

Is peer assessment an affirmative method of ensuring progress?

	Target	What I have done in this assignment.
Targed/Target 1	Ensure that personal observations and incidents are discussed clearly, with references to appendices that will support the reader's understanding. In order to develop your ability to link theory and practice, consider weaving the observation/critical incident throughout the discussion, rather than discussing elements such as social constructivism, classroom management and instructional scaffolding in general terms in the main, and then linking up with your incident at the end of each section.	I have attempted to discuss my observations clearly with appropriate reference to my appendices. Additionally, I have attempted to weave theory and practice alongside my observation in order to create a more holistic picture.

Aims

The topic that was of interest within this research study was that of peer assessment. The rationale behind the research into this subject area was largely down to the fact that, as a collective, my partner and I felt we had read a substantial amount of positive literature relating to the implementation of peer assessment. However, we felt these findings were not mirrored in practice within our classrooms. We therefore were sceptical as to whether this method of assessment had significant benefits or whether it was dependent on a given cohort. This perception is supported by Park (2010) who emphasises that teachers need to understand students' opinion regarding learning in order to foster more effective learning strategies, closing the gap, whilst maximising the effects of teaching.

Research Context

The class in question is a mixture of both year five and year six. On average, the class is of a slightly lower ability than the two other year five and six classes within the school. As a result, my research partner and I felt it would be of interest to see if the pupils were competent enough to be able to peer assess effectively. Likewise, we wanted to discover whether the feedback provided by peers was absorbed and carried forward by pupils. After some deliberation, we felt it would be beneficial to research whether or not peer assessment is an affirmative method of ensuring progress.

Overview of literature

Prior to the lesson study I undertook further research surrounding the topic in order to gain further understanding. According to Marsh (2008), assessment is a term typically used to describe the activities undertaken by teachers to acquire information about students' learning, knowledge, skills and attitudes. Formative assessment is considered a crucial instrument in enhancing students' learning (Black and Wiliam 2009; Wiliam 2011). A method of formative assessment commonly used in the classroom is that of peer assessment. This can be defined as the evaluation process in which the students assess their peers' works by using applicable criteria (Li, 2011). Likewise, Peng (2010) states that the process of peer assessment ought to involve students grading and/or giving feedback on their peers' work and being judges for the quality of the reviews they produced. As highlighted by Cassidy (2006) it is evident that peer assessment has become a very common method of assessment within the classroom. The main feature of peer assessment is essentially positioning the role of students as assessors of their learning (James et al. 2007).

Peer assessment offers a range of advantages. Research by Meusen-Beekman et al. (2016) has indicated that the introduction of peer assessment in primary education has the ability to result in long-term progression of pupils' self-regulation skills. Dochy and McDowell (1997) state that this method of assessment utilises students' involvement along with the knowledge and skills that they acquire. Peer assessment has also been said to encourage collaborative learning through discussion surrounding what represents good work (Spiller, 2009). Anderson and Krathwohl, (2001) add to this by highlighting that peer assessment essentially develops the critical thinking of learners, encourages social interaction and offers opportunities for self-criticism and self-correction. Prins (2005) states that these are all invaluable life-skills, which pupils will require in their practical lives. Meanwhile, for teachers, peer assessment helps reduce their marking workload as the process can be conducted independently without teachers' presence (Karaca, 2009).

Apart from the positive impact of peer assessment, there are also various disadvantages and difficulties that should be taken into account. Falchikov (1995) stresses that peer assessment should be undertaken by learners of equal level in order to evaluate each other's work. Likewise, Topping (1998, p.250) emphasises that peer assessment is "an agreement in which individuals consider the amount, level, value, worth, quality, or success of the products or outcomes of learning of peers of similar status". Both academics highlight the fact that pupils that undertake peer assessment should be of a similar academic standard. However, this is not always the case in an educational setting. In some instances, it is extremely difficult to ensure that all peers marking each other's work are of an equal academic level.

Likewise, Brown (2004) raises a common obstacle with the peer assessment method. He states that subjectivity has the potential to cause significant challenges in relation to the implementation of peer assessment. In many cases, pupils may not accurately assess themselves or others. It is likely in some situations that pupils do not want to correct their peers' error because it can threat the harmony of their relationship. This is echoed by the likes of Bostock (2000) and White (2009) who state that students may not like peers marking their work due to the prospect of being negatively or unfairly evaluated or misunderstood by their peers.

