

# A Case Study on the English Teachers' Knowledge of Formative Assessment

Alma C. Valendez

*Cebu Technological University, Cebu City, Philippines*

Date Submitted: February 05, 2022

Date Accepted: June 01, 2022

Originality: 90%

Plagiarism Detection: Passed

## ABSTRACT

Effective educational decisions founded on learning evidence make the learning process more relevant and significant to both the teacher and the learners. Corollary to this, instructional adjustments which cater to the diverse needs of the students require teachers to be substantially prepared in terms of content, process, and strategies so that students may be provided with the necessary learning scaffold and the desired learning outcomes may be achieved. Studies have advanced that the teacher's knowledge and preparation are directly linked to practice and are significantly related to student learning performance. Using The Knowledge of the Formative Assessment Survey instrument, the case study looked into the knowledge of formative assessment of the three English Teachers among the select State and Local Universities and Colleges in Cebu City. Findings revealed that teachers demonstrated knowledge of the functions of learning targets, such as setting the direction of learning, setting the criteria for success, and aligning instructional and assessment activities with the target, but not specifying learning outcomes. Also revealed is the teachers' knowledge of the essential focus of monitoring students' learning, such as the nature of students' activity, timely recording of data, and the alignment of activity with the purpose, but not on reinforcement and follow-up. Finally, the teachers demonstrated knowledge of the timeliness of giving feedback, its alignment with the learning target, and the amount of feedback given, but not in terms of assisting students' learning.

**Keywords:** *formative assessment, teacher's knowledge, instructional assessment*

## INTRODUCTION

Assessment as a system of collecting and analyzing student learning evidence for instructional decisions is an effective tool for learning. It elicits learning evidence that teachers can use to adjust their ongoing instructional procedures or students to adjust their current learning strategies (Popham, 2008). Its underlying idea is to use day-to-day learning evidence gathered through informal techniques such as conversations, class interactions, questioning, daily work, observation, interviews, and conferences to monitor student progress and modify or adjust instruction (Burke, 2010). As a system of collecting and analyzing student learning evidence for instructional decisions, assessment can be used as a learning tool that focuses on the teacher-student interactions from which learning evidence is implicitly and explicitly demonstrated.

Although the importance of formative assessment to student learning in higher education is generally acknowledged, assessment is predominantly summative (Yorke, 2003). At the basic education level, formative assessments are given at the end of every unit to test students' readiness for a summative assessment. Classroom teachers consider them as review lessons before any summative assessment to ensure high student assessment performance. This assessment practice among basic education teachers indicates the teachers' awareness of the value of formative assessment in scaffolding learning.

Assessment is recognized as an essential professional skill that teachers must possess and use in the classroom. As an integral component of the teaching and learning process, formative assessment provides information that will allow teachers to modify instruction and enable students

to strategize learning. Its integration into instruction is found to be beneficial to the learners as literature showed that the below-average and the low achievers benefited the most from formative assessment (Owen, 2016), and students who received feedback from teachers and peers had higher grades than those who did not (Pla-Campas et al., 2016). Feedback is found to be the most important contributing factor to learning because it enabled students to see their work through the lens of others and helped them review their work objectively (Owen, 2016). Hence, students preferred feedback that provides comments on the task (Ferguson, 2011). In another study, successful students view assessment as a process (Brookhart, 2001) of interpreting feedback and assessing and linking their accomplishments with broader capabilities, goals, and applications. In this context, detecting conditions that require formative instruction and gaining insights into students' cognitive processes in learning (Vogelzang & Admiraal, 2017) is a considerable challenge to teachers.

One significant finding that emerged from the study of Heritage et al. (2009) is the difficulty that teachers encountered in using assessment information to plan subsequent instruction. This difficulty was attributed by Widiastuti (2018) to teachers' perceptions and beliefs of how formative assessment is done in the classroom. The notion that beliefs inform practice and practice informs beliefs (Hall, 2011) typifies that the delivery of instruction reflects the teachers' knowledge of the content they are teaching. Correspondingly, how teachers utilize formative assessment in the classroom demonstrates their knowledge of it. While literature and studies on this topic were mainly focused on the impact of formative assessment on academic performance, the present study assessed the knowledge of the English teachers of formative assessment in terms of the learning target, monitoring student learning, and feedback.

