

The impact of formative walk-throughs in advancing formative assessment and improving student performance

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Abstract

What students do in a classroom, their knowledge of why they are doing it and how to do it have a great impact on their performance. Understanding formative assessment and its appropriate application in class will lead to a whole school culture change focused on learning. This study explains the impact of formative walk-throughs in advancing formative assessment and improving students' performance. This explanatory case study seeks to establish the causal relationship between formative walk-throughs and application of formative assessment which would in turn lead to better students' achievement in a private school in Dubai, UAE. The results indicated the impact of formative walk-throughs on better application of formative assessment and the role of formative assessment in improving students' performance and creating motivated self-regulated learners.

Keywords: formative assessment, formative walk-through, school principal role, teachers' performance

1. Introduction

What students do in a lesson has the greatest impact on their performance and achievement. Whether they have the knowledge of what they are doing, how and why they are doing it, will for sure affect their learning. The principals and head of departments play a major role in that, by understanding formative assessment and its appropriate application in class and coaching teachers to use it effectively. Setting formative assessment as a school goal will lead to changing the whole school culture from one that is focused on evaluation to one that sees learning as its major target.

Principals have always used walk-throughs to evaluate performance in the classroom. These walk-throughs are traditional in nature because they mainly focus on strategies and practices used to deliver content. As principals observe, they gather evidence on effective teaching. Do teachers use different instructional strategies? Do they cater for different learning styles and use differentiation? Do they use cooperative learning? Do they manage time well? Are they well-prepared? Do they use critical thinking questions? Do they use formative assessment strategies?... and many other questions after which they give feedback to teachers in form of recommendations to improve their performance. This leads us to think that there is a set of best practices that improve students' performance regardless of content, skills or even students themselves, a conclusion that has been questioned and in a way led to see the problem in traditional walk-throughs and the need for formative walk-

throughs. A principal who wants to improve performance needs to look at learning from students' view point.

The purpose of this study is to explain the impact of formative walk-throughs in advancing formative assessment and improving students' performance. It is an explanatory case study that seeks to answer the following questions:

1. How does formative walk-through affect formative assessment application?
2. What impact does formative assessment have on students' achievement?

Convincing teachers that students are their partner in the teaching and learning process is a bit complicated. Making them understand that students are decision makers in this process and their awareness of the learning targets and what is needed to achieve is substantial. The rationale behind choosing this study in particular is to persuade principals and teachers to use formative walk-throughs to advance formative assessment which will in turn improve students' performance.

Two English teachers were selected from a group of 10 English teachers to participate in the study. The sample was chosen based on focus group discussion and the opinion of their head of department who classified them as well-performing ones. The study used focus group discussion to investigate teachers' understanding of formative assessment. Formative walk-throughs were conducted to the two teachers using the observation form designed by Moss and Bookhart (2009, p. 37-39) over two phases. Students' work in phase one and phase two was compared to study changes in performance whether positive or negative.

2. Theoretical Framework

Imagine when the teacher gives the students the power to form their own learning; wouldn't this be more powerful than directed learning activities? Students are mostly worried about marks because assessment is understood as giving judgment about a student's work by giving him/her a mark about his/her performance. Now, education is more directed into supporting teachers to understand the importance of knowing how their students think rather than whether the students know the right answer, and making teachers feel the power of student – teacher communication to reach better performance. Many studies have been done for the last few years discussing formative assessment and its impact on students' learning (Brookhart, Moss & Long, 2008; Carless, 2007; McDowell et al., 2006; Moss & Brookhart, 2009; Nichol & Macfarlane Dick, 2006).

2.1 Formative assessment and its misconceptions

Asghar, M. (2013) stated that “formative assessment is a pedagogic practice that has been the subject of much research and debate, as to how it can be used most effectively to deliver enhanced student learning Often described as a complex concept it embraces activities that range from facilitating students understanding of assessment standards, to providing formative feedback on their work; from very informal opportunities of engaging in conversations, to the very formal process of submitting drafts of work”.

Formative assessment as stated by the National Education Association (2003) is an

“instructional tool” used by teachers and students during the learning process and an “accountability tool” which determines if learning has happened or not. Moss and Brookhart (2009, p.6) highlighted the impact of formative assessment on teachers and students in the definition they provided for formative assessment as “ an active and intentional learning process that partners the teacher and the students to continuously and systematically gather evidence of learning with the express goal of improving student achievement”.

