developing Professional Judgement*. New York: Routledge.

Urquhart, C. (2015) *Observation research techniques*. Aberystwyth: Aberystwyth University.

Veugelers, W. (2011) *Education and Humanism: Linking Autonomy and Humanity*. The Netherlands: Sense Publishers.

Vygotsky, L. (1997) 'Interaction between Learning and Development', in: Gauvin, M. and Cole, M. (2nd edn) *Reading on the Development of Children*. New York: W. H. Freeman and Company.

Welsh Government, [Hwb] (2020) 'Professional standards of teaching', *Education Wales*.

Available at: <https://hwb.gov.wales/professional-development/professional-standards/#:~:text=The%20Professional%20Standards%20for%20Teaching%20and%20Leadership%20reflect,their%20work%20in%20relation%20to%20the%20professional%20standards.>

Wood, H. (2016) *Ticked Off*. USA: Crown House Publishing.

Appendices

The appendix includes typed up observation sheets from the observation day at School X.

Appendix 1

(Questions adapted from Fletcher Wood (2016))

Date and time, year group: 30 th September 2020 / 9:10 am / Year 10
Lesson details: (Context and focus -/AoLE/subject- is it near start of end of unit of study? Indoors/outdoors? Ability range? Any particularly relevant information). • Physics lesson • Indoors – first lesson of day • Reflects on previous lesson – Teacher goes through answering questions set for homework • Prior knowledge needed • Preparing for Physics GCSE exam end of year
Classroom culture (What is the classroom 'vibe.'? What do attitudes, dispositions, behaviours towards learning seem like at this point in time?) • Relaxed / Teacher speaks calmly • Chatty – first lesson of day • Banter between teacher and pupils/fun • But respect is shown, listen to teacher • One boy refuses to take coat off and settle not lesson • Pupils become engaged in learning • Positive reinforcement used when answering questions, "you lot are awesome"
Objectives (What happens in the environment that communicates the purpose of the experiences? What can be observed regarding the way lesson activities relate to these purposes?) • Pupils develop sound understanding of speed, distance and time equations • Uses questioning to assess previous learning of reflection, mirrors and echoes • Practice answering GCSE questions – go through their white physics work books • Teacher explains marks per question, showing pupils success criteria needed • Teacher addresses any confused questions asked by pupils • Teacher asks what pupils think need to improve on

Direction

(What can be observed that helps learners understand what they are engaging in? What in the environment helps them understand how to achieve well)?

- Teacher was going to use slideshow presentation to assist in answering homework questions, however there were technical problems.
- Teacher used whiteboard to display equations and answers to pupils
- Teacher used questioning to engage pupils – seemed effective
- At end teacher asks pupils to write down “something to improve on” – encouraging self-reflection and developing progress.

Access and challenge

(What can be observed in the environment that enables engagement of learners? What can be observed regarding levels of challenge?)

- Use of whiteboard to display answers
- Use of questioning to challenge pupils – called random names of students
- Guides students to answer, assists in developing confidence of subject
- Demonstration of equations helped students better understand
- Self – assessment – at the end of class, asked to answer two questions and then mark themselves with Teacher support.

Assessment

(Can anything be observed about how student’s existing knowledge is used? Can anything be observed regarding the development of knowledge during or after the experience)?

- Existing knowledge used to build upon information of speed, time and distance
- Homework was to answer series of questions to go through in this lesson – existing knowledge developed to be able to answer questions for homework – AoL
- Self – assessment – at the end of class, asked to answer two questions and then mark themselves with Teacher support.

Specifics / Critical Incidents

(Are there moments which cause you to consider aspects of practice when you come across them in future teaching)?

- Pupil at start refused to not take coat off - Teacher asks twice “not going to ask again” Pupil has also not done homework and tries to do in class. Teacher tells student off.
- Use of questioning – Teacher continually asks students “why?”, “how?”, “what does this mean?” Developing learning by challenging students’ knowledge.
- Use of positive reinforcement when answering questions, “you lot are awesome” – encouraging learning

- At end teacher asks pupils to write down “something to improve on” – encouraging self-reflection and developing progress.