## METHODOLOGY

The case study design is used in the study which aimed to describe the teachers' knowledge of formative assessment in the areas of the learning target, monitoring learning, and feedback.

This was conducted in selected Higher Education Institutions – State and Local Universities and Colleges in Cebu City. The inclusion/exclusion criteria included participants who have taken assessment courses in the baccalaureate or master's degree program, have at least 10 years in the teaching profession, use English as the medium of instruction, are teaching major subjects, and most importantly, are recommended by the Dean of the College to participate in the study. Four participants were initially considered for the study, but only three signed and returned the consent form. The consent form indicated that the participants have the right to "withdraw" from the study at any time. Similarly, the study protocol was submitted to and was granted clearance by the ethics research committee prior to the conduct of the study.

The 30-item survey questionnaire (Bremner, 2014) was used to gather the data. Questions 1-10 assessed teachers' understanding of learning targets, specifically how to share and clarify the learning targets with students. Questions 11-20 assessed teachers' understanding of how to monitor student learning toward the learning target, and questions 21-30 assessed teachers' understanding of how to provide meaningful feedback to students that will assist them in reaching the learning targets. The teachers' knowledge of formative assessment influences the process and delivery of learning in the classroom. It would be difficult to perform an activity that one does not believe in. Hence, the teacher's delivery of the learning tasks and activities in the classroom reflects their knowledge of the concepts.

Guided by the analysis and interpretation provided by the instrument, survey questionnaire items were categorized according to the essential concepts that teachers are expected to know to maximize formative assessment in classroom instruction. These concepts were discussed exhaustively and presented possible solutions to the gaps.

## RESULTS AND DISCUSSIONS

Knowledge is a precursor to use. Knowledge of formative assessment is necessary if teachers make effective use of it. One can only teach what one knows. Limitation in the content knowledge

directly impacts the delivery of instruction and the learning outcomes. In like manner, low knowledge of formative assessment adversely affects both the teaching and learning processes.

**Teachers’ Knowledge of the Learning Target**

Learning targets, also called learning intentions or goals, are instructional objectives that set the direction for all learning activities, interactions, and engagement in the classroom. Communicating expectations and outcomes is important (Kurasaki, 2019). They serve as a guidepost to teachers as they

plan and design instruction, monitor learning, and provide feedback on students’ learning.

In the study, knowledge of the learning target is determined by the teachers’ understanding of its role and function in learning. Items are categorized according to the following functions: learning target sets the learning direction, develops the success criteria, aligns instructional and assessment activities with the purpose, and specifies learning outcomes. Table 1 presents the data.

**Table 1.** Teacher’s Knowledge of the Learning Target

Learning Target	Case 1	Case 2	Case 3
Set Direction to learning	√	√	√
Set the Criteria for Success	√	√	√
Align Instructional and Assessment Activities with Purpose	–	√	√
Specify Learning Outcomes	√	–	–

Case 1. Data revealed that participant 1 recognized that learning targets set the direction to learning, set the success criteria, and specify learning outcomes, but failed to realize that they align instructional and assessment activities with the purpose.

Data showed that showing high and low-quality examples clarify the criteria for success in meeting the learning target. This is evident in the study when the teacher informed the class of her expectations of the different group presentations. These expectations motivated students to prepare accordingly to achieve the learning target. Likewise, formulating clear and specific learning targets was considered an essential skill that teachers must possess. When participant 1 was presented with the following statements,

*“Students will be able to create a model of a habitat that incorporates the four basic needs of an animal.”* and *“When provided with a word problem, I can use models (pictures, arrays, number lines, numerals) to accurately multiply.”*

She labeled them both as learning targets. The first states an activity, while the latter is a learning target. Thirdly, the study showed that teachers need to recognize that sharing and clarifying learning targets can also be done by letting the students discuss them. She identified that listening to the

students’ discussion is an opportunity for teachers to monitor student understanding of the learning target. Finally, the study revealed that there is a need for the class to constantly revisit the learning targets as instruction progresses to remind the student and the teacher of the direction set forth at the onset of instruction.