Kulasegaram and Rangachari (2018) consider formative assessment as an assessment that gives feedback to encourage mastery of content and skills, change students’ attitudes, enhance students’ growth and develop and improve their performance. Harlen (2006, p.104) defined it as any type of assessment that “promotes learning by using evidence of where students have reached, in relation to their goals, to plan the next steps in their learning and know how to take them”.

Formative Assessment main purpose is to improve students’ learning and achievement by checking their understanding all the way; it is assessment for learning not assessment of learning like the summative assessment. Formative assessment is more than a learning process; it is a partnership, a collaborative work between teachers and students. It helps them see their target and head towards it taking into consideration their learning needs. Information taken from formative assessment is used by teachers and students to adjust the learning process and modify based on needs to continuously improve (Moss & Brookhart, 2009).

Formative assessment aims at helping students learn by using the curriculum objectives to self-regulate their learning and develop their personalized targets (Harris & Brown, 2016). It is as explained by Alzina (2016, p.11) “about students bettering themselves and feeling empowered to improve”.

When asking teachers if they apply formative assessment in their classes, the immediate answer comes with confirmation. Try to engage them in a conversation about their understanding of formative assessment and many misconceptions will emerge. Some teachers think that formative assessment is a type of tests that teachers use to know what students have learned. Others think that formative assessment is used to improve a program or redesign a lesson. While few more believe that learning is driven by assessment.

Thinking of those misconceptions should encourage school principals to address this issue more seriously and support teachers to understand the main elements of formative assessment, and know the questions they should ask themselves when planning for learning.

2.2 The elements of formative assessment

For a better application of formative assessments, its interrelated six elements should be taken into consideration.

- “Shared learning targets and criteria for success
- Feedback that feeds forward
- Student goal setting
- Student self-assessment

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- Strategic teacher questioning student engagement in asking effective questions”

(Moss & Brookhart, 2009, p.5-6)

Formative assessment or assessment for learning as used by Kulasegaram and Rangachari (2018) should help students:

- Know where they are in reaching the objectives.
- Identify what to do more.
- Transfer their knowledge and skills to life situations.
- Gain more in-depth understanding of the material.
- Personalize their learning.

Gustafson (2018) indicated that failing to create a well-structured formative assessment system will affect the entire school system. He emphasizes that creating good formative assessments that use students’ time properly, link transparent learning to clear learning targets and encourage students will definitely improve students’ learning.

Helping students understand the learning targets and success criteria; and answer the questions of where they are now, where they are going, and what strategies they need to reach their goals will guide students and teachers’ work. Those questions also can be used by heads and principals in supporting teachers to use formative assessment in class. Teachers will have clearer plan as what goals they want their students to reach, monitor students’ progress towards those goals and enhance students’ abilities in being self-

assessors and self-regulators.

2.3 The effects of formative assessment on student learning and teacher work quality:

“...formative assessment works. It works because it has a direct effect on the two most important players in the teaching-learning process: the teacher and the student” (Moss & Brookhart, 2009).

Recent studies have clearly stated the impact of formative assessment on students’ learning and on creating self-regulated and motivated learners. Brookhart, Moss and Long (2008) discussed a study done in Armstrong District in Western Pennsylvania over three years. The study proved that a focus on formative assessment increases students’ achievement, motivation and engagement. It contributes to students’ self-efficacy and feeling that they are competent and have the tools to progress, that they have self-regulation and they own their learning. Teachers who participated in the study emphasized the positive effects they noticed on students’ learning and on themselves in their responses to a survey. One of them even noted, “I have learned not to underestimate the hand that students play in their own learning. . . . If students are taught the importance of using specific strategies, if they understand how to use those strategies, and if they understand what they do well and what they need to work on, they will be empowered to improve.”

Nicol & Macfarlane-Dick (2006) claimed that formative assessment advances students’ self-regulation by helping them set their own goals and find different resources and strategies that lead them to the achievement of the goals using continuous constructive

feedback. Bloom (1984) declared that students in classes that work on formative assessment are more motivated; they spend more time on their tasks and are better achievers. Formative assessment affects the learning of all students and in particular low achievers who seem to grasp a deeper understanding of their own learning and as a result their achievement rises (Black & Wiliam, 1998).

In their research that investigated the effects of formative assessment on students' achievement in a context-based chemistry subject, Vogelzang and Admiraal (2017) concluded the significant positive effect that formative assessment has on students' achievement and that it stimulates the feedback between teachers and students. Kulasegaram and Rangachari (2018) also reported that formative assessment enhances and enriches students' learning. They argued that learning becomes meaningful when students are given the "opportunity to personalize their learning through assessment" (Kulasegaram & Rangachari, 2018, p. 6).

