Teachers' Attitude toward Bloom's Taxonomy Model in Designing Formative Assessment in EFL Classroom, Saudi Arabia

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Abstract

Bloom's Taxonomy Model 'BTM' that can be used to help teachers to design formative assessment in EFL classroom. This study has become a fundamental educational tool to show teachers how to evaluate their students throughout the educational process. 'BTM' allows teachers to move their students' skills from lower to higher levels when they study in each class. As being lecturers of English language for many years in Saudi Arabia, it is observed that, in Saudi universities, teachers are not consistent with formative assessment and have not been encouraged to implement formative assessment as a tool for increasing students' achievement levels. This study aims to investigate the teachers' attitude regarding the using formative assessment in teaching English as a foreign language. It shows in brief how instructors can design activities in teaching and evaluating students through the Bloom's taxonomy model in literature review. The study adopted descriptive and analytical methods. The researchers used a survey that distributed in the second semester (2021) to 64 participants in Saudi higher education to examine teachers' attitudes regarding utilizing formative assessment. The results showed that the teachers have positive attitudes toward using formative assessment in classroom. Therefore, this paper sheds light with some strategies that allow instructors to enhance their students' English level by increasing their cognitive skills.

***Keywords**: Assessment, Formative, Strategies, Bloom's Taxonomy, Cognitive*

1.0 Introduction

The main theoretical framework underpinning the present study includes the cognitive dimension of *'BTM'*. According to (Krathwohl 2002), Blooms' Taxonomy model created by Benjamin Bloom and some his colleagues in1956. Further, the Bloom's Taxonomy model was set into two dimensions: knowledge dimension 'knowing what', which includes four categories: factual, conceptual, procedural and metacognitive knowledge. It is the teacher's responsibility to move the students from factual knowledge to metacognitive knowledge. Generally control how is learning is defined, control how learning, happens, and control how learning is measured. (Anderson, Krathwohl, et al., 2001). The pyramid below represents a hierarchy, which represents types of tasks that are of increasing six levels of cognitive complexity: Remember, understand, application, analysing, evaluation, and creation that will be discuss in details in literature review below.

The taxonomy is represented as a pyramid (Figure 1).

1.2. Objectives of the Study:
The main objective of the study was to examine teachers' attitudes in using formative assessment in the EFL classroom in improving both lower and higher thinking skills through Bloom Taxonomy Levels 'BTL'.
1.3. Questions of the Study:

What do EFL teachers think about the use of formative assessments in their EFL class?

Q1. To what extent do teachers use formative assessment to improve Saudi EFL students' lower thinking via 'BTL'?

Q2. To what extent do teachers use formative assessment to improve Saudi EFL students' higher thinking via 'BTL'?

2.3. Literature Review:

2.3.0 Formative Assessment and Bloom's Taxonomy Model

Formative assessment has various shapes ranging from easy to complex (Molly Russell Underwood, 2012). According to (Alotabi, 2014) the formative evaluation is very necessary to follow up the learners and enhance their educational process. Faculty need to follow 'BTL' example to help them be challengers and think critically and analytically by applying formative assessment measures such as individual observation, reviewing learners' classwork and homework, un-ended questions, self-evaluations and reflections (McGlamery & Shillingstad, 2017). Ostrowski, Sabrina (2014) mentioned that such Bloom model has a great influence on the students' motivation in-depth evaluation and creation.

2.3.1 Formative Assessment for remember Level

According to Anderson, Krathwohl, et al., (2001) "Remember Level" in Bloom's Taxonomy means that teachers need to design for the students' activities that help them to motivate the students' exhibit memory of previously learned material by recalling facts, terms, basic concepts and answers. An instructor can use (K–W– L) which stands for (know, want to know, and learned; Ogle, 1986). In addition, according to Willingham (2008) the teachers can use a technique called "Asking Why" to motivate the students' memory.

2.3.2 Formative Assessment for Improving Understanding Level

According to Anderson, Krathwohl, et al., (2001) "Understanding Level" in 'BTL' activities help them to demonstrate understanding of acts and ideas by organizing, comparing, translating and stating main ideas. In addition, paraphrasing technique can encourage, lead, and affect the students' understanding (Hans, 2017). Oshima and Hogue (1983) set four steps. The instructor can have students follow which are: a) students have to read target text many times, b) they should be given enough time, c) they should be involved in writing out the main idea and secondary ideas of the target text d) the teacher asks them to rewrite the text by using different terms and structure.

2.3.3 Formative Assessment for Applying Level

According to Anderson, Krathwohl, et al., (2001) "Applying Level" in Bloom's Taxonomy means that teachers need to design for the students' activities that help them to solve problems to new situations by applying acquired knowledge, facts techniques and rules in a different way. There are terms associated with third level (Apply) that are describing intellectual behaviours of "Apply Level" such as apply, dramatize, solve, prepare, draw, produce, show, choose, paint, Apply, build, choose, construct, develop, model. etc. The teacher can evaluate the students' applied knowledge by looking at their performance in doing applied activities such as "Application cards". This exercise aims to improve students' ability of creative thinking, to apply learned rules and theories to a new problem and situation, to draw interferences from observation (Rüütmann & Kipper, 2011).