Case 2. Participant 2 recognized that learning targets set the direction for learning, set the success criteria, and should align with the instructional and assessment activities. However, she failed to recognize that the learning outcomes also need to be specified. Just like 1, participant 2 showed that listening to students talk about the purpose of the activity is an opportunity for teachers to monitor students’ understanding of the learning target. Writing it on the board is only helpful when students discuss it and understand what they are responsible for learning. Moreover, providing students with success criteria through models of high and low-quality outputs enabled them to review the areas needing improvement in their work before submitting it for final submission.

Similarly, data show that discussion of the learning targets should be done not only at the onset of instruction but throughout the learning process so that students can also keep track of their learning progress. Likewise, the case of participant 2 highlights the necessity of formulating clear and

specific learning targets, differentiating them from learning activities.

Case 3. Data show that participant 3 knows that learning targets set the direction of learning and the success criteria and must align with the instructional and assessment activities. She, however, failed to recognize that they also specify the learning outcomes.

The teacher identified two of the four indicators relating to the function of the learning targets in setting the direction for learning. Both indicators described that the teacher or the students can facilitate the discussion to promote students' understanding of the learning target. Indicators that were not recognized included letting students talk about the purpose of the activity and writing the learning target on the board as another way of sharing it with the class. By failing to recognize the latter, participant 3 missed the opportunity to clarify and patch up gaps between students' understanding of the learning targets and the different activities undertaken in class. On the other hand, recognizing them can increase students' motivation to learn and improve their learning performance.

Second, the teacher knew that showing high and low-quality examples clarify the criteria for success in meeting the learning targets because they provide students with models of expected output. This was demonstrated in the study when the teacher shared with the class the learning focus of the day, presented the concepts to be learned, and provided examples that illustrate the concepts. It was observed throughout the lesson that instruction was focused on the identified concepts to be learned. The gap in understanding was also readily clarified and addressed because the teacher and students have a common understanding of the learning target. Moreover, learning was evident at the end of instruction because the students could formulate generalizations on the concepts learned in class.

Third, the teacher believed that learning targets must be discussed throughout the lesson to clarify and remind teachers and students of what needs to be learned. Continually revisiting them throughout the lesson will show students how learning exercises and activities help them achieve the target. This means discussing the learning targets at the start of the lesson, explaining the relevance of the

learning activities and engagement to the learning targets, and reviewing them at the end of the lesson.

In specifying learning outcomes, participant 3 revealed similar findings to those of participants 1 and 2. Teachers need to develop the skill to formulate clear and specific learning targets and determine learning outcomes from statements of learning activities.

In summary, teachers demonstrated knowledge of the functions of the learning targets which include setting the direction of learning, setting the criteria for success, and aligning instructional and assessment activities. Specifically, better shared and clarified with students when they are discussed in class by either the teacher or the students and that the presentation of high and low-quality work samples help students understand the success criteria for meeting the learning target.

The participants, however, have problems with specifying learning outcomes. The identified gap can be attributed to the teachers' understanding of the terms. Teachers viewed outcomes and outputs as synonymous and used them interchangeably in the study. This notion must be addressed promptly because it is affecting the instructional process. Outcomes are competencies that students demonstrate at the end of every unit of instruction, while outputs are learning tasks and activities that provide learners with opportunities to practice and perform specific skills to achieve the desired outcomes. In like manner, identifying and articulating the learning outcomes at the start of instruction is crucial because it sets the direction of the entire teaching and learning process. The outcomes dictate the nature of learning tasks and activities that students undertake as instruction progresses and how learning at the end should be assessed.

Moreover, understanding the learning outcomes is crucial to learning. Studies have shown that setting and sharing success criteria at the start of the lesson help students understand the outcomes better (Leirhaug & Annerstedt, 2015) and give them a clearer and deeper sense of the task, thus, making learning more meaningful (Owen, 2016). Similarly, students who can articulate clearly the success criteria employ more varied learning strategies than their counterparts (Hattie and Donoghue, 2016); hence, produce better quality outputs (Pla-Campas et al., 2016). These

underscore the importance of students' understanding of the learning targets and; more so, the teacher's knowledge of them in connection to the assessment of learning.