CRITICAL INCIDENT IDENTIFICATION RECORD

Details relevant to the research context. Date/time. Age/Stage of group. People involved. Contextual information from field notes.	30 th September 2020 / 9:10 am / Year 10 / KS4 • Physics lesson • Indoors – first lesson of day • Reflects on previous lesson – Teacher goes through answering questions set for homework • Prior knowledge needed • Preparing for Physics GCSE exam end of year • Relaxed classroom culture
<i>What happened? A detailed description of what you observed and what thoughts on pedagogy and practice occurred to you as a result, looking towards your research.</i>	Pupil at start refused to not take coat off - Teacher asks twice “not going to ask again” Pupil has also not done homework and tries to do in class. Teacher tells student off. Teacher stays calm and politely asks misbehaving student to respectfully take coat off – student shows lack of respect. Teacher uses firm voice, implements behaviourist technique and says pupil can return at break to discuss if they want. Pupil takes coat off. Building upon existing knowledge – constructivism and cognitive development for GCSE Physics exam. Uses assessment of learning methods like questioning and giving homework tasks to test knowledge on speed distance and time. Piaget & Vygotsky. Use of open questioning – Teacher continually asks students “why?”, “how?”, “what does this mean?” Developing learning by challenging students’ knowledge - Helping students acquire basic skills or a better understanding to solve problems. Questioning – channels attention, generates energy – encouraging cognitive development –constructivism, Piaget & Vygotsky. Use of positive reinforcement when answering questions, “you lot are awesome” – encouraging learning – humanism. Guiding development, supporting student to develop as whole. At end teacher asks pupils to write down “something to improve on” – encouraging self-reflection and developing progress.

Appendix 2

(Questions adapted from Fletcher Wood (2016))

Date and time, year group: 30 th September 2020 / 10:00 am / Year 7
Lesson details: (Context and focus -/AoLE/subject- is it near start of end of unit of study? Indoors/outdoors? Ability range? Any particularly relevant information). • Art lesson • Indoors • Reflects on knowledge and work from previous lesson – Developing a drawing of sweets understanding shape, tone, line and texture • Beginners to art, mixed ability as some students more capable • Practicing developing skill in art
Classroom culture (What is the classroom 'vibe.'? What do attitudes, dispositions, behaviours towards learning seem like at this point in time?) • Relaxed / Teacher speaks calmly and politely • Chatty and interactive • Respect is shown, listen to teacher • Pupils become engaged in learning, "art is fun" • Positive reinforcement used when answering questions relating to task • Hands up to answer
Objectives (What happens in the environment that communicates the purpose of the experiences? What can be observed regarding the way lesson activities relate to these purposes?) • Slideshow starts off presenting learning objectives to class • Pupils develop sound understanding of tonal value, line, shape and texture • Uses questioning to assess previous knowledge from last lesson - AoL • Working through their art books • Teacher addresses any confused questions asked by pupils, guides learning • Mini drawing tasks at start to get students engaged • Use of Hue for practical demonstration
Direction (What can be observed that helps learners understand what they are engaging in? What in the environment helps them understand how to achieve well?) • Teacher uses digital media - slideshow presentation to assist in the lesson, with success objectives. Uses visual aid used to engage students understanding. Copy similar textures presented on slideshow. • Teacher used questioning to engage pupils – seemed effective

- After completing timed tasks, teacher asks to reflect and put hand up on number that represents your understanding, teacher counts to 10 - Teacher can gauge class ability. (Most students 6 +)
- Use of timed tasks to encourage drawing and stay on track with lesson plan – keep on target during lesson

Access and challenge

(What can be observed in the environment that enables engagement of learners? What can be observed regarding levels of challenge?)

- Use of digital slideshow to engage pupils and Hue for demonstration – very interactive
- Use of questioning to challenge pupils learning
- Guides students to answer, assists in developing confidence of subject
- Live practical demonstration of drawing using Hue – very effective students engaged and intrigued, keen to continue their drawings.
- Self – assessment – Teacher counts to 10 and pupils raise hand on which number represents best understanding - Teacher can gauge class ability. (Most students 6 +)

Assessment

(Can anything be observed about how student's existing knowledge is used? Can anything be observed regarding the development of knowledge during or after the experience?)

- Existing knowledge used to build upon information of tone, line, shape and texture.
- Existing knowledge developed to be able to answer questions in class from previous lessons – Assessment of Learning, and build upon sweet drawing.
- Self – assessment – Teacher counts to 10 and pupils raise hand on which number represents best understanding – Teacher can gauge class ability. (Most students 6 +)

Specifics / Critical Incidents

(Are there moments which cause you to consider aspects of practice when you come across them in future teaching?)