In a quasi-experiment study done to understand formative assessment "by analysing the interplay between a formative assessment intervention and aspects of general instructional quality" (Pinger, Rakoczy, Besser & Kleime, 2018, p.61), Pinger et al. (2018) found that implementing formative assessment tools is not enough to change instructional quality. They explained that intervention with well-structured materials and guidelines does not only affect instructional quality, it also improves students' achievement.

What primarily influences student achievement is the quality of work of teachers

which is in turn affected by formative assessment (Black & Wiliam, 1998; Thompson & Wiliam, 2007; Elmore, 2004). Using formative assessment can cause a dramatic change in teachers' performance. It is a promising tool to promote the teaching and learning process (Pinger et al., 2018). Alzina's (2016) study examined students' learning outcomes through teachers' understanding and adequate usage of formative assessment. She concluded the importance of understanding formative assessment to improve students' achievement (Alzina, 2016).

Gustafson (2018) explained that formative assessment is successful only when the teacher and the students collaborate together. It is not only transferring knowledge from teacher to students, but seeing students' existing abilities, showing them their potentials and providing guidance and support through clear feedback that helps them become aware of their learning (Gustafson, 2018).

Teachers and students will cooperate to create a better learning experience. They will set achievable learning targets and elicit clear success criteria, collect information and use practices to see what works and what does not work. Teachers will grow professionally and become knowledge seekers who focus on change and improvement to raise their students' performance as well as theirs. Formative assessment creates a partnership between teachers and their students.

2.4 What is the leaders' role in helping teachers use formative assessment?

School principals are always concerned about developing teachers professionally, so they bombard them with workshops; while research has proven that leaders, who engage in one-on-one focused conversation with teachers, will change teachers' performance positively even greater than change produced by workshops (Hall & Hord, 2000). Formative assessment supplies principals with evidences about what is happening in the classroom. Armed with those evidences, principals can identify teachers' needs and have deeper, focused individual conversations with them. Principals need to provide teachers with the knowledge, skills and strategies that will help them implement formative assessment.

Brookhart and Moss (2013) elaborated on a project done in a rural area in western Pennsylvania over a period of 3 years from 2009 till 2012. The project focused on empowering principals with the strategies needed to apply two elements of the formative assessment, shared learning targets and effective feedback. Principals then supported teachers in applying them. Findings were quite surprising as Brookhart and Moss (2013, p.17) declared, "Watching this happen right before our eyes was a great privilege. While our project centered on formative assessment, we realized that we were also watching the future unfold — a future in which principals' main responsibility has to do with learning. When principals lead learning in their buildings, the school culture transforms. Schools move from having an evaluative culture to having a learning culture".

Formative walk-through is a strategy that principals use to build their understanding about the ways students learn. Principals are doing formative walk-throughs to see learning from students' perspectives, try to bring clarity to themselves and to teachers in seeing what works best with students and how they can plan for it. Principals will focus on students' understanding of the lesson target and their capability of explaining what they are supposed to learn, how they are supposed to learn it, how they can tell that they have learned it and what evidence they can provide of their learning (self-assessment).

Formative walk-throughs are totally different from traditional walk-throughs. In Traditional walk-throughs observer focuses on the instructional and teaching strategies and on best practices, thinking that effective teaching lays in the appropriate delivery of the material which is one side of the learning process. Teachers are the main focus; looking at what they are doing and saying how their performance contributes to students' learning. Formative walk-through is a whole school development process, where principals as well as teachers and students are learning. "Principals use formative walk-throughs to assess and strengthen their own knowledge and skill, reveal and challenge their assumptions about student learning" (Moss & Brookhart, 2013, p.44)

In formative walk-throughs, principals communicate with students and try to get answers for 4 particular questions:

- What should I do in this lesson? (learning target or objective)
- What knowledge and skills should I acquire to do it?

- How will I show my understanding?
- What proves that I have done it well? (Success criteria)

(Moss & Brookhart, 2012)

Formative walk-throughs provide principals with the evidence they need to support teachers in using the six elements of formative assessment that will be discussed below to better student achievement.

Learning targets and success criteria: “Flying blind” a phrase used by Moss, Brookhart & Long (2011) to describe students who do not know where they are heading or what their target is. They have even gone into comparing sharing learning target to a global positioning system (GPS) which leads you to your destination when you give it a specific description of where you want to go. It updates you every minute about your position and the time needed to reach your destination, same as shared learning targets do. Some teachers think that by writing the objectives on the board or explaining them in a simple sentence, they have shared the learning target, which is not true.