**Teachers' Knowledge of Monitoring Learning**

Monitoring student learning checks on students' progress with the learning target. It helps ensure the attainment of the targets (Payne, 2018) as it allows teachers to understand how students learn, what they know and can do, and identify gaps in

learning. Moreover, monitoring student learning equires awareness of the learning target, keeping track of the learning progress, and planning so that instructional adjustments be made accordingly (Goldman & Pellegrino, 2015 & Rijal, 2017). Items were categorized according to what teachers look into when they monitor learning. They include students' activity, data recording, alignment of activity with the purpose, and reinforcement and follow-up.

**Table 2.** Teachers' Knowledge of Monitoring Learning

<b>Monitoring Learning</b>	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
Nature of students' activity	√	√	√
Timely recording of data	√	√	—
Alignment of activity with the purpose	√	√	—
Reinforcement and follow-up.	—	√	—

Case 1. Data showed that participant 1 knew that monitoring learning focuses on timely data recording, the nature of students' activity, and the alignment of activity with the learning target.

The study revealed that activities that elicit information about student progress in class are considered formative. Participant 1 monitored student learning not only by checking students' work one by one and recording them on time but also by identifying indicators that align activities with the learning target. Checking the alignment of learning activities with the learning target keeps the instruction on track. It also increases learners' motivation by allowing them to see the relevance of these activities to learning. Equally crucial in monitoring learning is the timely recording of learning evidence. Participant 1 recognized that real-time data recording is more accurate than recalling what transpired during the lesson. Lastly, findings revealed that knowing whether or not students know the answer to the question is equally important so that appropriate follow-up questions and their degree of difficulty can also be considered.

Case 2. Data show that the teacher knows that timely recording of data, alignment of activity with the learning target, and reinforcement and follow-up are essential in monitoring students' learning.

Participant 2 demonstrated knowledge in monitoring learning by identifying indicators that highlight the alignment of learning activities with the learning target. He also pointed out that any

activity used to elicit learning evidence, formal or informal, is considered formative. Moreover, he believed that on-time data recording is more accurate than recalling what transpired during the lesson. Participant 2 also acknowledged that asking follow-up questions enables teachers to find out more about what students know and that it is an effective monitoring tool only if the difficulty of these questions is appropriate to the student's level of learning. The teacher, however, failed to recognize that monitoring student learning ranges from knowing whether students know the correct answer to eliciting evidence of their understanding. Case 3. Data showed that the teacher knew that the nature of students' activity and reinforcement and follow-up is essential in monitoring students' learning. However, the teacher failed to recognize that timely data recording and activity alignment with the purpose is equally necessary for monitoring learning.

Participant 3 identified all the indicators relating to the significance of the nature of students' activity to monitor student learning. These include considering any activity that gathers information about students' progress toward the learning target as formative; conduct of formative assessment through written, oral, and performance activity; and holding up an answer for the teacher to see as a technique that quickly assesses what students know and do not know. However, she failed to recognize that a critical focus in monitoring student learning is ensuring that instructional activities are aligned with

the learning target. Similarly, she failed to recognize the importance of recording data on time and asking follow-up questions appropriate to the student's level of learning.

Participants 1 and 2 demonstrated knowledge of almost all of the essential focuses of monitoring students' learning. This finding supports Wasik et al. (2013) who noted that teachers needed guidance in constructing reinforcement and follow-up (open-ended questions and prompts) and building on the learner's responses to assist and sustain learning.

The nature and manner of giving reinforcements and follow-ups are crucial to learning because, for one, the teacher needs to know whether or not students know the answer to the question. Second, the teacher needs to also know what the students actually know about the topic. It is through knowing the student's knowledge of the topic can teachers design appropriate reinforcement activities and formulate follow-up questions that assist and sustain learning.

In contrast, participant 3 demonstrated knowledge only in one of the four essential focuses of formative assessment in monitoring learning. It can be noted that the participant's knowledge of monitoring learning is closely related to her knowledge of the learning target.

The focus of monitoring learning is the outcomes specified in the learning targets. This follows that knowledge of the learning targets redounds to the teacher's understanding of what to monitor during instruction. Moreover, if the teacher could specify the outcomes of the learning targets, she could readily determine which activity targets which outcome. Likewise, if the teacher knows the

direction of instruction, she can skillfully detect learning conditions that require formative instruction and, thus, provide appropriate scaffolding (Whyte & Deane, 2017).