- Live practical demonstration of drawing using Hue – very effective students engaged and intrigued, keen to continue their drawings – very digitally interactive – effective.
- Use of questioning – “why do we use this technique?”, “how does it make you feel?”, “what can be done to improve?” Developing learning by challenging students' knowledge. Use of positive reinforcement when answering questions and completing the drawing task - “looking really good guys”, “good work” – encouraging learning.
- After completing timed task, teacher asks to reflect and put hand up on number that represents your understanding, teacher counts to 10 - Teacher can gauge class ability. (Most students 6 +)

CRITICAL INCIDENT IDENTIFICATION RECORD

Details relevant to the research context. Date/time. Age/Stage of group. People involved. Contextual information from field notes.	30 th September 2020 / 10:00 am / Year 7 / KS3 • Art lesson • Indoors • Reflects on knowledge and work from previous lesson – Developing a drawing of sweets understanding shape, tone, line and texture • Beginners to art, mixed ability as some students more capable • Practicing developing skill in art • Relaxed and fun classroom culture, teacher speaks calmly and politely to the class.
<i>What happened? A detailed description of what you observed and what thoughts on pedagogy and practice occurred to you as a result, looking towards your research.</i>	Live practical demonstration of drawing using Hue was very effective and students were engaged and intrigued. Pupils were keen to continue their drawings – very digitally interactive – effective. Making the information meaningful and relevant to the learner, exploring Ausubel, constructivism theory. Use of questioning – “why do we use this technique?”, “how does it make you feel?”, “what can be done to improve?” Developing learning by challenging students’ knowledge. Questioning students generates energy which further encourages cognitive development, guiding learners - scaffolding – cognitive theory / constructivism, Piaget & Vygotsky. Also incorporating positive reinforcement when answering questions and completing the drawing task - “looking really good guys”, “good work” – encouraging learning. – humanism/constructivism After completing timed task, teacher asks pupils to reflect and put hand up on number that represents their understanding, teacher counts to 10 - Teacher can gauge class ability. (Most students 6 +) This encourages student to reflect on their progress and learning experience – humanism approach.

Appendix 3

(Questions adapted from Fletcher Wood (2016))

Date and time, year group: 30 th September 2020 / 11:05 / Year 7
Lesson details: (Context and focus -/AoLE/subject- is it near start of end of unit of study? Indoors/outdoors? Ability range? Any particularly relevant information). • Spanish lesson • Indoors • Beginners to Spanish, mixed ability • Practicing developing verbal sounds/accent and understating basic language • AoL – Teacher reflects on knowledge and work from previous lesson of specific words
Classroom culture (What is the classroom ‘vibe.’? What do attitudes, dispositions, behaviours towards learning seem like at this point in time?) • Stand up when teacher walks in, then sit – more structured teaching approach • Respect is shown, listen to teacher • Seating plan – Boy/girl – mix up every 4 weeks • Positive reinforcement used when answering questions • Hands up to answer
Objectives (What happens in the environment that communicates the purpose of the experiences? What can be observed regarding the way lesson activities relate to these purposes?) • Slideshow starts off presenting learning objectives to class and words/language they aim to achieve by end of lesson (hello, my name is... how are you etc) • Pupils develop a confidence with the “Spanish routine” - sound understanding of pronouncing words and can apply talking to the person next to them • Uses questioning to assess previous knowledge from last lesson - AoL • Teacher addresses any confused questions asked by pupils, guides learning • End of class, goes through who’s completed homework task and awards points.
Direction (What can be observed that helps learners understand what they are engaging in? What in the environment helps them understand how to achieve well)? • Objectives and success criteria present on slideshow at start of lesson – AfL • Teacher uses digital media - slideshow presentation to assist in the lesson, with success objectives. Uses visual aid used to engage students understanding. Explanation of how to pronounce different words and why

- Use of repetition to learn words, teacher says it and students copy
- Teacher used questioning to engage pupils – addresses learners directly
- Handouts that were stuck in workbooks with Spanish words on – unfortunately, some pupils had the wrong handouts so the lesson was disrupted for the teacher to get the right resources.
- Working in pairs to practice speaking to one another – developing confidence in the language and progression of 'group' work skills

Access and challenge

(What can be observed in the environment that enables engagement of learners? What can be observed regarding levels of challenge?)