2.3.4 Formative Assessment for Analysing Level

According to Anderson, Krathwohl, et al., (2001) "Analyse level" in 'BTL' means that teachers need to design for the students' activities that help them to examine and break information into parts by identifying motives or causes. They can compare, analyse, classify, infer, test, etc. According to Küçükoğlu, (2013) there are different activities that teachers can use to improve the students analytical reading skills like:

2.3.4.0 Inferring Strategy

Inferring refers to reading between the lines. Students need to use their own knowledge along with information from the text to draw their own conclusions.

2.3.4.0 Making Connections

Learning becomes meaningful when the learner connects the ideas of classroom lectures to their experiences and beliefs, e.g., "text-to-text, text-to self, text-to- world" strategy.

2.3.5 Formative Assessment for Evaluating Level

According to Anderson, Krathwohl, et al., (2001) "Evaluate level" in 'BTL' means that teachers design activities that help their students to present and defend opinions by making judgments about information, validity of ideas. Hamp-Lyons and Condon (2000) stated portfolios are a great strategy for allowing students to edit and review their course work before the final evaluation.

2.3.6 Formative Assessment for Creating Level

According to Anderson, Krathwohl, et al., (2001) "Create level" in 'BTL' means that teachers need to design for the students' activities that help them to compile information together in a different way by combining elements in a new pattern or creating their own projects. "Create Level" such build, change, combine, compose, create, etc. Wijayati, et al., (2019) stated that project tasks such as giving presentation, creating poster, writing research paper, which motivate students' skills in planning to apply the higher 'BTL'.

3.0 Methodology

This study aims, to explore EFL teachers' attitudes regarding the use of formative assessments in their classes. This study conducted at King Khalid University and Jazan University during the academic year 2021. It is descriptive study, intended to explore the participants' perception toward using 'BTL' to design formative assessments. All participants are members of EFL Institutes in the study setting. The most of them are the doctorate of philosophy holders and have enough experience of more than seven years of teaching English at university level in King Khalid and Jazan Universities. Convenient sampling method been used for the study period from 11-1-2021 to 30-4-2022.64 English teachers were participated in the study. Online a 15-item-questionnaire used for data, which consist of 15 statements.

4.0 Results and Discussion

This study is in the form of tabular charts, and the analysis done in the form of the comparison of percentage of groups of 64 participants.

Table (1) Formative Assessment for Remember Level

I like to engage my students in activities that motivate the previous and existence memory

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strrongly disagree	3	4.7	4.7	4.7
	Disagree	1	1.6	1.6	6.3
	Neutral	1	1.6	1.6	7.8
	Agree	24	37.5	37.5	45.3
	Strongly agree	35	54.7	54.7	100.0
	Total	64	100.0	100.0	

Table (1) shows majority of English teachers like to engage their students in activities that motivate the pervious memory. Therefore, the data based shows that (if we merge the strongly agree and agree) about 92.2% of the participants agree to use the formative assessment in activities to motivate their students' memory and understanding. About 6.3% disagree to use the formative assessment to evaluate their students and 1.6% of them are not sure to use it. Therefore, the majority of the participants agreed to motivate their students via formative assessment.

Table (2) Formative Assessment for Understanding Level

2.I evaluate students' comprehensive activities in my practice.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strrongly disagree	1	1.6	1.6	1.6
	Disagree	1	1.6	1.6	3.1
	Neutral	4	6.3	6.3	9.4
	Agree	30	46.9	46.9	56.3
	Strongly agree	28	43.8	43.8	100.0
	Total	64	100.0	100.0	

Relating to the above table (2) about 90.7% of the participants evaluate their students' comprehensive activities in their EFL practices. About 3.2% of them disagreed to evaluate their students through formative assessment and 6.3% of the teachers are not sure to use such form of evaluation. Results showed teachers have positive attitude toward using formative assessment. The participants' mean score was quite positive and the majority (58 out of 64=90.7%) use understanding level in Bloom Taxonomy in their activities.

Table (3) Formative Assessment for Applying Level

3.I let my students to evaluate themselves by solving problems.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strrongly disagree	2	3.1	3.1	3.1
	Disagree	3	4.7	4.7	7.8
	Neutral	8	12.5	12.5	20.3
	Agree	35	54.7	54.7	75.0
	Strongly agree	16	25.0	25.0	100.0
	Total	64	100.0	100.0	

The most obvious finding to emerge from the analysis is that clear in the above table (3) results explained that about 79.7% of the participants agreed to apply solving problem strategy as a formative assessment. About 7.8% of them disagreed to let their students evaluate themselves via formative assessment application. There are about 12.5% of them neutral and have not decided yet to use applying formative to evaluate students. Results showed that teachers have positive attitude toward giving students many opportunities to evaluate themselves by applying solving problems.