One factor that may have contributed to the findings is the teacher's willingness to keep abreast with developments in the academe. The introduction of the term "outcome" in the formulation of the learning targets, for example, has caused so much confusion among teachers that it is often confused with "output." The terms may have some semblance but in character, they are different. This little difference spells a significant difference in the students' learning. Teachers must be constantly reminded that their professionalism in the area of pedagogy is positively correlated with students' academic performance (Ekperi et al., 2019 & Odiri, 2011).

**Teacher's Knowledge of Feedback**

Feedback is the information communicated to the learner intended to modify their learning strategies or behavior to improve learning. The feedback aligned with the learning target facilitates better understanding and increases the number of students who achieve the targets (Merbold, 2018). The study categorized items according to how feedback on students' learning is given.

Case 1. Data showed that the teacher knew that feedback assists learning and must be given at the right time. The teacher, however, failed to recognize that feedback should be aligned with the learning target and that it should be in manageable amounts.

**Table 3.** Teacher's Knowledge of Feedback

Feedback	Case 1	Case 2	Case 3
Feedback assists learning			
• Information on students' current performance in relation to the target	-	-	-
• Suggestions and comments for improvement	√	√	√
Feedback is given in a manageable amount.	√	√	√
Feedback is given at the right time.	√	-	√
Feedback is aligned with the learning target.	-	√	√

Participant 1 utilized discursal feedback when she evaluated students' ideas and insights on the merit of relevance and substance rather than on predetermined answers. The competencies that students demonstrated are proof that feedback, indeed, assists learning. In like manner, the teacher

recognized that the sooner students receive feedback, the more effective it is for learning. Immediate feedback directs students' focus on areas where improvements are necessary while their attention is still on the topic.

Participant 1, however, failed to recognize that too much feedback can be overwhelming. She needed to consider giving students just the right amount of feedback to move forward with minimal or no assistance from her. A manageable amount of feedback will help students focus on areas needing improvement. This way, when feedback becomes more focused, so is the students' attention.

Participant 1 also failed to recognize that feedback needs to be directed toward the intended learning, aligning with the learning target. Similarly, the teacher needs to realize that instructional plans must be adjusted according to student's needs and that all instructional and learning adjustments should be consistent with the learning target.

Case 2. Data showed that the teacher knew that feedback assists learning, should be given in manageable amounts, and should be aligned with the learning target. The teacher, however, failed to recognize that timing in giving feedback should also be considered.

Participant 2 recognized that giving timely feedback in manageable amounts is helpful. This means providing feedback during learning and giving students ample time to figure out the task. This also means ensuring that the required task is doable and that students can manage independently. Students should also be allowed time to continue trying on their own, especially if they are working on a relatively difficult task. He also believed that while giving immediate feedback allows students to connect with the activity, giving it too quickly can be overwhelming and frustrating.

Data showed, however, that the teacher failed to recognize that feedback helps students to be aware of where they are in relation to the learning target and what they can do to continue moving forward. Feedback should also raise students' awareness of their strengths and weaknesses to assist learning and identify actions that will improve learning performance. Similarly, he recognized that the learning target states the learning needs and to address the needs of the students, feedback for improvement should also be aligned with the learning targets. Likewise, if instructional plans are adjusted based on the needs and strengths of the students, so is the feedback to the learning target.

Case 3. Data showed that the teacher knew that feedback assists learning, is given appropriately,

and should be aligned with the learning target. The teacher failed to recognize that providing the right amount of feedback promotes learning.

The teacher in the study recognized that feedback provides positive comments and suggestions for improvement. This means that feedback is utilized for improvement and allows students to seek out and correct their errors. However, she failed to recognize that feedback also helps students know where they are in relation to the learning target and what they can do to continue moving forward in their learning.