- Use of slideshow as visual aid engage pupils in pronunciation and understanding of words – very interactive
- Use of questioning to challenge pupils learning, "how do you say?"
- Use of repetition to learn words, teacher says it and students copy, this technique is used throughout class. Teacher gets individual students to repeat in front of class.
- Guides students to answer, assists in developing confidence of subject
- End of class, goes through who's completed homework task and awards points.

Assessment

(Can anything be observed about how student's existing knowledge is used? Can anything be observed regarding the development of knowledge during or after the experience?)

- Pair up and practice having basic conversations with each other.
- Use of repetition to develop and assess learning. Teacher gets individual students to repeat in front of class. This technique is repeated through the lesson.
- Existing knowledge used to build upon new information
- Existing knowledge developed to be able to answer questions from previous lessons – Assessment of Learning
- By the end of class they had reached the objective of being able to remember, pronounce the new words.
-

Specifics / Critical Incidents

(Are there moments which cause you to consider aspects of practice when you come across them in future teaching?)

- Use of repetition to develop and assess learning. Teacher gets individual students to repeat in front of class. This technique is repeated through the lesson.
- Use of questioning – "what does this mean?" "how do we pronounce, how are you?" Developing learning by challenging students' knowledge. Use of positive reinforcement when answering questions correctly, encouraging learning.
- One student hadn't finished all homework as didn't have access to a printer at home – Teacher didn't give reward points. This could be seen as unfair, some pupils don't have same access as others (experiences at home), does this knock the student's confidence and wellbeing?

CRITICAL INCIDENT IDENTIFICATION RECORD

Details relevant to the research context. Date/time. Age/Stage of group. People involved. Contextual information from field notes.	30th September 2020 / 11:05 / Year 7 / KS3 • Spanish lesson • Indoors • Beginners to Spanish, mixed ability • Practicing developing verbal sounds/accent and understating basic language • AoL – Teacher reflects on knowledge and work from previous lesson of specific words • Traditional approach to teaching - Stand up when teacher walks in, respect is shown, listen to teacher • Seating plan – Boy/girl – mix up every 4 weeks
<i>What happened? A detailed description of what you observed and what thoughts on pedagogy and practice occurred to you as a result, looking towards your research.</i>	Use of repetition to develop and assess learning. Teacher gets individual students to repeat in front of class. This technique is repeated through the lesson. As well as boy/girl seating, this could be seen as behaviourist approach. Repetition reinforces – conditioning students? Use of questioning – “what does this mean?” “how do we pronounce, how are you?” Developing learning by challenging students’ knowledge. Use of positive reinforcement when answering questions correctly, encourages learning – humanism/constructivism approach recognized here. One student hadn’t finished all homework as didn’t have access to a printer at home – Teacher didn’t give reward points. Is this a fair decision as the student is at an unfair advantage due to no fault of their own. This could be seen as unfair, some pupils don’t have same access as others (experiences at home), does this knock the student’s confidence and wellbeing?

Appendix 4

(Questions adapted from Fletcher Wood (2016))

Date and time, year group: 30 th September 2020 / 13:40 / Year 9
Lesson details: (Context and focus -/AoLE/subject- is it near start of end of unit of study? Indoors/outdoors? Ability range? Any particularly relevant information). • Art lesson • Indoors • Existing knowledge of art needed for lesson on understanding how video game is developed. • AoL – Teacher reflects on this knowledge at start of lesson • All seem very abled • Objective - to create their own video game that solves a problem through curriculum subjects: iCreate, iThink, iDiscover, iThrive or iCommunicate.
Classroom culture (What is the classroom 'vibe.'? What do attitudes, dispositions, behaviours towards learning seem like at this point in time?) • Relaxed / Teacher speaks calmly and politely • Chatty and interactive • Certain level of banter with pupils/fun • Respect is shown, listen to teacher • Positive reinforcement used when answering questions relating to task • No hands up -more casual, but no shouting over one another
Objectives (What happens in the environment that communicates the purpose of the experiences? What can be observed regarding the way lesson activities relate to these purposes?) • AoL - Slideshow starts off presenting learning objectives to class • Teacher uses questioning to assess previous knowledge from last lesson regarding video game production • Teacher addresses any confused questions asked by pupils, guides learning • To independently develop and create their own video game that solves a problem through curriculum subjects: iCreate, iThink, iDiscover, iThrive or iCommunicate. • End of class, share ideas with one another, ahead of next lesson where students will work in groups.
Direction (What can be observed that helps learners understand what they are engaging in? What in the environment helps them understand how to achieve well?) • Objectives and success criteria present on slideshow at start of lesson – AfL • Teacher uses digital media - slideshow presentation to assist in the lesson, with success objectives. Uses visual aid used to engage students understanding. • Students then given most lesson to freely develop creative ideas.

