

Assessment for Learning: Conceptualisation and Implementation among High School Teachers in Saudi Arabia

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Abstract The use of assessment for learning as a philosophical framework for assessment reforms in many educational institutions gained significant prominence in the last two decades due to its strong theoretical and empirical support. However, reports showed it has not gained significant traction in terms of influencing and changing teachers' practices due to many factors. This paper intends to explore the issues associated with its implementation in Saudi context. A survey was implemented with 30 high school teachers and a follow up interview of three teachers was conducted. Results showed that teachers have high understanding of AfL concepts but their assessment knowledge is not translated to their actual assessment practices. Their practices remain to be summative in nature due to some factors that prevent them from applying effective AfL strategies. These results have significant implications for developing professional development programs that will support teachers to operationalise their assessment knowledge into actual practice and for articulating policies that will provide enabling mechanisms for teachers to implement AfL strategies.

Keywords: formative assessment, teacher feedback, self-assessment, peer assessment

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1. Introduction, Aims and Rationale

The use of assessment for learning as a philosophical framework for assessment reforms in many educational institutions gained significant prominence in the last two decades due to its strong theoretical and empirical support. The works of Black and Wiliam in 1998, "*inside the black box: Raising standards Through Classroom Assessment*" and "*Assessment and Classroom Learning*" provided the impetus for such reforms. Their works have highlighted the formative assessment and its important role in raising the standards of achievement. In addition, in 2004, Broadfoot and Black highlighted the importance of assessment practices and outcomes due to the fact that the process touches the lives of everyone involved in the educational process and because the results can determine the future of the student.

Due to a large number of theoretical and empirical evidence on the impact of assessment to student learning, in recent decades greater attention has been paid to student assessment practices at the national and international levels and their impact on improving education service delivery in general [1]. Moreover, one of the reasons for the increased attention in, and the number of, assessments

worldwide is that the assessment procedures applied in an educational system provide an indication of how the education system works. This is because the assessment procedures and outcomes reveal the truth about what is occurring in reality [2].

But what really is an effective assessment in the classroom? According to Rowntree [2], assessment is defined as the process to pass judgement on, or to assign a value to, something else. Furthermore, the assessment reform group [3] has presented a thorough definition of the assessment for learning. The ARG defined AfL as "the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there" (p. 2). Thus, gathering information via an assessment can be accomplished through direct or indirect interactions between the assessor and learner. Moreover, the learner may engage in self-assessment of his/her work (i.e., ability and knowledge). As such, Crooks [4] has defined assessment as "any process that provides information about the thinking, achievement or progress of the student" (p. 2).

However, two terms used widely in education settings in relation to student assessments are the formative assessment (FA) and summative assessment (SA). FA refers to any assessment that aims to diagnose the

student's learning needs in order to improve the student learning outcomes; whereas, SA refers to an assessment undertaken to formulate a judgment of the overall learning by the student and whether or not she/he has acquired the expected knowledge and/or skills by the end of the semester or the year [2]. In this regard, a SA reflects the characteristics of assessment of learning; whereas, a FA reflects the characteristics of AfL. The latter concepts are used interchangeably in various articles and research papers [4,5,6].

However, in the context of Saudi Arabia, the assessment reform has been implemented since 1998 in the form of continuous assessment (CA) which is a predominantly AfL paradigm. Nevertheless, despite the fact that the enormous effort and the amount of money spent in order to improve the assessment strategies in Saudi Arabia, most educators and policymakers agree that the outcomes did not match the expectation [7]. For instance, in 2003 the results of Saudi students participating in the International Mathematics Tests were disappointing, as were the achievements of the Saudi students participating in the International Mathematics and Science Study (TIMSS). Moreover, in 2007, the results for Saudi students sitting the International Mathematics Tests showed that the students' performance had not improved. These results shocked educators and policymakers because the tests were undertaken after introducing a new assessment strategy, continuous assessment, in Saudi primary schools in 1998 [7]. Al Sadaawi claimed that one of the key challenges facing the Saudi education system is that the teachers and students continue to use traditional teaching and learning methods such as rote learning. This learning mode does not have a place in the new era of learning and can distort the learning process over the long term.

Therefore, the aim of this paper is to explore the extent to which high school teachers in Saudi Arabia comprehend the concept of AfL and whether they are literate in applying AfL strategies in their classrooms. Moreover, the paper investigates the dominant assessment strategies the Saudi teachers apply and its effectiveness. Therefore, the following section will present the research questions followed by the literature review. Understanding the context of the study is crucial; thus, the background of the Saudi Educational system and the assessment policies will be discussed followed by the research methodology. The results will be presented and discussed in the following section. Finally, the conclusion of the study will be presented in the last section.

2. Research Questions

The study aims to investigate how Saudi teachers perceive the AfL concept and to identify their assessment literacy and the common assessment applications they use. To achieve these aims, three research questions (RQ) are to be answered:

RQ 1: Do high school teachers distinguish between the concepts of the formative assessment and summative assessment?

RQ 2: What is the level of the implementation of Assessment for Learning?

RQ 3: What activities/strategies do teachers apply to conduct an assessment?

3. Literature Review

Most of the literature on assessment strategies in the field of education focuses on the ways to implement assessment procedures for marking and grading purposes. As such, there has been little attention paid in the literature to how assessments' strategies can improve student learning and achievement [2]. The importance of assessment strategies emerges from a common belief that the student will adopt either a surface or a deep learning approach based on the assessment practices applied by the teacher. Gibbs [8] defined the surface approach as the process by which "the student reduces what is to be learnt to the status of unconnected facts to be memorized [meaning that] the learning task [becomes] to reproduce the subject matter at a later date" (p. 4). Conversely, the author defines the deep approach as the process by which "the student attempts to make sense of what is to be learnt, which consists of ideas and concepts [and] involves [the student in] thinking, seeking integration between components and between tasks, and 'playing' with ideas" (p. 5). In this regard, Gibbs [8] attributed the adoption of the surface learning approach by the students to their fears about the assessment methods. However, the student would benefit their learning most if he/she adopted a deep learning approach. This can be achieved by motivating the student, getting the student to interact with peers, and by undertaking learning and assessment activities inside the classroom.