Learning targets explain in student language the goal that students should reach by the end of the lesson from the students’ view point and should clarify the success criteria which support students in self-assessing their mastery of the target. By understanding what they should learn, and the criteria for success, students will perform better, they will be able to modify their learning and select strategies that will help them attain their target (Brookhart

& Moss, 2014). A learning target is a “lesson-sized” piece of learning; it is a portion of the content students have to master in one lesson (Leahy, Lyon, Thompson & William, 2005). There are different ways teachers can use to communicate the learning targets to students. The first thing is to put themselves in the students’ shoes and try to answer three questions about what the students will be capable of doing by the end of the lesson, what subjects or ideas are necessary to support their learning and understanding, and how they will prove their acquisition of the content and skill (Moss, Brookhart & Long, 2011). Those are almost the same questions that the principals look for answers for in their formative walk-throughs and they were mentioned previously. Principals also learn, in their formative walk-throughs, how teachers are communicating the learning targets to students; and they play a role in supporting teachers by leading directed conversation to come up with strategies to better communicate the learning targets. Some of those strategies like questioning, planning and envisioning, using example and using rubrics were explained in details by Moss and Brookhart (2009). Principals also help teachers set their professional learning goal that might have more than one learning target based on the feedback discussion from the learning experience they have gone through with their principals.

Feedback: As teachers expect to receive feedback that feeds their learning forward, guide them in setting their learning goal in their learning journey and encourage them to reach their goals so do their students. Studies showed that feedback enhances self-regulation when students understand their learning target and what to do to reach it (Butler & Winne,

1995; Hattie & Timperley, 2007). It is considered vital to learning (Kulasegaram & Rangachari, 2018). Psychological theories of learning, constructivist and sociocultural theories stress on the importance of feedback content and method of delivery in causing change in students' learning (Kulasegaram & Rangachari, 2018). Teachers need to feed to students constructive comments about their work. In this way, teachers give them insight about their work based on the success criteria discussed for the learning target, so students know where they stand. They self-assess their performance and set strategies for improvement. Moss and Brookhart (2009) claim that "Effective feedback affects student learning in two ways. First information from clear, descriptive feedback supports achievement..... Second, information from clear, descriptive feedback supports motivation". In other words, feedback helps students tell which knowledge and skills are good and which ones should be improved. It guides them to self-reflect and self-assess. When they feel that they can control their learning, they will be more motivated and engaged. Principals can share many strategies with teachers on how to deliver oral or written feedback to students based on clear principles and the best way to do that is to model it as often as possible in their own feedback to teachers (Moss & Brookhart, 2009). During the feedback process (pre-observation, observation and post-observation discussion), principals can support teachers and in turn students by asking themselves what they have learned from the teacher and students work during observation, what they have learned from their discussion with teachers and what teachers have learned from the post-

observation discussion (Brookhart & Moss, 2015). Marzano (2012) also claims that formative feedback will help teachers develop as effective educators.

Goal Setting: When students become knowledgeable about the learning targets and have clear criteria to evaluate their steps towards reaching their targets, they will be able to set their own goals which will make them more engaged in their own learning. When setting their goals students become more focused on the learning target, more engaged and stimulated to learn and more willing to create strategies that advance their learning (Locke & Latham, 1990).

Self-assessment: Just as teacher's feedback compares students' work against success criteria that lead to achievement of learning target so does self-assessment. Teacher should provide students with the skills to become self-assessors. By self-assessing, students will be more aware of their strengths, weaknesses, areas for improvement and how much they have progressed towards achieving their goals (Moss & Brookhart, 2009). Of course, all of the formative assessment elements are guided by the teacher appropriate usage of questioning and strategies that help students own those elements to perform better.

To sum up, it was clearly seen through the different studies done that formative assessment when applied properly taking into consideration its elements, results on better students' achievement. Studies also claimed that teachers improve professionally when supported by their principals' formative walk-throughs that help them better apply formative assessment in their classes.