An additional complication that may arise as a result of the absence of teachers within the evaluation process, is that students may provide each other with false information (Majdoddin, 2010). It has been indicated that within this method of assessment, learners may be biased or favour a select few of their fellow peers. Thus, the potential of inaccurate feedback can have negative backwash effects on pupils (Hanushek et al, 2003). Critical voices such as Ballantyne et al. (2002) note that by handing the assessment process to students, the mechanism that teachers use to influence students' learning processes is essentially out of their control. Advocates of the method, however, note that being an assessor fosters cognitive skills and offers students insight as well as commitment to assessment standards and criteria (Topping 2009).

It should also be stated that research suggests that peer assessment can also cause concern to pupils as many lack confidence in their own assessment ability, therefore, the quality of the peer feedback is often quite poor (Prins et al. 2006; Tillema et al. 2011). Pupils often feel 'unqualified' to assess their peers and are in some cases reluctant to do so (Orsmond et al. 1996). However, prior experiences and training has the potential to make pupils feel more comfortable in their role as assessor (Van Zundert et al. 2010). It is essentially unrealistic to expect pupils to have knowledge about criteria and standards along with the ability to formulate and apply it without this training and practice (Sadler, 1989). Certain studies have indicated the significant benefits that occur as a result of communicating criteria and standards. When students knew and understood the assessment criteria and standards, they essentially performed better (Martin and Penrod 2006). This viewpoint is also supported by Rust et al. (2004) who stated that active student engagement in the creation of the assessment standards and criteria will aid students in acquiring tacit knowledge of standards and criteria. Thus, involving students in defining criteria has shown to be an effective way to develop students' understanding of criteria and standards (Sivan, 2000) and elementary school students' writing skills (Andrade et al. 2008).

Methodology

Both qualitative and quantitative data was collected concurrently guided by the research questions consisting of reflections, observation (non-participant), focus groups and interviews (see appendices 1 and 2). The quantitative component was present through the use of a Likert scale completed by the pupils as part of a questionnaire in order to gain insight surrounding their thoughts and feelings towards peer assessment. The qualitative component involved the incorporation of focus group interviews, comprising of three students per school. The interviews were audio-recorded in order to recall any missed information or to relisten to any key details provided by the focus group. This enabled us as researchers to gain a more in-depth understanding surrounding their perceptions, in turn, enhancing data richness. The participants for the focus groups were selected on the basis that they were the pupils who were most likely to give honest, in depth, concise feedback. This decision was also aided by our class mentors who helped recommended the sample selection. All but one of the pupils were from the highest achieving group. We felt this was an appropriate selection in order to gain the most out of the study and provide highly accurate, useful feedback to fellow teachers. The participants were a mixture of two male pupils and one female pupil within both sample groups. The rationale behind this decision was in order to increase fairness, generalisability and validity to our study wherever possible (Bell and Waters, 2018).

The methodology used within this research was that of Lesson Study (LS) research. LS is a form of action research, involving a pair or a group of teachers who collaboratively plan, teach, observe and analyse teaching and learning within a research lesson or a series of lessons. Over the cycle of research lessons, they may innovate or refine a pedagogical method that will improve pupil learning. If findings are of substantial use, they will then be shared with other professionals (Dudley, 2013). Robinson et al (2009) suggests that partaking in collaborative studies in the pursuit of enhancing teaching and learning is the single most impactful action a school leader can take to improve educational outcomes for pupils. Research indicates that LS supports teacher learning through critical discussion and knowledge construction in a social learning environment (Dudley, 2013). Additionally, it enables them to construct school professional learning communities and develop their professional knowledge in relation to their subject knowledge, pedagogical knowledge and pedagogical content knowledge (Cerbin, 2011; Coe, 2010; Lewis & Hurd, 2011). It has also been reported that LS develops learners' academic achievements as a result of teachers' learning (Cerbin, 2011). Although LS supports teachers' natural inclination that incessantly improves instruction by adopting new initiatives, it generally has a greater focus on pupils' thinking and learning (Lewis & Hurd, 2011).

LS more often than not follow a structured cycle. Firstly, a pair or a group of teachers, using data they have gathered from daily and periodic assessments, will aim to discuss and establish goals based upon desired objectives. Following this, teachers will identify a teaching method to develop that addresses the learning need in question. Subsequently, the teachers will identify around three case pupils to observe and in some cases interview. The teachers will then go on to co-create a lesson plan which closely analyses the effects of the approach trialled. Consequently, the teaching of research lessons will commence by one of the group members while the other/s observe the lesson, gathering data on learners' learning. An in-depth critique of the research lessons will then be conducted ensuring reflection, discussion and the sharing of information on what was learned along with its implications (Lewis & Hurd, 2011). Finally, teachers should share their findings with a wider audience of teachers.