Despite the fact that many researchers and scholars have studied the AfL and its positive impact on raising learning standards [9,10], most assessment strategies implemented in schools in Saudi Arabia are considered summative in nature [11]. There are several reasons for adopting SA methods rather than FA methods. One reason is that the students tend to memorise the contents of the textbooks as a way to achieve high marks in the final examination. In turn, the teachers unintentionally encourage the students to memorise the textbook content by designing tests that favour students who use rote memorisation as their learning strategy [12]. In this regard, Darandari and Murphy [13] have stated that the assessment methods used by teachers in Saudi Arabia ignore the evidence showing FA activities can enhance the cognitive, behavioural and communication skills of students. Nevertheless, Alaudan [11] has also stated that "it is unrealistic to assume that what has worked in other countries, such as the UK, will work in the Saudi context" (p. 21). She argued that the concept of FA and its strategies might not be fully understood by most teachers in Saudi Arabia. Therefore, reviewing what has been said in the literature regarding the teachers' conceptualization of assessment procedures in general and AfL in specific is essential. Then, the current level of teachers' assessment practices will be reviewed followed by the effective teachers' assessment practices such as teacher feedback, self-assessment and peer assessment.

3.1. Teachers' Conceptualisation of AfL

Exploring the literature on teachers' understandings of assessment practices is essential because it sheds the light on the gaps in their understanding and their reasons for adopting the practices they do. Many scholars have argued that teachers' understandings of assessment for learning (AfL) and its strategies reflect the effectiveness of their implementation. The Assessment Reform Group [3] has defined AfL as "the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there" (p. 2). Based on this definition, it is evident that the outcomes of the assessments can be used to determine the learning level, learning goals and the strategies used to achieve the goals.

Teachers can adjust their teaching strategies after each assessment to help the students to achieve their potential. However, to change the teaching methods in a way that benefits student learning, teacher must be professional and skilled in adopting new teaching strategies. Thus, scholars interested in teaching and assessment strategies have discussed the importance of viewing each teaching context and its features as unique, despite the successful outcomes achieved in other teaching contexts such as in developed countries. In this regard, Akyeampong, Pryor and Ampiah [14] have argued that teaching cultures vary from one context to the next and it is thus important to explore deeply the reasons for adopting teaching and assessment practices in each context. In other words, what has been done in one context does not imply that it is going to be successful in another context due to variations in terms of school infrastructure, teacher understanding, student attitudes and the requirements of the subject area [15].

Analysis of the practices of African teachers shows that they adopt a lecture-style format in the classroom leading the students to adopt rote learning strategies to memorise the answers for assessment purposes [14,16]. Similarly, teachers in Sierra Leone read factual information directly from books and require the students to recall the information provided during the examination period [17]. However, Akyeampong et al. [14] discussed the importance of CA in helping teachers to focus on the student learning. The authors also claimed that Ghanaian teachers were not implementing CA methods effectively. They added that since the introduction of CA in Ghana, teachers have remained confused about its concepts which impacts negatively on their practices. Furthermore, Pryor and Lubisi [18] have stated that education experts have been promoting CA because of its effectiveness in engaging the students in the learning process. However, although some teachers comprehend the meaning and purposes of AfL, their practices are not aligned with what they understand, or they are confused of how to transfer the knowledge they have into effective practices. Therefore, the following section explores what the scholars have found regarding teachers' assessment practices.

3.2. Current Level of Teachers' Assessment Practices

Even though the "range of assessment practices in schools today spans from traditional test-based behaviouristic

approaches to contemporary socio-constructivist assessment practices" ([19], p. 4), teachers' assessment practices remain relatively limited. For instance, Cheah [20] studied Malaysian teachers' assessment practices and concluded that their skills and knowledge were relatively poor. This could be due to various internal or external factors. First, the lack of effective assessment strategies embedded into the lesson plan. In this regard, the ARG [3] have insisted on the importance of having assessment methods included in the lesson plan because it provides the teacher and the students with the opportunity to participate effectively in the learning. Therefore, preparing effective assessment strategies in the lesson plan increases the teacher's confidence to assess student learning. In turn, the students will be more interested and engaged in the learning process.

Second, in learning environments where students rely on memorising the key concepts and main ideas, implementing AfL becomes difficult, and sometimes unacceptable to, the teachers and/or the students. In term of the teachers, they are used to implementing assessment strategies that focus on preparing the students for the examinations. In other words, they already know what they are going to assess, thus, they tell the students what is important and what is not. Moreover, the students have been relying on rote learning methods and find them useful for passing the test with less effort. Van Zee, Iwasyk, Kurose, Simpson and Wild [21] have pointed to the way that teachers who use traditional teaching strategies tend to discuss the main ideas of the topic with the students and then ask them to memorise the main ideas presented.

Third, overcrowded classrooms and the workload of some subjects have contributed significantly to the lack of AfL implementation. As discussed by Davison [22], even though experts in Hong Kong have been promoting the positive impact of AfL strategies on student learning, the English teachers there have failed to adopt formative assessment (FA) practices because of high number of students in the classes, the subjects to be taught, and the students' preferences for marks and grades.