The teacher also recognized that feedback should align with the learning target. Because the primary purpose of feedback is to close the gap between the student's current and target performance, teachers must be able to articulate the learning target well. This data is consistent with the participant's knowledge of the learning targets when she recognized that the teacher could facilitate the discussion of the learning targets. Discussion at the onset and constant revisiting of the learning target throughout the learning process ensures that both students and the teacher thoroughly understand the learning outcomes. Hence, whenever feedback is given, students and the teacher can readily check its alignment with the learning target.

Just like participant 2, participant 3 also believed that giving timely feedback in manageable amounts is helpful. Teachers must consider giving timely feedback to students so that misconceptions and understanding gaps can be avoided. Similarly, critiquing students' work based on the learning target is one way of managing the amount of feedback that teachers give their students.

In summary, the participants unanimously recognized that feedback assists learning by providing suggestions and comments for improvement and that feedback should be given in manageable amounts. Surprisingly, they failed to acknowledge that providing students with information about their current performance can also assist learning.

Providing comments and suggestions for improvement and providing information about the current performance help students achieve the learning target. The difference is that comments and suggestions focus on what students may do as a result of observation and scrutiny of output (output-oriented) while information about the current

performance is a description of a work that may result in the giving of comments and suggestions (process-oriented). The latter involves the students in the feedback-making process, where students are not merely recipients of ideas but contributors to the problem's solution. Guided by the teacher, students assess their work and strategize how they can improve it. This feedback-making process is more formative because students walk through the heart of the learning process.

Furthermore, communicating learning evidence to the learners is equally important as gathering them. It either drives or deflects the learning process (Brookhart, 2008). Some of the strategies that teachers can use to communicate feedback information are the following: highlight the quality of work against a set of criteria for students to see where they can strategize and effect improvements (Brookhart, 2008); and sequence feedback information to feedback components (Henley & DiGennaro Reed, 2015): one specific positive statement, one general positive statement, and one specific corrective statement using words that explicitly focus on the learning area or behavior needing improvement. More than the timely delivery, the focus, and sequence of feedback information were found to help assist student learning. Teachers must also refrain from giving general positive statements like words of praise that do not provide information specific to task performance. Instead, communicate feedback information by describing areas that need attention.

## CONCLUSION

Assessment and instruction are flip sides of the same coin. Complementary in nature, instruction is assessment, and assessment is instruction. Gaps in the teacher's knowledge of formative assessment may also be the gaps in the delivery of instruction which directly impact students' learning.

On the one hand, awareness of their knowledge enables teachers to reflect on their classroom practices and how these practices impact their students' learning. On the other hand, classroom practices provide rich information from which both teachers and school administrators could draw insights as regards the opportunities and challenges that abound in the teaching-learning process. Assessment of the teachers' knowledge is

one mechanism that learning institutions can utilize to determine the gaps in learning delivery. The same mechanism may also be used to gather baseline information relevant to formulating a faculty development plan which will redound to the improvement of the delivery of instruction.

In light of the findings, it is recommended that an assessment of teachers' understanding of the essential components of formative assessment may be undertaken and that regular updating of knowledge in this area is necessary. Recommendations for further studies include Teachers' Knowledge of formative Assessment Vis-A-Vis Instructional Practices and Comparative Study on Formative Assessment Practices of Teachers in Basic Education and Higher Education Institutions, which may help streamline assessment and instructional practices in basic education and higher education institutions.

## REFERENCES

- Bremner, A. L. (2014). Teachers' Knowledge of Formative Assessment Initial Instrument Validation Study. Boise State University, A Dissertation, Doctor of Education in Curriculum and Instruction. <https://scholarworks.boisestate.edu/td/802/>
- Brookhart, S. M. (2001). Successful Students' Formative and Summative Uses of Assessment Information. *Assessment in Education: Principles, Policy & Practice*, 8(2), 153–169. doi:10.1080/09695940123775
- Burke, K. (2010). *Balanced Assessment: From Formative to Summative*. Solution Tree Press.
- Ekperi, P., Onwuka, U., & Nyejirime, W. (2019). Teachers' attitude as a correlate of students' academic performance. *International Journal of Research and Innovation in Social Science (IJRISS)*, 3(1), 205-209. [https://www.researchgate.net/profile/Nyejirime-Wike-Young-2/publication/332409158IJRISSVolumeIII\\_Issue\\_I/links/5cb3310b92851c8d22ea24d8/IJRISS-Volume-III-Issue-I.pdf](https://www.researchgate.net/profile/Nyejirime-Wike-Young-2/publication/332409158IJRISSVolumeIII_Issue_I/links/5cb3310b92851c8d22ea24d8/IJRISS-Volume-III-Issue-I.pdf)
- Ferguson, Peter (2011). *Student perceptions of quality feedback in teacher education*. *Assessment & Evaluation in Higher Education*, 36(1), 51–62. doi:10.1080/02602930903197883
- Goldman, S. R.; Pellegrino, J. W. (2015). *Research on Learning and Instruction: Implications for Curriculum, Instruction, and Assessment. Policy Insights from the Behavioral and Brain Sciences*, 2(1), 33–41. doi:10.1177/2372732215601866
- Hall, G. (2011). *Exploring English Language Teaching: Language in Action*. Routledge.