Despite the benefits attributed to the practice of LS, there are also substantial challenges and contextual factors that hinder the successful and sustainable implementation of it (Adamson and Walker, 2011; Saito & Atencio, 2013). Research reveals that establishing sincere collaboration amongst teachers within a LS has the potential to be difficult and challenging (Adamson and Walker, 2011). In some cases, teachers often feel apprehensive about opening their classrooms to their colleagues. In other circumstances teachers may find difficulty in criticising one another and deliberately avoiding any kind of conflict amongst themselves (Adamson and Walker, 2011; Lewis and Hurd, 2011). An additional key challenge that has the potential to limit the effective practice of LS is that of time constraints (Lomibao, 2016). In many circumstances' teachers have distinct teaching sessions and responsibilities, thus, making it difficult to find a common time to effectively meet, engage in discussions and observe each other's classroom lessons.

In this lesson study reflections were captured using Gibbs (1998) reflective cycle (see appendix 3). This was effective as it enabled us to identify the positive and negative aspects of our lesson study, giving us opportunity to rectify and improve any weaknesses for the following lesson. The strengths of Gibbs's reflective cycle are that it is appraised as a well-structured and straight forward model to follow (Lawrence, 2008; Powley, 2013). However,

Moon (2007) states that the framework is useful at the beginning of reflective work but should be seen as a prop to be dispensed with as soon as possible. This is largely due to the fact that it provides little guidance to the achievement of better-quality reflection. In some instances, the model has the potential to encourage a relatively superficial form of reflection lacking in substantial depth (Moon, 2007).

Ethical Guidelines

Whilst conducting research within the school I ensured to adhere to the UWTSD Research Ethics and Integrity Code of Practice (2017), UWTSD Research Data Management Policy (2020), BERA (2018) and the EWC (2019). In order to mitigate risks to participants, I ensured to describe the main research procedures to participants in advance as well as obtaining written consent from both pupils and parents. I went on to state that their data would be treated with full confidentiality. Additionally, I informed the participants that they may withdraw from the research at any time and for any reason. Likewise, I explained to the participants that refusal to participate in the research would not affect their treatment or education.

The focus groups were undertaken in a room that was familiar to them. During the focus groups I gave participants the option of omitting questions, along with full permission to exit the room if they so wished. When debriefing the participants, I ensured to make it clear that the documents produced as a result of the focus group would not be publicly available and that notes would be locked away securely until they were needed. It was also explained that we would not be sharing any raw data with the participants however they will be welcome to a summary of the results.

Results and analysis

In order to test the proposed question of whether or not peer assessment is an affirmative method for ensuring progress, my partner and I co-created a lesson plan. The task in question required the children to write a diary entry in the English language, in relation to the 'best day of their lives' (see appendix 4). The success criteria created by my partner and I stated that the pupils, based upon their ability, had to incorporate a range of basic/ advanced literacy skills such as adjectives, verbs, similes and metaphors, along with the use of correct punctuation. Before the lesson began, my partner distributed success criteria along with a sheet of examples comprising of adjectives, verbs, similes and metaphors (see appendix 5). The pupils were grouped based upon their abilities. The success criteria mirrored these abilities and was differentiated three times by high ability, medium ability and low ability (see appendix 6). This decision is supported by Perrenoud (1998, pp. 93-94) who stated '...pupils do not have the same abilities, nor the same needs or the same way of working, an optimal situation for one pupil will not be optimal for another ...'. Providing a success criteria allows the pupils to peer assess effectively whilst promoting greater learner autonomy (Hattie, 2009; Stobart, 2008). Additionally, it essentially provides examples of their expected performance as a result of the lesson, 'closing the gap' between pupils' previous knowledge and their developing understanding (Glasson, 2009).

The first class observed, were well disciplined from the outset. They settled almost immediately allowing the teacher to briefly explain the task. The pupil's engagement levels during the task were good. However, it is important to highlight that the class were familiar with the process of peer assessing, thus, were moderately relaxed at the proposal of the

task. As the task was based upon a personal experience, it was extremely relevant to the pupils, in turn potentially influencing their levels of engagement to the task. Throughout the lesson the pupils remained on task, collaboratively sharing ideas, whilst engaging with the success criteria. This level of engagement could potentially be explained by a study undertaken by Rodriguez and Koubek (2019) that revealed that students reported considerable engagement when undertaking collaborative learning activities involving working with their peers on tasks.