One factor that may contribute to poor assessment practices by the teachers is their experiences of assessment when they were students or at the beginning of their teaching career [19]. That is, some teachers may value and implement out dated assessment approaches because they believe that it gives them valid results and can provide a strong evidence of the extent of student learning [23,24]. In this regard, Cowan [25] asserted that student teachers enter the teaching field with a view of assessment practices that is summative in nature as a result of copying the practices they experienced while studying. Therefore, the scholars have long argued that policymakers should enhance and improve teacher assessment literacy because poor assessment practices may prevent the students from improving [24,26].

3.3. Effective Teachers Assessment Practices

3.3.1. Teacher Feedback

Teacher feedback is one of the most common strategies used by teachers in applying the principles of AfL. Jones

[27] defined teacher feedback as “providing information to an individual which focuses on their performance or behavior” (p. 19). Thus, scholars and researchers have deeply examined the effects of teacher feedback in the education context. A seminal study of the impact of teacher feedback was conducted by Page. Page [28] studied the difference between grading the student task solely and grading the student task along with the provision of encouraging feedback. The author discovered that when the teacher allocated time to write encouraging comments on the student’s paper, the comments would have a powerful effect on the student’s effort. As a result, the student would increase his/her effort to study and the learning would improve [28]. However, Stewart and White [29] argued against Page’s conclusion claiming that the promising results from Page’s study depends on the learning context and the nature of the comments written by the teacher. Jones [27] agreed with Stewart and White, arguing that although teacher feedback is considered one of the most important features of AfL, its effectiveness as a strategy is contingent on two factors; “the quality of feedback and how learners receive and ultimately use it” (p. 6). However, the skills to provide quality and effective feedback can take a long time to master by teachers [30]. Therefore, Jones [27] suggested that teachers need to be trained in how to provide effective feedback to students in addition to having adequate support from other stakeholders.

Furthermore, sharing the learning goals at the start of the lesson is important to give the students an idea of the criteria they are expected to perform [31]. According to Crooks [31] establishing an academic dialogue in the classroom regarding the learning goal will reflect positively on the students’ performance in the formative assessment. Moreover, the scholars have argued whether giving feedback to the students without attaching marks will lead the students to maximize his/her effort in learning. In this regard, Rust [32] asserted that providing feedback with marks attached every time is not helpful because the students will look at the accumulated marks rather than what they have learnt and what they have to do to improve their performance. In contrast, Smith and Gorard [33] conducted a study and they found that the students are eager to see the marks more than listening to the comments. Nevertheless, the teacher’s comments on the student work must be clear and pinpoint on the weak and strong areas. Therefore, the teacher must vary while providing effective feedback and choose either oral or written feedback in the classroom to help the students fill the gaps and improve their works [27]. Also, the teacher should provide some tips on how the student can improve his/her performance to maintain the student’s motivation [27].

Feedback is considered as scaffolding to support the student to acquire and master the skills needed to fulfil the course requirements [27]. The Quality Assurance Agency (QAA) has stated that “Institutions should ensure that appropriate feedback is provided to students on assessed work in a way that promotes learning and facilitates improvement” (QAA, General Principle 12; cited in Rust, [32], p. 8). Therefore, the teacher should not attempt to provide the student with a solution to an issue, but rather should attempt to lead the student towards the correct

answer [27]. In this regard, Rust [32] pointed to the idea that the teacher should have the ability to turn all criticisms he/she has about the student’s work into positive suggestions. Moreover, the teacher should use informal language while providing feedback and be prepared to further explain the feedback comments. Furthermore, an important aspect of teacher feedback follow-up to check whether or not the student has benefited from the comments and the work has improved.

Most educators hold the view that providing effective feedback to a student will help to improve his/her learning outcomes by self-correcting their mistakes. In this regard, Lepper, Drake and O’Donnell-Johnson [34] argued that effective feedback may be characterised by ignoring the mistakes that do not link directly a solution, predicting the mistakes the student may make, and providing hints and leading questions to guide the student towards the correct answer. They added that if the student then fails to engage in effective self-correction, the teacher can intervene and ask direct question related to the solution process. The reason for providing indirect feedback to the student rather than direct feedback is, as stated by Lepper et al. [34], to keep the student motivated and confident in his/her learning. However, Shepard [35] believed that this can be difficult for new teachers who must learn how to find the right balance between providing constructive feedback and maintaining the student learning motivation and confidence. To maintain student motivation and confidence, Ames [36] argued that privacy must be maintained when providing feedback and that the teacher should convey the notion to the students that errors and misunderstanding are a part of the learning process.

3.3.2. Self-Assessment

Most teachers report that they often do not have sufficient time to assess all students in the class. As such, they appear to forget to use a powerful assessment strategy; namely, student self-assessment. Student self-assessment is an important strategy in AfL process. Numerous studies have discussed the importance of this assessment strategy for improving and enhancing student learning [4,37]. However, defining self-assessment correctly is crucial to understanding its benefits and features. In this regard, Boud [38] defines self-assessment as “the involvement of students in identifying standards and/or criteria to apply to their work and making judgements about the extent to which they have met these criteria and standards” (p. 1). From the definition provided, by engaging the student in the assessment process, the student will take into consideration the teacher’s expectations.

The benefits of applying the self-assessment strategy is supported by research evidence. One such benefit reported by Crooks [4] is that it helps to create autonomous learners where self-monitoring is considered a crucial aspect in the learning process. Similarly, Boud [39] and Jones [27] have also asserted that developing the self-assessment skills in students will help them to become effective lifelong learners. Furthermore, allowing students to self-assess their work provides them with a sense of ownership over their work product and be more accountable for their work. However, that does not mean that the teacher is not responsible for assessing student

performance. Rather, it means that both the teacher and the student are responsible for the learning process and its outcomes and thus implies that collaboration is the key to success [40]. Moreover, Klenowski [41] studied self-assessment practices in Australia and England. The researcher reported that students who are afforded self-assessment opportunities are more generally interested in the feedback they receive and the criteria they want to meet than in the mark itself. Klenowski added that the students who participated in self-assessment were able to defend their positions and opinions clearly.