3. Methodology

Explanatory case study method was used to conduct the research mainly because the researcher was seeking to establish the causal relationship between formative walk-throughs and application of formative assessment which would in turn lead to better students' achievement. "Develop a 'how' or 'why' question that would be a rationale for a case study..." (Yin, 2009, p.10). Yin (2009) defined case study as "...an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context", which the researcher tried to do in this study. The researcher checked the different variables to work on like the formative walk-throughs, formative assessment and students' achievement and relied on multiple sources of evidence to create the connection and causal relationship between the three variables. The study used focus group discussion, formative walk-throughs using the observation form designed by Moss and Bookhart (2009, p. 37-39) over two phases, and the results of students' work in both observations was compared to analyze performance. Triangulation of data helped in reaching the final findings. The research was conducted with two grade seven English teachers in one private school in Dubai. The focus was on writing skill.

The researcher used the focus group discussion as an early stage to help select teachers who would participate in the formative walk-throughs. Focus group is "a group of people brought together to participate in the discussion of interest. The focus group

discussion aims to provide an environment in which all members of the group can discuss the area of investigation with each other. A successful focus group discussion has the group members involved as participants in discussing the area of interest” (Boddy, 2005, p.251). The researcher preferred using focus group and not interviews because “focus groups are useful when it comes to investigating *what* participants think, but they excel at uncovering *why* participants think as they do” (Morgan, 1988, p.25 cited in Oates, 2000, p.187). A focus group of ten English teachers were brought together to participate in an in depth discussion to collect information about their understanding of formative assessment and how it is applied in class. Their discussion was based on specific questions posed by the researcher:

- Based on your own experience, how would you define formative assessment?
- When do you use it?
- Why do you use it?
- What strategies do you use in applying it?
- What is the role of the students in formative assessment?
- How does your principal or head of department help you apply formative assessment?

The questions are related to the six elements of formative assessment. Feedback collected from participants’ answers and their discussion and interaction with each other showed a shallow understanding and application of formative assessment except for two female and

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two male teachers who had a more advanced understanding than others. Most of them defined formative assessment as any type of task, activity, quiz or test that students perform to check attainment of objective set for the lesson. They said that they do it at the end of the lesson and use the results as feedback to guide them to reteach the lesson using different strategies or elaborate more on the concept taught. No clear role of the students was described in their words. One of them said, “students perform the task and the results prove if they have understood or not”. The female teacher who participated later in the walk-throughs said, “No, students should not only perform. They need to know what they are doing and why they are doing it”. She explained that, in her class, she communicates the objectives to students so they know what to do which they all agree on, but no one of them mentioned anything about sharing the success criteria for any learning target except the same female teacher who claimed that she sometimes gives students a rubric to help students do self-assessment or peer-assessment and showed some samples to her colleagues.

After looking at the script drawn from the focus group interaction, the head of English department, who conducted the formative walk-throughs later, advised to select 1 male and 1 female teachers of grade seven for walk-throughs and that was because of the time limit and other classes were preparing for end of term exams. The study was done over a period of one month. The formative walk-throughs were done over two phases using Moss and Bookhart (2009, p. 37-39) forms. The teachers were asked to deliver a writing lesson, based on the content of the curriculum they were covering at that stage, following

their own strategies and understanding in applying formative assessment. The female teacher started her lesson by communicating the objective to students, “By the end of this lesson you should be able to write a narrative writing”. She used examples of good and bad narrative writing and questioning to help students deduce the elements of good narrative. She used two strategies of sharing learning targets but she was not focused on clarifying the success criteria in a rubric to guide students and did not ask them to plan their work based on clear steps. Students received oral and written feedback on their first draft before editing it and writing the second draft. The head of department selected nine students randomly and asked them about what they are learning and how they know that they are doing well. Students were able to tell that they are writing a narrative story, as one of them quoted “I am writing a story about an accident that happened to me”. Students couldn’t give clear evidence or state success criteria of their well-performance. The male teacher in his first walk-through used also two strategies which were, giving one good example and a plan for narrative writing. He used the example to explain the component of narrative writing and guide students to use the plan. Guidance and feedback were not well structured, so not all selected students were able to tell what they are doing and no one was able to explain how he knows that he is doing well.

Findings from the first phase of walk-throughs were discussed with the teachers and the head of department supported them over three sessions to understand the elements of formative assessment and in particular how to share learning targets and success criteria

and modeled feedback giving to help them better apply it with their students. The head of department based his feedback and guidance on what he has learned about students' learning and teacher strategies to facilitate self-regulated learning.

A second phase of formative walk-throughs was conducted and both teachers applied the strategies of sharing learning targets. Teachers gave constructive oral and written feedback that fed students learning forward. After the second phase students' writing from first and second phase was compared based on a set rubric of narrative writing.