In relation to the pupils learning, as worksheets were provided, it was evident from an observational perspective that they were reinforcing their previous knowledge of elements such as adjectives and verbs whilst learning new vocabulary. However, it must be stated that this may not have been the case in the absence of the worksheets. Due to time constraints, this was something that we felt needed to be in place.

Within the focus group, the selected pupils revealed that they felt they had learnt new vocabulary by marking their peers work. Thus, based on this response we felt the aims of the lesson study were achieved. This reinforces assessment for learning objectives as it encourages the involvement of pupils in their learning, providing opportunities for them to progress and learn through methods such as peer assessment and targeted feedback (Hodgson & Pile, 2010).

There were some aspects within the lesson that as a pair we decided to adjust for the subsequent lesson. One of these factors being, to provide a model example to the pupils before they began the task. The intention behind this would be to give the pupils a better understanding of the standard expected, in turn allowing them to begin the task promptly, allowing more time to peer assess. Exemplars are one of the tools used to translate an abstract concept into concrete manifestation of assessment standards. In Sadler's (1987, p.200) definition, exemplars are 'key examples chosen so as to be typical of designated levels of quality or competence'. However, concerns have been raised surrounding the use of exemplars. Such apprehensions include, copying content or language features, increasing reliance on teacher guidance and stifling pupils' creativity (Handley and Williams 2011; Orsmond et al 1997). Regarding the modification of our research tools, upon reflection we felt that our observational sheets included irrelevant information such as facial expression. Equally we felt there was an increasing focus on the task itself as opposed to the peer assessment element. Thus, in preparation for the subsequent lesson we decided to focus more on the pupil's attitude towards the peer assessment method as opposed to the actual task itself.

Another modification considered was in relation to the focus groups. Within the focus groups there were questions that required the pupils to complete a Likert scale. However, we felt that there was a missed opportunity for the pupils to expand on their reasoning behind their number on the Likert scale which was not included within the questionnaire. As a result, we decided when interviewing the second focus group we would provide an opportunity for pupils to expand and justify their number provided on the scale, supplying us with more in-depth information.

An additional crucial element we felt needed rectifying in preparation for lesson study two (LS2) is that of measuring progress. Again, due to time constraints, it was extremely challenging to measure whether students were progressing as a result of the peer

assessment process. Thus, we ensured to incorporate a plenary session at the end of LS2 in order to identify the pupil's progression in relation to the peer assessment task.

Within LS2, the pupils were evidently more unfamiliar with the process of peer assessing. From an observational perspective, their apprehensiveness was evident as a series of questions were asked when confronted with the task of peer assessing. The pupils took longer to settle as they appeared rather pressured to incorporate the elements present on the success criteria within the given time.

Engagement levels within LS2 varied. The higher achieving pupils evidently understood the task quickly as they began almost immediately. It was clear that such pupils were engaging with the success criteria whilst completing their work. However, the lower achieving pupils had a tendency to forget to adhere to the success criteria provided.

In relation to the peer assessment aspect, it became apparent that, as opposed to allowing their partner mark their work independently, they would co-mark one another's work. This suggested that they were concerned that their partner might have missed an element appearing on the success criteria. Additionally, upon reflection, there was possibly an element of fear present, stemming from the potential judgement of their peer, thus feeling the need to co-mark, justify any misunderstandings.

When interviewing the selected pupils this assumption was explained. All three pupils scored a 2/5 on the Likert scale when asked 'how comfortable do you feel when peers mark your work?'. Similarly, all three pupils stated that they would rather the teacher to mark their work as he/she is more knowledgeable, less likely to incorrectly mark their work and is trained to mark their work to a high standard. However, the ARG (1999, p.7) opposes this belief by stating that 'learners must ultimately be responsible for their learning since no-one else can do it for them'. This figure was further explained when asked if peer assessment effected their self-confidence, as two pupils stated that they often feel conscious of another pupil seeing and understanding their writing. Conversely, Biri (2014) findings suggests that in fact, peer assessment increased students' self-confidence and motivation levels.

Upon reflection it would have been more appropriate to randomly seat the children, this way it would have been a more accurate representation of the peer assessment process. However, as highlighted by Vygotsky (1978), within the classroom, the learning culture reflects a socio-constructivist view of education, with each child performing in his/her zone of proximal development. Vygotsky (1978), insists this should be guided by a more knowledgeable other, who may be the teacher or a peer.