Klenowski [41] also emphasised the importance of the teacher implementing the following steps to ensure that he/she is applying the self-assessment strategy effectively. First, the teacher should provide the students with opportunities to pause their learning in order to reflect on what they have accomplished to that point. Second, the teacher should provide the students with support and guidance throughout the process because self-assessment practices are not easy for some students. Third, the teacher should scaffold the process and provide exemplars to the students to help them to know how to conduct a self-assessment appropriately [27]. As Spiller [42] suggests, prior to implementing the self-assessment strategy the teacher should engage in an intensive discussion with the students regarding the strategy to clarify any misunderstanding regarding its purpose and impacts. Moreover, the students should have the opportunity to be involved in establishing the criteria that they will be assessed against [39]. Boud emphasised the importance of informing the students of the explicit procedures of self-assessment and assuring them that the 'feedback' they acquire on their performance will benefit the learning process. Lastly, Boud [39] insisted that confidentiality is a crucial aspect in the self-assessment process because when the students feel safe and confident, they will be more likely to critique their performance for the sake of learning improvement. Nevertheless, self and peer assessment activities must be managed by the teacher carefully; otherwise, the students will not extract the benefits of using these assessments' strategies [27].

3.3.3. Peer Assessment

Another useful assessment strategy to employ with students in the classroom is peer assessment or peer feedback. There are many definitions of peer assessment, one of which by Spiller [42] is that peer assessment "involves students providing feedback to other students on the quality of their work" (p. 10). Scholars have studied the validity and the importance of peer assessment in the classroom and its benefits to student learning across a range of education levels. For instance, at the primary level, Brakel [43] reported that peer assessment helped to improve the writing skills of year six students. Furthermore, Tseng and Tsai [44] conducted a study of the validity of peer assessment marking among high school students in Taiwan. At the tertiary Topping [45] and Mowl and Pain [46] had studied the validity and reliability of peer assessment among the college and university students. In addition, the peer assessment strategy has been employed at the University of Glasgow by Professor George Jardine who encouraged his students to assess each other in his lectures between 1774 and 1826 [47].

Similarly, Scruggs and Mastropieri [48] argued that peer assessment is broadly used by students across all learning levels with success as evidenced in improved learning outcomes. Topping [49] has also stated that both the assessor student and the assessed can benefit simultaneously from the peer assessment process. The author added that one of the features of peer assessment is that the students in the classroom can potentially receive richer, more detailed and more instant feedback from their peers than they could hope to receive from the teacher. Moreover, peer feedback activities can provide an opportunity for the students to open an academic discussion about their work product and thus potentially contribute to their learning [50]. Furthermore, one of the benefits of peer feedback is that it gets the student accustomed to providing feedback and accepting peers' comments and feedback, which is considered an important skill for students in the long term [42]. Lastly, implementing a peer assessment strategy in the classroom sends a signal to the students that they share the power and the responsibility in the learning process with their teachers which will reflect on their commitment to enhance their learning [42]. However, peer assessment activities must be based on explicit criteria to help the students to assess their peers fairly.

4. Context of the Study

4.1. Background of the Saudi Education System

King Abdul-Aziz, the founder of the third Saudi Kingdom, considered the education of his people to be a priority after he established the Kingdom of Saudi Arabia. In 1923, there was no formal schooling in the regions under his authority, so he set about educating the coming generations and providing them with the skills they needed to improve life in Saudi Arabia. At first, the late King met with clerics and encouraged them to spread the knowledge they have in religion and Arabic principles [51]. In 1924, a few primary schools were established within the new Saudi educational system for male students; whereas, female students were able to attend formal schools in 1960 [7,52]. The authors added that one year after the establishment of the boys' primary schools, King Abdul-Aziz issued a decree to establish the Directorate of Education. Its aims were to administer, organise and improve the education process. However, during that period, the resources were limited and there was no professional curriculum to be taught in schools. As a result, policymakers adopted the curricula from neighbouring Arab countries to implement in Saudi schools [53].

The increased demand for oil after World War Two increased the revenue going into the Saudi national budget and King Abdul-Aziz initiated a framework for a national educational system in Saudi Arabia. It consisted of six years of primary school followed by six years of intermediate and secondary school; three years for each level [7]. By 1951, there were more than 30,000 students attending around 226 schools. This prompted policymakers to replace the Directorate of Education with

the Ministry of Education in 1953. Seven years later, policymakers established the General Presidency for Girls which was in charge of designing and implementing suitable curricula for the education of girls [54]. In 2003, the General Presidency for Girls was integrated into the Ministry of Education. The education sector in the Kingdom has expanded dramatically from 30,000 students and 226 schools in 1951 to more than five million students and 30,000 schools in 2006 [7]. However, the Ministry of Education is using private residencies as schools to fulfil the increasing demand for education.

4.2. Assessment Policies in Schools in Saudi Arabia

As mentioned before, the Ministry of Education has implemented CA in the sake of improving the educational standards in the Saudi primary schools. However, the CA strategies were viewed by most of the Saudi educators as flexible and with liberal rules in terms of the pass requirements [11]. The Ministry of Education sought to achieve several goals by implementing CA in Saudi primary schools including to engage the students and their parents in the assessment process and to better align assessment methods to teaching practices [55]. Alaudan [11] claimed that applying CA was an attempt to apply FA methods, but the lack of teacher training on how to implement the FA system may have prevented the Ministry from going forward with its plan. Another obstacle to the implementation of the CA strategies were that the teacher dealt with the approach in a summative way [11]. Unsurprisingly, this is a general practice among teachers from year 1 to year 12 as they continue to focus on assigning grades to the students rather than improving individual learning. The issue here is that the students tend to memorise the information because it guarantees them a pass mark on the test, sometimes with high scores, without any improvement in their cognitive skills [13,56].