- Hattie, J. A. C., & Donoghue, G. M. (2016). Learning strategies: A synthesis and conceptual model. *NPJ Science of Learning*, 1, 1-13. <https://www.nature.com/articles/npscilearn201613.pdf>
- Henley, A. J. & DiGennaro Reed, F. D. (2015). *Should You Order the Feedback Sandwich? Efficacy of Feedback Sequence and Timing*. *Journal of Organizational Behavior Management*, 35(3-4), 321-335. doi:10.1080/1608061.2015.1093057
- Heritage, M., Kim, J., Vendlinski, T., & Herman, J. (2009). From Evidence to Action: A Seamless Process in Formative Assessment? 28(3), 24-31. doi:10.1111/j.1745-3992.2009.00151.x
- Kurasaki, R. (2019). Scaffolding and Assessing Engineering Design: Effecting Program Change from Course Innovations. Poster session presented at the Assessment for Curricular Improvement Poster Exhibit at the University of Hawai'i at Mānoa, Honolulu, HI. [https://scholarspace.manoa.hawaii.edu/bitstream/10125/61869/1/Kurasaki\\_2019MolecularBiosciencesBioengineering.pdf](https://scholarspace.manoa.hawaii.edu/bitstream/10125/61869/1/Kurasaki_2019MolecularBiosciencesBioengineering.pdf)
- Leirhaug, P. E., & Annerstedt, C. (2015). *Assessing with new eyes? Assessment for learning in Norwegian physical education*. *Physical Education and Sport Pedagogy*, ( ), 1-16. doi:10.1080/17408989.2015.1095871
- Merbold, K. (2018). Assessing Undergraduate Dental Students' Exodontia Competencies by Employing a Novel Continuous Assessment Instrument. Theses and Dissertations. MSc in the Department of Dental Management Sciences, School of Dentistry, University of Pretoria. <https://repository.up.ac.za/handle/2263/69919>
- Odiri, O. E. (2011). The influence of teachers' attitude on students' learning of Mathematics in Nigerian secondary schools. *Journal of Research in Education*, 2(1), 15-21. [https://d1wqtxts1xzle7.cloudfront.net/61686013/The\\_Influence\\_of\\_Teachers\\_Atitude\\_on\\_Students\\_Learning\\_of\\_Mathematics\\_in\\_Nigerian\\_Secondary\\_Schools2\\_0200105-89675-1fh5kwd-with-cover-pagev2.pdf?Expires=1665719675&Signature=BIPtPLQjNTd2Ylc5sQEaPkd-6Db0bP-W-6FuXHpuRcmy3Kk693791sR695HqZvUynIIW4MY4y-hPZ0WdQPzqCMYJ6cYujFoX7r6l1DhrvmO4Zf5UOCTYeS6C17MWOgDSQuHcz2lpj0wU9Vsh1P7QLmccGE0d6WC1YQMmChwvXMTFWSficGrc5Tag--YkMRFBj18CBS9PPVWNP79LYpUF8umz5uK6F6uvnc9kzWseBijKBWf3h2MBaFdbvhKGB15lpLVGTpBsGxs0sE19SBqO3\(73rcj-hbRU7gPIAp-XE6zLdqpCSbEIE06LsM5Kt5J5IA04TbxpZqA\\_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA](https://d1wqtxts1xzle7.cloudfront.net/61686013/The_Influence_of_Teachers_Atitude_on_Students_Learning_of_Mathematics_in_Nigerian_Secondary_Schools2_0200105-89675-1fh5kwd-with-cover-pagev2.pdf?Expires=1665719675&Signature=BIPtPLQjNTd2Ylc5sQEaPkd-6Db0bP-W-6FuXHpuRcmy3Kk693791sR695HqZvUynIIW4MY4y-hPZ0WdQPzqCMYJ6cYujFoX7r6l1DhrvmO4Zf5UOCTYeS6C17MWOgDSQuHcz2lpj0wU9Vsh1P7QLmccGE0d6WC1YQMmChwvXMTFWSficGrc5Tag--YkMRFBj18CBS9PPVWNP79LYpUF8umz5uK6F6uvnc9kzWseBijKBWf3h2MBaFdbvhKGB15lpLVGTpBsGxs0sE19SBqO3(73rcj-hbRU7gPIAp-XE6zLdqpCSbEIE06LsM5Kt5J5IA04TbxpZqA_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA)