Findings

Overall, the research findings suggest that the question of whether or not peer assessment is an affirmative way of ensuring progress is highly dependent on a number of factors such as age group and pupil ability (Towler, and Broadfoot, 1992). In this particular scenario progress appeared conditional on the ability and scope of knowledge obtained by the peer that was assessing an individual. Vygotsky's (1978) social development theory emphasises that pupils benefit from the interaction with more knowledgeable others. However, this factor is not always guaranteed within the peer assessment process as there are generally such a vast range of abilities comprising a classroom. This component was also highlighted within the interviews. An average score of three out of five was recorded on the Likert scale when

asked how comfortable the pupils felt when their peers marked their work. When invited to expand on their rationale behind their answer, it was highlighted that they felt it was largely dependent on who was marking their work. If they deemed the peer marking their work as more knowledgeable than themselves, they generally felt more at ease with the process and felt that they learnt more as a result. However, the vice versa applied if lower achieving students were to mark their work.

Another crucial finding from this research study was the increasing challenge facing pupils when attempting to provide constructive feedback to fellow pupils. It was highlighted within the focus groups that this was largely down to the fact that they did not feel equipped to do so. In many cases pupils felt that they did not have the subject knowledge or the scope of understanding to go ahead to provide sophisticated feedback to their fellow pupils. Towler and Broadfoot (1992) state that in such circumstances peer assessment has little constructive value as it fails to affect future decisions. Bennett (2011) also supports this notion and raises questions about whether some AfL strategies such as peer assessment are as effective as claimed. In many instances, AfL strategies such as peer assessment could be said to be implemented in a tokenistic way, with little opportunity for flexibility to address all learners' needs (Boyle and Charles, 2010). Thus, wherever possible peer assessment should be accompanied by action planning or target setting. Pupils must be trained to provide constructive feedback, understanding its purpose and have emphasised to them the basic concepts necessary for productive involvement. If this is absent within the process, initial enthusiasm will soon diminish in what is thought to be a trivial and pointless activity.

Despite this, it was evident from pupils' responses that they did in fact learn by marking their peers work. Kılıç (2016) underlines that peer assessment is effective in terms of providing students with skills such as realising their own learning and gaining a critical perspective. Özcan and Yurdabakan (2008) adds that peer assessment develops the communication skills of pupils.

Conclusion

To conclude, as previously emphasised, it is evident that the question of whether or not peer assessment is an affirmative method of ensuring progress relies on a multitude of internal and external factors. The principal determinant being the ability of paired pupils. As highlighted within the focus groups, it is apparent that if two pupils of contrasting abilities mark each other's work, the more able pupil is likely to be at a disadvantage. This is due to the fact that the less able pupil may not be able to identify areas for improvement e.g. incorrect spelling or punctuation. This reinforces the point made by Topping (1998, p.250) and Falchikov (1995), that peer assessment should be undertaken by learners of equal academic ability.

As with any study, sample size and demographics can limit the generalisability of findings. As a result, it is important not to apply all findings of this lesson study to other educational settings where these results may not apply. For example, within this study, the pupil sample came almost solely from a white ethnic background, of a Welsh medium school, ranging from 9-10 years of age. Therefore, upon reflection, in order to increase the generalisability of the findings, given the opportunity, it would have been beneficial to conduct the lesson study within a mixture of both Welsh medium and English primary schools including a mixture of demographics.

Another fundamental limitation to this lesson study was that of time constraints. Due to the nature of our proposed question, it would have been extremely beneficial to monitor the pupils' progress over a period of time, as opposed to within one lesson. However, due to the demands and daily requirements of a routine school timetable, it was necessary to utilise the time appropriately. Nevertheless, this factor greatly impacted the reliability and validity of our study as it was extremely difficult to identify whether or not the students progressed as a result of the peer assessment method. It was simply not concrete enough for pupils to verbally express that they felt that they had learnt something as a result of the peer assessment process. Given a greater timescale, the opportunity to repeat the lesson with the same cohort may have indicated whether there had been progression within the pupils' learning.

Upon further reflection, I would have ensured to pilot the method of observation with a small sample of pupils before undertaking the lesson study. This was largely due to the fact that practically, the observational sheets required too much irrelevant information for the time given. The use of symbols or codes would be beneficial when recording the observations as produced by the likes of Flanders (1970). This would have made the analysis process clearer as opposed to attempting to interpret notes that had been jotted down during the observations.