However, to clarify the assessment procedures in secondary schools in Saudi Arabia, it is important to understand the secondary school system because it is slightly different to the primary school level. First, the academic year consists of two terms, each 18 weeks duration; 16 weeks for learning and two weeks designated

for examinations. The students have to attend seven classes a day in subjects such as Quranic and Islamic studies, Arabic, Science and Computer Science, etc. In secondary schools in Saudi Arabia, after passing the examination in year 10, the students have to decide between two paths, Science or Literature [57]. Each path has its relevant subjects and determines what the student can study if he/she wants to complete undergraduate studies. For instance, students choosing the Science pathway study Chemistry, Physics, Mathematics and Computer Science in detail; whereas, students choosing the Literature pathway study Poetry, Linguistic and Management Studies. Irrespective of which pathway is chosen, students are required to attend Religion subjects. Secondary school students are required to participate in two types of assessments to pass the following year. The first assessment takes place during the term and accounts for 50% of the final mark. The student is assessed on his/her attendance, homework, mid-term exam, class participation and small projects. The second assessment is the final test prepared by the teachers, which is also worth 50% of the final mark. Each student must achieve at least 50% in total to pass the subject or redo the test during the summer vacation as a second chance [57,58].

5. Research Methodology

5.1. Research Design

The research design assists the researcher to establish suitable methods for collecting and analysing data [59]. This study applies a mixed method design to explore and answer the research questions. Bryman [59] has defined the mixed methods approach as “a simple shorthand to stand for research that integrates quantitative and qualitative research within a single project” (p. 628). Thus, the mixed methods approach assists the researcher to understand the topic deeply and to explore the issue from different perspectives, both objectively and subjectively [60]. Furthermore, the researcher collects rich and reliable data about the topic being investigated via use of the mixed methods design [61]. Therefore, researchers in the field of education often apply this research design [62,63].

Table 1. Fields and years of teaching (N=30)

	1-5 years	6-10 years	11-15 years	+15 Years	Total	Percentage
Islamic & Quranic Studies	0	0	0	2	2	7%
Arabic Language	1	2	0	1	4	13%
English Language	0	0	0	0	0	0%
Mathematics	0	4	0	4	8	27%
Science	0	2	0	0	2	7%
Social science	0	0	0	0	0	0%
computer science	3	5	5	0	13	43%
other subjects	1	0	0	0	1	3%
Total	5	13	5	7	30	100%
Percentage	17%	43%	17%	23%	100%	

5.2. Study Sample

The study sample comprises 30 male high school teachers working in different cities in Saudi Arabia. Three of them were interviewed. The rationale for choosing this sample is because they will provide rich and detailed data regarding their understanding of AfL and how it is practiced, which will be helpful in answering the research questions. Moreover, the 30 teachers are currently teaching in Saudi high schools, apart from one teacher who is studying a master's degree in Education. However, he was a practicing teacher eight months earlier. Two teachers also hold a master's degree and teach in a high school in Sydney. They are enrolled in a Saudi program called IFAD in Arabic. The main idea of the program is to send teachers to various countries to exchange and develop their teaching expertise and practices. Table 1 presented the fields and years of teaching for the teachers participated in the study sample.

5.3. Data Collection

Data were collected through online questionnaires and by conducting semi-structured interviews. The questionnaire included 30 items and it was divided into five sections; general information, the concepts of AfL, procedures of AfL, major challenges and two open-ended questions related to the most common assessment practices and its effectiveness. Furthermore, sections two and three of the survey consisted of 14 statements using a five-point Likert ranking scale. The teachers' responses were coded: Strongly agree=5, agree=4, neutral=3, disagree=2 and strongly disagree=1. However, in section four, the teachers' implementations were ranked based on their actual practices, and it was coded as: Always=4, frequently=3, rarely=2 and never=1. This means the higher value responses the more positive understanding and implementations of the statements related to AfL. The questionnaires were distributed to the 30 high school teachers recruited via social media such as WhatsApp.

The interviews were conducted in public libraries and in Arabic with three of the participants who agreed to participate after completing the questionnaire. The interviews consisted of 20 questions related to assessment literacy, assessment practices and the difficulties they face in the field in terms of implementing assessment strategies. The interviews were recorded using a Smartphone

recording app. The questionnaire is an instrument commonly used for collecting data in this research field because it is cost-effective and it supports access to valid and reliable information [64]. Furthermore, interviewing the targeted sample is crucial and considered a powerful tool to access the participants' deep thoughts about the topic being investigated [59,64].

5.4. Ethical Consideration

All necessary ethical considerations were accounted for while collecting data. The targeted teachers were informed of the aims and purpose of the research and agreed to voluntarily participate in the study. Moreover, the participants had the opportunity to ask any question regarding the nature of the research and the implications of their participation, and the researcher answered all their questions clearly. Furthermore, the participants had the right to withdraw from the study at any time.

5.5. Data Analysis

The participants' responses were entered into Excel to calculate the mean and standard deviation. The data were coded into numbers (e.g., Strongly Agree = 5, Agree = 4, etc.) and tables were created based on the findings. The interview data and field notes were transcribed and translated into English and then saved as a computer file for analysis. Each interview was then read more than once to extract key concepts and to identify links between the interviewees' responses and the relevant research questions. The names of interviewed teachers were concealed and replaced with codes (i.e. T1, T2). During the process of linking the key concepts to the research questions, the unwanted data were reduced.

6. Results

This section presents the results of the questionnaire regarding the teachers' understanding and their actual practices of AfL.