4. Findings:

Data analysis proved the positive impact that the study was seeking to prove about the relationship between formative walk-throughs and better application of formative assessment to improve student performance. The findings were as follow:

1. A clear improvement was seen in student performance between first and second walk-through (table 1), which resonates with Kulasegaram & Rangachari's

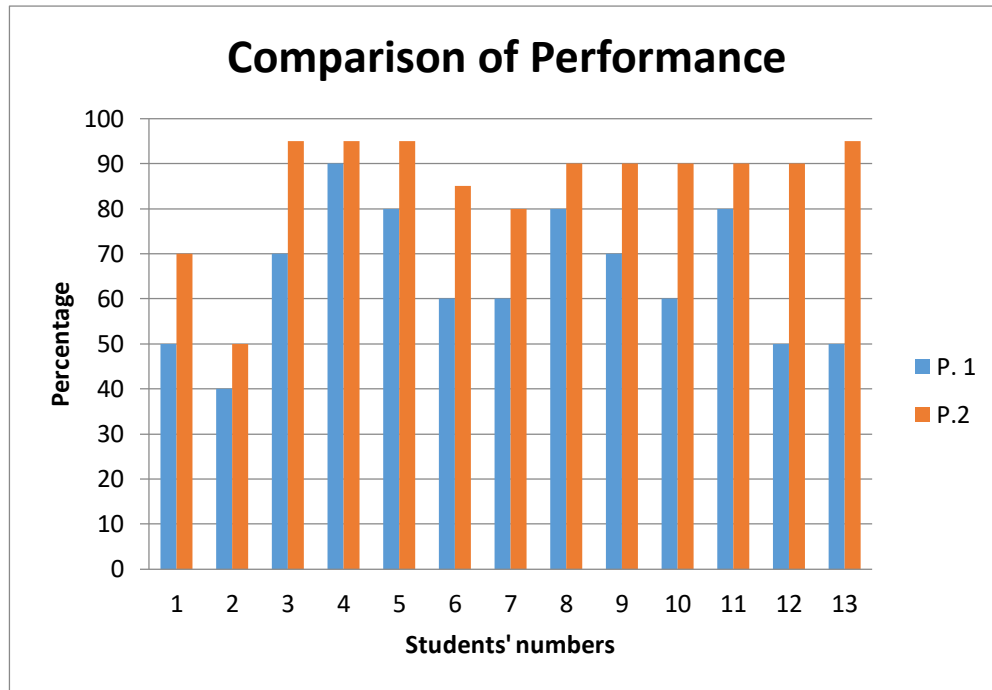


Table 1: comparing student performance in first and last walk-through

(2018) results and the research result of Vogelzang and Admiraal (2017) which emphasizes the significant positive effect that formative assessment has on students' achievement.

2. Low achievers have improved more than others. Students 1, 2, 12 and 13 in table 1 above are an example. This finding agrees with Black and William's (1998) result which indicated that formative assessment improves students' performance and in particular low achievers who gain a better understanding of their own learning.

3. It was also noticed that female students have shown a better improvement of 22% compared to the male students' improvement of 15%.
4. Teachers were positive and stated that they felt they benefited more from formative walk-throughs and discussion with their heads than formal workshops. This echoes Alzina's (2016) study which insisted on the role of teachers and their understanding to improve students' performance.

The findings matched the studies discussed earlier in the literature review and answered the questions posed earlier by the researcher but caution should be considered in generalizing these findings because the sample used was limited and the time was too short to try to elaborate more and do more practices to confirm students and teachers' improved performance over a period of time.

5. Conclusion

Changing school culture from one that worries about evaluation to one that is learning directed is a goal that modern education is seeking and all school leaders have to adopt. Formative walk-through is a strategy in which principals or heads of departments build their own understanding of student learning and help teachers see it through students' eyes. They build student self-regulated learning by applying the elements of formative assessment which leads to better performance. The research tried to show the relationship

between applying formative walk-through to better conduct formative assessment and improve students' performance. The study done in one private school in Dubai in two grade seven English writing classes with two teachers provided a conclusion which is consistent with earlier researches regarding the impact of formative walk-throughs on better application of formative assessment and the role of formative assessment in improving student performance and creating motivated self-regulated learners. The limitations of samples chosen and time could be a motive to conduct a similar study to elaborate more on the findings to be more reliable. Further studies can be done in more than one school of similar curriculum in Dubai and with a larger number of teachers, heads and students. Schools also need to look at the appropriate professional development that support teachers on the proper implementation of formative assessment and the proper and constructive feedback.

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