Another conclusion that can be made from this lesson study is the fact that feedback is essentially only as useful as the knowledge and understanding of the individual providing it. Pupils within this lesson study evidently had not acquired the fundamental skills and self-confidence to mark and provide beneficial feedback to peers. Bennett (2011) supports this standpoint by accepting that feedback appears to be effective in improving performance in simple tasks. However, he cites Kluger and De Nisi's research (1996), which indicated that the overall gains of students in the studies they reviewed were less than anticipated. This essentially suggests that AfL techniques such as peer assessment is still a 'work in progress'. Overall it was evident that the pupils learnt more by marking their peers work as opposed to taking on board the feedback provided by their fellow pupils regarding their own work.

Recommendations

In light of this research the first recommendation I would make would be to ensure to pair/group the pupils accordingly during the peer assessment process, based upon their academic ability. This way, the effectiveness, fairness and accuracy of the method is more likely to be maximised. Secondly, I would recommend that teachers define the task clearly. Pupils should know exactly what they are supposed to do before the task begins. If necessary, in order to further clarify, guidelines or models should be available to pupils (Sadler, 1987).

Additionally, based upon the research conducted, one of the major drawbacks of peer assessment is the threat of subjectivity. Thus, teachers should encourage impartial evaluation of fellow peers' work. In order to enhance the quality of pupil feedback, frameworks or sentence starters should be provided to pupils when providing feedback, such as "In order to improve you need to.... so that...". This will allow pupils to be specific avoiding such subjectivity or generic, superficial feedback. This has the potential to have a profound impact on the quality of their feedback and therefore their learning.

Finally, teachers should ensure beneficial goal setting through a follow-up task. It is not simply enough to provide pupils with a checklist and then leave them to their own devices. Systematic follow up has the potential to be accomplished through further methods such as a journal reflection, written feedback from the teacher, further discussion with the teacher or purposeful goal setting. Providing such measures are in place, peer assessment has the potential to be an effective method to enhance learning within the classroom.

References

- Adamson, B and Walker, E. (2011). Messy collaboration: Learning from a learning study. *Teaching and Teacher Education*, Vol. 27, pp. 29–36.
- Anderson, L. W., and Krathwohl, D. R. (2001). A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives: Complete Edition. New York: Longman.
- Andrade, H., Du, Y., and Wang, X. (2008). Putting rubrics to the test: The effect of a model, criteria generation, and rubric-referenced self-assessment on elementary school students' writing. *Educational Measurement: Issues and Practices*, Vol. 27(2), pp. 3–13.
- Assessment Reform Group. (1999). Assessment for learning: Beyond the Black Box University of Cambridge School of Education. Nuffield Foundation.
- Ballantyne, R., Hughes, K., and Mylonas, A. (2002). Developing procedures for implementing peer assessment in large classes using an action research process. *Assessment and Evaluation in Higher Education*, Vol. 27, pp. 427-441.
- BERA. (2018). Ethical Guidelines for Educational Research. [Online] Available at: https://www.bera.ac.uk/wp-content/uploads/2018/06/BERA-Ethical-Guidelines-for-Educational-Research_4thEdn_2018.pdf?noredirect=1, [Accessed: 03 February 2020]
- Bennett, R. (2011) Formative assessment: a critical review. *Assessment in Education: Principles, Policy & Practice*, Vol. 18:1, 5-25,
- Black, P and William. D. (2009). Developing the theory of formative assessment *Educational Assessment. Evaluation and Accountability*, Vol. 21 (1), pp. 5-31
- Brown, H. D. (2004). Language Assessment: Principles and Classroom Practices. New York: Pearson Education, Inc.
- Bostock, S.J. 2000 Computer Assisted Assessment - experiments in three courses. A workshop at Keele University.[Online], Available at: http://www.keele.ac.uk/depts/cs/Stephen_Bostock/docs/caa-ktn.htm [Accessed: 7 February 2020]
- Boyle, W. and Charles, M. (2010). Leading learning through Assessment for Learning?, *School Leadership & Management*, Vol. 30:3, pp. 285-300
- Biri, H. (2014). Contribution of peer assessment method to teacher education (Master Thesis). Karadeniz Technical University Institute of Educational Sciences, Trabzon
- Cassidy, S. (2006). Developing employability skills: Peer assessment in higher education. *Education and Training*, Vol. 48(7), pp. 508–517.