6.1. Teachers' Conceptualization of AfL

The level of teachers' understanding of the concepts of AfL is presented in Table 2.

Table 2. Teachers' understanding of Assessment for Learning's concepts (N=30)

The Statement	Mean	St. Deviation
One of the main aims of the assessment for learning is to determine the strongest and weakest areas of the student's learning and to use the assessment information in a way that contribute to the students' learning and modify the teaching methods.	4.47	0.82
The results of the assessment for learning might make the teacher to change the teaching methods.	4.37	0.67
The assessment activities must be embedded in the lesson plan.	4.07	1.23
The teacher must apply various methods and activities of assessment for learning.	4.33	0.66
The teacher will be able to measure the students' understanding of the previous lesson via asking discussion questions at the beginning of each lesson.	4.33	0.55
Applying assessment activities at a regular basis will increase the students' learning.	4.30	0.60
Applying assessment activities at a regular basis will impact negatively on the teaching time	3.20	1.21
Encouraging the student to self-assess his work after each lesson will help him to be more aware of the weak areas of his work.	4.40	0.62
Giving the student the chance to assess his peer will lead to increase the learning capacity of both students.	4.20	0.92
Sharing the lesson goals with the students will make them aware of the important points that they will be assessed in.	4.40	0.81
The teacher feedback will make the student more confident of his performance.	4.53	0.63
The teacher must move to the other lesson without discussing the mistakes that the students made in the previous assessment.	2.03	1.03

As shown in Table 2, the highest average score indicates the highest positive view towards the statement. Thus, the statement which said “*The teacher feedback will make the student more confident of his performance*” has the highest average score (M=4.53, SD=0.63). Then, the second highest score average (M=4.47, SD=0.82) is for the statement that “*One of the main aims of the assessment for learning is to determine the strongest and weakest areas of the student’s learning and to use the assessment information in a way that contribute to the students’ learning and modify the teaching methods*”. The third highest average score is for two statements “*Encouraging the student to self-assess his work after each lesson will help him to be more aware of the weak areas of his work*” (M=4.40, SD=0.62) and “*Sharing the lesson goals with the students will make them aware of the important points that they will be assessed in*” (M=4.40, SD= 0.81).

However, the least average score (M=2.03, SD=1.03) is for the statement “*The teacher must move to the other lesson without discussing the mistakes that the students made in the previous assessment*”. Then, the second least average score statement (M=3.20, SD=1.21) is “*Applying assessment activities at a regular basis will impact negatively on the teaching time*”. The statement with the third least average score is “*The assessment activities must be embedded in the lesson plan*” (M=4.07, SD=1.23). Overall, the average score indicates that the teachers have a positive understanding and attitudes towards the concepts of AfL.

6.2. Teachers’ Implementation of AfL

Teachers’ implementation of AfL strategies are presented in Table 3.

The teachers were asked based on expected assessment practices that align with the concepts of AfL. Thus, the highest average score (M=3.30, SD=0.88) is for the practice that said “I use discussion questions at the beginning of each lesson to measure the students’ understanding of the previous lesson” while the practice “I apply assessment activities at a regular basis inside the classroom” has the second highest score average (M=3.03, SD=0.76). The practice “I apply diverse assessment activities and methods inside the classroom” has the third highest practice (M=2.90, SD=0.71).

Nevertheless, the practice “I write the lesson goals and the desired performance by the students to pass the assessment and give it to them in a paper” has the least average score (M=1.77, SD=0.90) and the assessment practice which said “I write to the students my feedback and comments on a paper after the assessment activities without giving them marks” is the second least average score (M=1.97, SD=0.89). The practice “I embed assessment questions and strategies in the lesson plan” has the third least average score (M=2.37, SD=1.01). In general, the actual assessment practices among the teachers were modest.

Furthermore, the results of the major obstacles regarded by teachers as hurdles in applying effective AfL are presented in Table 4.

Table 3. The Actual practice of Assessment for Learning

The Practices	Mean	Std. Deviation
I embed assessment questions and strategies in the lesson plan.	2.37	1.01
I apply diverse assessment activities and methods inside the classroom.	2.90	0.71
I use discussion questions at the beginning of each lesson to measure the students’ understanding of the previous lesson.	3.30	0.88
I apply assessment activities at a regular basis inside the classroom.	3.03	0.76
I have the capacity to manage the class time to apply assessment strategies in a way that does not affect negatively the teaching time.	2.77	0.82
I give the students the chance to assess their performance and work by themselves.	2.53	0.86
I arrange the students in pairs to encourage them to assess each other.	2.87	0.86
I write the lesson goals and the desired performance by the students to pass the assessment and give it to them in a paper.	1.77	0.90
I write to the students my feedback and comments on a paper after the assessment activities without giving them marks.	1.97	0.89
I modify my teaching strategies based on the results of the students’ assessment.	2.63	0.85

Table 4. Hurdles in Applying AfL Strategies

The Challenge	Mean	ST. Deviation
Applying assessment activities at a regular basis is considered an additional burden on the teacher’s work.	3.17	1.34
The overcrowded classrooms are considered a hurdle in applying daily assessment activities.	4.60	0.97

Table 5. Assessment Strategies Implemented (N=30)

Assessment strategy	Frequency	Percentage
Discussion and observation	5	17%
Work sheets	5	17%
SA	7	23%
Games	7	23%
Quizzes and short tests	3	10%
Formative assessment	3	10%
Total	30	100%

The teachers regarded the students' number as a challenge in applying daily assessment activities ($M=4.60$, $SD=0.97$).

Moreover, in terms of the most dominant assessment strategies used by the teachers, 46% of the teachers are either using SA or games in assessing their students and 34% uses the direct discussion questions and observing the students' responses. Furthermore, the quizzes and short tests and various FA strategies such as peer assessment and self-assessment are used by 20% of the targeted teachers. Table 5 illustrates the results.