- Teacher used questioning to engage pupils – addresses learners directly
- They look at previous years' work of the video games, the different themes/genres chosen. Discussing what works well and what doesn't.
- Eventually working in groups – developing confidence in creative ideas and progression of 'group' work skills

Access and challenge

(What can be observed in the environment that enables engagement of learners? What can be observed regarding levels of challenge?)

- Use of digital slideshow as visual aid to engage pupils in understanding of the task and also examples of previous years' work - very interactive
- Use of questioning to challenge pupils learning, "why do you think they did that?" "what does it make you feel?", "what works well?"
- Guides students to answer, assists in developing confidence of subject
- "The whackier the better" – creative challenge posed to students, freedom to be artistic as they want
- End of class, goes through who's completed homework task and awards points.

Assessment

(Can anything be observed about how student's existing knowledge is used? Can anything be observed regarding the development of knowledge during or after the experience?)

- Existing knowledge from previous classes used to build upon new information of creating ideas.
- Existing knowledge used to be able to answer questions developed from previous lessons – Assessment of Learning
- By the end of class they had reached the objective of creating their ideas and sharing with the class.
- Teacher uses positive reinforcement "that's a great idea", "love that"

Specifics / Critical Incidents

(Are there moments which cause you to consider aspects of practice when you come across them in future teaching?)

- One pupil asks to do a horror theme – teacher says "no, incites violence" Pupil challenges teacher, "why?" Teacher responds that student should be ethical member of school community. What type of approach is this?
- Use of questioning – "what does this mean?" "how do we pronounce, how are you?" Developing learning by challenging students' knowledge. Use of positive reinforcement when answering questions correctly, encouraging learning.

CRITICAL INCIDENT IDENTIFICATION RECORD

Details relevant to the research context. Date/time. Age/Stage of group. People involved. Contextual information from field notes.	30 th September 2020 / 13:40 / Year 9 / KS4 • Art lesson • Indoors • Existing knowledge of art needed for lesson on understanding how video game is developed. • AoL – Teacher reflects on thus knowledge at start of lesson • All seem very abled • Objective - to create their own video game that solves a problem through curriculum subjects: iCreate, iThink, iDiscover, iThrive or iCommunicate. • Relaxed / Teacher speaks calm and politely
<i>What happened? A detailed description of what you observed and what thoughts on pedagogy and practice occurred to you as a result, looking towards your research.</i>	Teacher X began the art class by presenting a new project to the Year 9 students. The task was to create their own video game that solves a problem through curriculum subjects: iCreate, iThink, iDiscover, iThrive or iCommunicate. Teacher X spent the first 15 minutes explaining the task through a slideshow presentation and posed questions to the class regarding previously taught knowledge on who and what makes a video game. The slideshow explored examples of the themes and genre ideas for the video game and gave examples of work from previous years. Teacher X said to the class “The more creative you are, the better it’ll be and the higher a grade you’ll get. The whackier the better”. This encourages independent creative learners – relating to Donaldson. Also teacher scaffolds creative freedom – constructivism/humanism. When the class had begun working independently on ideas, Pupil X asks Teacher X if they can do a “horror” themed game. Teacher X responds, “No, we don’t want to solve any problems through death or killing and horror incites violence.” To which Pupil X replies, “Why? Violence is real life; we should be taught about it.” Teacher X explains that education aims to create “ethical social members of the school community” and that Pupil X needs to focus on problem solving through a positive learning experience within the game. Teacher X gives other examples of themes with reference to the beginning slideshow. Pupil X listens and continues to work on video game ideas, along with class. Was the teacher hosting a behaviourist approach, reinforcing societal norms? Or guiding the student to be ethical/moral when representing the school – constructivist and humanist approach to teaching.