Cerbin B. (2011). Lesson study: Using classroom inquiry to improve teaching and learning in higher education. Sterling, VA: Stylus Publishing, LLC

Coe KL (2010). The process of lesson study as a strategy for the development of teaching in primary schools: A case study in the Western Cape Province, South Africa. PhD dissertation. Stellenbosch, South Africa: Stellenbosch University.

Dochy, F. J., & McDowell, L. (1997). Assessment as a tool for learning. *Studies in Educational Evaluation*, Vol. 23(4), pp. 279–298

Dudley, P. (2013). *Lesson study: A handbook*. [Online] Available at: <http://lessonstudy.co.uk/wp-content/uploads/2012/03/new-handbook-revisedMay14.pdf>

EWC. (2019). Code of conduct and practice [Online] Available at: [file:///C:/Users/ann/Downloads/J16540%20EWC%20Code%20of%20Professional%20Conduct E Web.pdf](file:///C:/Users/ann/Downloads/J16540%20EWC%20Code%20of%20Professional%20Conduct%20E%20Web.pdf), [Accessed: 03 February 2020]

Falchikov, N. (1995) Peer Feedback Marking: Developing Peer Assessment. *Innovations in Education and Training International*, Vol. 32:2, pp. 175-187.

Flanders, N. (1970). Analyzing Teacher Behavior. Addison-Wesley. Reading, Mass: P.171

Gibbs, G. (1998). Learning by doing: A guide to teaching and learning methods. Further Education Unit. Oxford Polytechnic: Oxford

Glasson, T. (2009). Improving student achievement: A practical guide to assessment for learning. Curriculum Corporation. Victoria, Australia.

Handley, K and Williams, L. (2011) From copying to learning: using exemplars to engage students with assessment criteria and feedback. *Assessment & Evaluation in Higher Education*, Vol. 36:1, pp. 95-108

Hanushek, Eric A., Kain, John F., Markman, Jacob M., and Rivkin, Steven G. 2003. "Does Peer Ability Affect Student Achievement?" *Journal of Applied Econometrics*, Vol. 18 (5), pp. 527–544.

Hattie, J. (2009) Visible learning: A synthesis of over 800 meta-analyses related to achievement, Routledge, London

Hodgson, C. and Pyle, K (2010). A Literature Review of Assessment for Learning in Science. National Foundation for Educational Research.

Hughes, A. (2003). Testing for Language Teacher. UK: Cambridge University Press

James, M. et al., (2007). Improving Learning How to Learn in classrooms, schools and networks (London: Routledge).

Karaca, E. (2009). An evaluation of teacher trainee's opinions of the peer assessment in terms of some variables. *World Applied Sciences Journal*, Vol.6(1), pp 123-128

Kılıç, D. (2016). An Examination of using self-, peer-, and teacher-assessment in higher education: a case study in teacher education. *Higher Education Studies*, Vol.6(1), pp. 136-144.

- Kluger, A.N. and DeNisi, A. (1996) The Effects of Feedback Interventions on Performance: A Historical Review, a Meta-Analysis, and a Preliminary Feedback Intervention Theory. *Psychological Bulletin*, Vol. 119, pp. 254-284
- Lawrence, P. (2008). Reflecting on events. *Emergency Nurse*, Vol. 15(9), pp.16-18.
- Lewis, C and Hurd, J. (2011). Lesson study step by step: How teacher learning communities improve instruction. Portsmouth, NH: Heinemann.
- Lomibao L. S. (2016). Enhancing mathematics teachers' quality through Lesson Study. *SpringerPlus*, Vol.5(1), pp.1590.
- Li, L. (2011). How Do Students of Diverse Achievement Levels Benefit from Peer Assessment? *International Journal of the Scholarship of Teaching and Learning*, Vol. 5
- Majdoddin, K. 2010. "Peer Assessment: An Alternative to Traditional Testing." *Modern Journal of Applied Linguistics*, Vol. 2 (5): pp. 396–405.
- Marsh, C. (2008). *Becoming a Teacher: Knowledge, Skill and Issues*. Australia: Pearson Prentice Hall.
- Martin, D., & Penrod, D. (2006). Coming to know criteria: the value of an evaluating writing course for undergraduates. *Assessing Writing*, Vol. 11, pp. 66–73
- Meusen-Beekman, K., Joosten-ten Brinke, D., and Boshuizen, H. (2016). Effects of formative assessments to develop self-regulation among sixth grade students: Results from a randomized controlled intervention. *Studies in Educational Evaluation*, Vol. 51, pp. 126-136
- Moon, J. (2007). Getting the measure of reflection: Considering matters of definition and depth. *Journal of Radiotherapy in Practice*, Vol.6(4), pp. 191- 200.
- Orsmond, P., Merry, S and Reiling, K. (1997) A Study in Self-assessment: tutor and students' perceptions of performance criteria. *Assessment and Evaluation in Higher Education*, Vol. 22:4, pp. 357-368,
- Özan, S., & Yurdabakan, İ. (2008). The effects of self and peer-assessment on basic communication skills achievement. *Tip Eğitimi Dünyası*, Vol. 27(27), pp. 27-39.
- Park, H,S. (2010). Teachers' and Learners' Preferences for Error Correction. Unpublished Paper of California State University
- Peng, J. (2010). Peer Assessment in an EFL Context: Attitudes and Correlations. In *Selected Proceedings of the 2008 Second Language Research Forum*, ed. Matthew T. Prior et al., pp. 89-107.
- Perrenoud, P. (1998) From formative evaluation to a controlled regulation of learning. *Assessment in Education: Principles, Policy and Practice*, Vol.5 (1), pp. 85-103
- Powley, D. (2013). Reducing violence and aggression in the emergency department. *Emergency Nurse*, Vol.21(4), pp. 26-29.
- Prins, et al. (2005). "Formative peer assessment in a CSCL environment: a case study." *Assessment & Evaluation in Higher Education*, Vol. 30(4): pp. 417-444.