7. Discussion

7.1. Distinguishing between the Concepts of Formative and Summative Assessment

This paper aims to explore Saudi high school teachers understanding of various assessment concepts and whether their understanding reflects their level of assessment implementation. The results of the survey showed that variations exist between how teachers conceptualise assessment and their actual practices in the field. For instance, most teachers ($M=4.47$) accept that the main goal of AfL is to determine the nature of the students' learning progress and to use that information to benefit student learning and to adjust the teaching strategies (see Table 2). However, the results presented in Table 3 show that the extent to which teachers change their teaching methods based on the students' assessment results is moderate ($M=2.63$). These findings imply that teachers may not well comprehend the aim of AfL.

When asked during interviewee to express their understanding of AfL, T1 said that it is divided into three parts: pre-assessment, FA and summative assessment (SA). The teacher added that pre-assessment takes place before starting the lesson, FA takes place during the lesson, and SA takes place at the end of the lesson or unit to measure whether the students have met the learning goals. T2, on the other hand, considers any daily assessment to be a form of FA; whereas, T3 claimed that most of his colleagues conducted FA without knowing it. These answers led the researcher to ask the participants whether or not they had heard of the 10 principles of AfL. T1 acknowledged that he had not heard of the principles and T2 indicated that even though he had not heard about the principles, his assessment practices suggested that he had probably read about them. T3 reported that he had just recently learned about the 10 principles. Teacher confusion about assessment practices has been further discussed by Akyeampong et al. [14] who claim that Ghanaian teachers did not fully understand the meaning of CA and that this was reflected in their limited implementation.

7.2. Extent of Teachers' Assessment Practices

This section discusses the findings regarding the extent of the teachers' actual AfL practices. Sharing and discussing the lesson goals with the students is considered an important aspect of AfL because it directs the students towards the most important points in their learning. As

shown in Table 2, teachers have long understood the importance of the AfL strategy in the learning and assessment process ($M=4.40$). Nevertheless, the practice of communicating the learning goals and desired level of performance to the students does not align with the teachers' opinions regarding the importance of the success criteria ($M=1.77$), which means that the teachers rarely use this strategy (see Table 3).

During interview the teachers indicated that they write the learning goals on the board to assist the students to know what is expected from them. However, they all acknowledged that they have never written the learning objectives on paper and distributed it to the students. For instance, T2 commented, "I usually write the learning goals on the board and I found the students become more interested in the learning". T1 reported that when he was a student, his teacher would write down two to three goals for each lesson. In turn, T1 applied his teacher's methods and tried not to overwhelm the students with too many learning goals.

The teachers' interview responses also showed that they understand the significance of sharing the learning goals with the students. The teachers' understanding of the importance of this strategy is aligned with the views of Clarke [31] and Crooks [4] who assert that sharing the learning goals with students at the start of the lesson is important in order to give them an idea of the criteria they are expected to meet. However, the teachers' implementation of this strategy is weak and not consistent with their understanding of the strategy. For instance, T1 understands the significance of sharing the lesson goals with students but is implementing the same procedure as his own teacher did 20 years ago. These contradictions are explained by DeLuca et al. [19] mentioned that most assessment strategies used by teachers are based on their experience as students, and that this may help to explain the low level of practices.

Another important AfL strategy is teacher feedback. The surveyed teachers reported a high average score ($M=4.53$) stating that student confidence and performance will increase if the teacher provides them with effective feedback (see Table 2). The high average score indicates that teachers are aware of this strategy in the context of AfL. As shown in Table 3, however, they do not implement this strategy effectively in their actual practices. When the teachers were asked whether they provided feedback without attaching marks, there was a low average score ($M=1.97$).

In addition, all the interviewees claimed that they provided feedback after each assessment task. T1 indicated that he would sometimes not attach marks while T3 reported that he always provided the feedback with a mark because the students would not take the feedback seriously without it. T2's response was consistent with the response from T3 when he said, "I rarely provide feedback without attaching grades because the student needs to know his learning level and the only way that determines his learning level is via attaching grades". The differences between the teachers' opinions and their actual practices can be attributed to the long-standing debate among scholars in the field regarding this strategy. Scholars continue to debate the effectiveness of giving feedback without assigning grades or marks. For instance, Rust [32]

believed that attaching a mark to all feedback would encourage the students to think only of their marks and ignore the teacher's comments. Smith and Gorard [33] also reported in their study that students are more interested in viewing their marks than listening to the teacher's feedback. Moreover, Davison [22] attributed the failure of adopting FA by English teachers in Hong Kong to their preference for attaching each assessment with a mark because it is highly valued by the students and their parents.

Another significant AfL strategy is self-assessment. Table 2 shows that teachers have a good understanding of this practice in the context of AfL. The high average score ($M=4.40$) shown in Table 3 suggests that the teachers believe in the effectiveness of self-assessment, but they rarely implement the strategy in actual practices ($M=2.53$). However, T1 reported that he implements the self-assessment strategy in the classroom based on his determination of the level to which he wants the students to achieve and the point where the student is located in the learning. In addition, T1 asks the students to compare the outcomes after each step in the learning process to identify their improvement. He believes that this strategy has a positive impact on student motivation and learning and that it helps him to open discussions with the students and to encourage them to take more responsibility for their learning. T2 also claimed that he sometimes uses this strategy during lessons. Conversely, T3 stated that overcrowded classrooms and the inability of students to assess themselves have prevented him from implementing the self-assessment strategy. Similarly, overcrowded classrooms were reported by the teachers as an obstacle to applying AfL strategies (Table 4). Moreover, they consider assessing the students as a burden on their work (Table 4).