- Owen, L. (2016). Impact of Feedback as Formative Assessment on Student Performance. *International Journal of Teaching and Learning in Higher Education*. <https://files.eric.ed.gov/fulltext/EJ1111131.pdf>
- Payne, S. N. (2018). The effects of marketisation on pedagogic practice in the HE in FE classroom, and ways to create a positive change within that environment. Theses and Dissertations. Doctor of Education at the University of Leicester. <https://leicester.figshare.com/articles/thesis>
- Pla-Campas, G., Arumí-Prat, J., Senye-Mir, A. M. & Ramírez, E. (2016). *Effect of Using Formative Assessment Techniques on Students' Grades*. *Procedia - Social and Behavioral Sciences*, 228(), 190-195. doi:10.1016/j.sbspro.2016.07.028
- Popham, J. (2008). *Transformative Assessment*. Association for Supervision and Curriculum Development.
- Rijal, R. R. (2017). Factors Affecting Students' High and Low Learning Achievement. *Nepalese Journal of Educational Assessment*. [https://www.ero.gov.np/upload\\_file/files/post/1595313482\\_598772199\\_1587622596\\_1795486007\\_Journal\\_NJEA\\_2\(1\)\\_2017\(1\).pdf#page=92](https://www.ero.gov.np/upload_file/files/post/1595313482_598772199_1587622596_1795486007_Journal_NJEA_2(1)_2017(1).pdf#page=92)
- Vogelzang, J., & Admiraal, W. F. (2017). *Classroom action research on formative assessment in a context-based chemistry course*. *Educational Action Research*, 25(1), 155-166. doi:10.1080/09650792.2016.1177564
- Wasik, B. A. and Hindman, A. M. H. (2013). Realizing the Promise of Open-Ended Questions. *Reading Teacher*. [https://courses.edmedia.ericson.edu/eriksononline/CPC/2014\\_2015/Module1/Documents/Purposeful\\_Talk/promise\\_of\\_open\\_ended\\_questions.pdf](https://courses.edmedia.ericson.edu/eriksononline/CPC/2014_2015/Module1/Documents/Purposeful_Talk/promise_of_open_ended_questions.pdf)
- Whyte, B. & Deane, P. (2017). Best Intentions: Using Convergent Practices Divergently. *Teachers and Curriculum*. <https://files.eric.ed.gov/fulltext/EJ1149614.pdf>
- Whyte, B., & Deane, P. (2017). Best intentions: Using convergent practices divergently. *Teachers and Curriculum*, 17(1), 31-37. <https://hdl.handle.net/10289/11443>
- Widiastuti, Ida Ayu Made Sri. (2018). EFL Teachers' Beliefs and Practices of Formative Assessment to Promote Active Learning. *The Asian EFL Journal*, 20(5), 96-112. <https://www.asian-efl-journal.com/monthly-editions-new/2018-teaching-articles/volume-20-issue-5-2018/index.htm>
- Yorke, M. (2003). Formative assessment in higher education: Moves towards theory and the enhancement of pedagogic practice. *Higher Education*, 45, 477-501. <https://doi.org/10.1023/A:1023967026413>