Randy Elliot Bennett (2011) Formative assessment: a critical review. *Assessment in Education: Principles, Policy & Practice*, Vol. 18:1, pp. 5-25

Rodriguez, J. and Koubek, E. (2019) "Unpacking High-Impact Instructional Practices and Student Engagement in a Teacher Preparation Program," *International Journal for the Scholarship of Teaching and Learning*: Vol. 1

Rust, C., Price, M. and O'Donovan, B. (2003) Improving Students' Learning by Developing their Understanding of Assessment Criteria and Processes. *Assessment & Evaluation in Higher Education*, Vol. 28:2, pp. 147-164

Sadler, D. (1989). Formative assessment and the design of instructional systems *Instructional Science*, Vol. 18: pp. 119-144.

Saito E and Atencio M. (2013). A conceptual discussion of lesson study from a micro-political perspective: Implications for teacher development and pupil learning. *Teaching and Teacher Education*, Vol. 31, pp. 87– 95.

Sivan, A. (2000). The implementation of peer assessment: an action research approach. *Assessment in Education: Principles, Policy and Practice*, Vol. 7, pp. 193-213.

Spiller, D. (2009). Assessment Matters: Self-Assessment and Peer Assessment. Teaching Development, The University of Waikato.

Stobart, G. (2008) Testing times: The uses and abuses of assessment, New York/London: Routledge

Tillema, H., Smith, K., and Lesham, S. (2011). Dual roles – conflicting purposes: A comparative study on perceptions on assessment in mentoring relations during practicum. *European Journal of Teacher Education*, Vol. 34(2), pp. 139–159.

Towler, L., and Broadfoot, P. (1992) Self-assessment in the Primary School, *Educational Review*, Vol. 44:2

Topping, K. (1998). "Peer assessment between students in colleges and universities." *Review of Educational Research*, Vol. 68, pp. 249-276.

[UWTSD. \(2017\). UWTSD Research Ethics & Integrity Code of Practice \[Online\] Available at: https://www.uwtsd.ac.uk/media/uwtsd-website/content-assets/documents/academic-office/misc-forms/REICoP-17-20-v3-CYM.pdf](https://www.uwtsd.ac.uk/media/uwtsd-website/content-assets/documents/academic-office/misc-forms/REICoP-17-20-v3-CYM.pdf), [Accessed: 03 February 2020]

UWTSD. (2020). Research Data Management Policy. [Online] Available at: <https://www.uwtsd.ac.uk/library/research-data-management>, [Accessed: 03 February 2020]

Van Zundert, M., Sluijsmans, D., and Van Merriënboer, J. (2010). Effective peer assessment processes: research findings and future directions. *Learning and Instruction*, Vol. 20, pp. 270-279.

Vygotsky, LS. (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press

White, E. (2009). Student perspective of peer assessment for learning in a public speaking course. *Asian EFL Journal - Professional Teaching Articles*, Vol.33, pp. 1-36.

William, D. (2011). *Embedded formative assessment*. Bloomington: Solution Tree Press.

William Francis Boyle and Marie Charles (2010) Leading learning through Assessment for Learning? *School Leadership & Management*, Vol. 30:3, pp. 285-300.