The response by T3 regarding the difficulties he experienced in applying the self-assessment strategy is consistent with the findings reported by Davison [22]. According to the author, English teachers in Hong Kong claimed that the heavy workload schedules and the number of the students in the classroom were real hurdles to implementing effective AfL practices. Nevertheless, teachers should consider that allowing the students to assess their performance does not mean that the teacher has to give up his/her responsibility. In contrast, Gipps [40] argued that implementing the self-assessment strategy in the classroom can support collaboration between the teacher and the students because the students will apply the criteria developed by the teachers in their work. Gipps considers cooperation between the teacher and the student as the key to success. The responses from T1 regarding the need to engage students in the self-assessment process align with Gipps' [40] suggestions.

Allowing students to employ peer-assessment practices as part of the AfL strategy is useful for their learning. The average score of 4.40 (see Table 2) indicates that the teachers well understand the importance of this strategy, but rarely implement it in their actual practices ($M=2.87$). During the interviewees the teachers further expressed their opinions regarding the use of peer assessment. T1 and T2 stated that they implemented this strategy with their students because it gave the students the skills to discuss and explain their answers to their peers.

Furthermore, they believed that asking the students to assess each other helped them to appreciate that mistakes are part of the learning process. T3 expressed the same view about self-assessment but added that "time is a huge hurdle in implementing peer assessment and the outcomes of the strategy are not reliable and valid".

In this regard, scholars have canvassed the validity of peer assessment in their research studies. For instance, Topping [45] analysed more than 30 studies conducted from 1980 to 1996 related to the validity of peer assessment. He found 80% of the studies demonstrated a high correlation between the grades provided by peers and the teacher's assessment grades, indicating a high level of validity. On the other hand, Mowl and Pain [46] questioned the validity of the peer assessment method even if the students received training in how to assess their peers. In contrast, Topping [49] stated that students who are involved in the peer assessment process will benefit as either the assessed or the assessor. Topping's opinion is consistent with what T1 and T2 indicated; whereas the conclusion drawn by Mowl and Pain [46] is more aligned with T3's comments.

7.3. Assessment Activities Applied by Teachers

The last two items of the survey sought to identify the most common assessment activities implemented by the teachers in the study. The results in Table 5 show that most teachers prefer using SA strategies or other strategies that are summative in nature than using FA strategies. Seven out of 30 teachers reported that they assess their students at the end of the unit or at the end of the term. One teacher explained that the reason for choosing SA over FA was that "the SA methods produce the most accurate and reliable outcomes compared to other assessment methods". However, some teachers, mostly Computer Science teachers, reported that they use games as tools to assess student learning. Furthermore, 10 percent of the teachers reported that they use FA strategies, and two stated that they do not consider it to be as effective as other types of assessment.

Additionally, the interviewed teachers indicated that they used various assessment strategies. For instance, T1 reported that each subject has its own assessment strategy. He added that subjects which rely on students memorising the information such as grammar and poetry use tests to assess student knowledge acquisition. T2 indicated his belief that students would be more disciplined learners if they were given monthly tests; whereas, T3 stated that he mainly uses discussion and direct questioning methods to measure the level of student learning.

It is evident that the teachers varied in terms of their understanding and implementation of assessment practices based on two factors; the subject they teach and the students they assess. This resonates with Akyeampong et al.'s [14] recommendation that experts explore and examine each teaching culture separately in order to gain insight into the rationales of teachers for choosing one assessment method over another. Furthermore, despite the great effort being made in the Saudi school system to adopt cutting edge assessment strategies, the teachers still prefer assessment methods that are summative in nature [11].

Lastly, Pryor and Lubisi [18] have pointed out that assessment practices of South African teachers do not reflect their understanding of how to adopt CA practices.

8. Conclusion

The aims of the paper were to investigate whether the high school Saudi teachers comprehend the meaning of AfL and whether their applications reflect their understanding. Also, the paper has shed the light on the most common assessment activities used by the teachers. The findings reported and discussed above imply that the teachers in this study practice formative assessment strategies in their lessons rarely even though they showed high understanding of the main ideas of AfL. The Saudi high school teachers who participated in the study agree that FA is useful for diagnosing the strengths and the weaknesses of student learning and for improving learning outcomes. Nonetheless, the practices of the teachers were relatively low due to the confusion about, or the lack of knowledge to distinguish between, the concepts related to student assessments. That was obvious through their answers both in the questionnaire and interviews. Other teachers reported that they understood the purpose of various assessment strategies, but they could not apply the strategies due to uncontrollable factors such as large class sizes and the preference of old-fashioned assessment practices which produce marks instead of comments.

Moreover, some assessment procedures being implemented by the teachers were out-dated such as the unit questions or use of tests. The teachers who think that their assessment activities are not engaged to students pointed to the need to adopt new assessments' methods and strategies. However, the teachers who think their assessment activities do engage the students are using games and peer-assessment methods. The teachers formed their opinions because they viewed the assessments they implemented as helping to motivate the students to learn. Therefore, it is recommended that greater focus be given to assessment activities that help the students from feeling nervous or anxious while being assessed. This can be achieved via open and direct communication channels between the teacher and the students. Furthermore, the teachers should consistently vary their assessment activities based on the purpose of the assessment.

However, there are some limitations to this research study which should be acknowledged. First, the research was conducted while the Saudi teachers were on their summer vacation. The teachers may have provided different responses if the study was conducted during the school term. Furthermore, due to time restrictions and the summer vacation period, the researcher could not attend and observe the teachers implementing the assessment protocols discussed. Nevertheless, if I were planning to conduct another study, I would include a sample of Saudi students. This would help to discover their opinions on the types of assessments practices that have helped them to improve their learning outcomes. Moreover, the Saudi students' opinions, reaction and attitudes regarding the receipt of teacher feedback can be studied at a deeper level.

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