Tables (6) shows Teachers' Formative Assessment for Analysis Level

Items	Freq.	Agree	Freq.	Neut.	Freq.	Disag.	Freq. T	Cu. Per.
I try to understand why my students succeed or failed in exams	54	84.4%	7	10.9%	3	4.7%	64	100.0%
I always use formative assessment activities.	36	56.3%	17	26.6%	11	7.1%	64	100.0%
Students need opportunities to re-evaluate their understanding of the content.	52	81.2%	9	14.1%	3	4.7%	64	100.0%
The homework grade is important to understand the student learning.	46	71.9%	13	21.9%	4	6.2%	64	100.0%
I like to use a continuous assessment to involve my students.	53	82.8%	7	10.9%	4	6.3%	64	100.0%
Mean		75.3%		16.88%		7.8%		100.0%

In regards to the above table (6) about 54 of (84.4%), 36 (56.3%), 52 (81.2%), 46 (71.9%) and 53 (82.8%) and the general mean of 75.2% of the participants believe that students need opportunities to re-evaluate their understanding of the content. About 3.1 % of them disagreed to analyse the results of the English subjects. In the same time, about 18% of the participants are not sure to re-evaluate assessments on improving students' performance. And 4.5% disagreed to use formative assessment in home grade. The majority of participants who are (49 out of 64=76.5 %) having positive attitude regarding using analysis level activities in Bloom Taxonomy.

Table (7) Formative Assessment for Evaluation Level

Items	Freq.	Agree	Freq.	Neutral	Freq.	Disag.	Freq. T	Cu. Per.
I assess my students through quizzes and final evaluation only	22	34.4%	12	18.8%	30	46.8%	64	100.0%
My students use graphic organizer to be evaluated.	17	26.6%	24	37.5%	23	35.9%	64	100.0%
I have my students using self and peer assessment via formative evaluation.	38	59.4%	15	23.4%	11	17.2%	64	100.0%
Mean		40.1%		26.6%		33.3%		100.0%

Concerning tables (7) There are 22 participants of percentage (34.4%),17 of percentage (26.6%) and 38 of percentage (59.4%) and general mean (40.1%) in this study found that teachers evaluate their students via formative assessment by quizzes and final evaluation, using graphic organizer, self-assessment emerging the three statements. In the same time consequently about 30 participants of 46.9%, 23 participants of percentage 35.9% and 11 participants' equals 17.2% of the participants disagreed to use quizzes, self, and peer-evaluation via formative assessment only. It means that, they do not let their students to evaluate themselves.

Table (8) Formative Assessment for Creation Level

Items	Freq.	Agree	Freq.	Neutral	Freq.	Disagree	Freq. T	Cu. Per.
I have my students to create their own project at the end of the term.	35	54.7%	16	25.0%	13	20.3%	64	100.0%
I have my students create their own research projects.	26	40.6%	20	31.3%	18	28.1%	64	100.0%
Mean		47.6%		28.2%		24.2%		100.0%

Another possible explanation for this is that in the above table (8) there are 35 participants of (54.7%) and 26 participants of percentage (40.6%) and, about 13 of the sample equals 20.3% of the participants disagree and in the same regards almost 18 participants of 28.1% also disagree to let their students create their own projects. The participants' mean score variable on analyzing student's results were quite positive and the majority of them (54 out of 64=84.4%) the general mean of 47.6% of the participants believe that students can create their own projects such e-book..

Tables (9) Teachers' Formative Assessment Attitude

Items	Frequency	Agree	Freq	Neutral	Freq	disagree	Freq.	Cu. Per.
Assessment is a tool used only by the teacher	18	28.1%	18	28.1%	28	43.8%	64	100.0%
I use formative assessment every day in my classroom	32	50.0%	19	29.7%	13	20.3%	64	100.0%
Mean		53.1%		28.2%		24.2%		100.0%

This result may be explained by the fact that formative assessment is a tool not used only by the teacher which is clear in table (9) 28 out of 64 that means (43.8%) of the participants disagree by using such type of evaluation, while about 18 out of 64 (38.1%) of them agreed to use formative assessment in general level. In the same regards, about 32 out of 64 (50%) of the participants agreed to use it every day in general level, the general mean is 53.1% which is high level, but 13 out of 64 (20.3%) of them disagreed to use it always in their classes. The results show that, there is a significant positive attitude towards using formative assessment in different ways.

5.0 Conclusion and Recommendations:

Based on the findings, it is clear that teachers' attitude have some strengths in lower level thinking rather than higher levels. Although, the teachers have positive attitude to motivate students' lower thinking skills: knowledge (92.2 %) and understanding (90.7 %), but they have moderate attitude toward utilizing

assessment in applying knowledge (79.7 %). In the light of the findings of this study, the researchers concluded that: from the data analysis, results indicate that, the teachers' attitude regarding higher level thinking skills: analysing (75.2%), evaluation (47.7%) and creation (47.7%) which show that, the participants have some weakness in higher-level thinking. Therefore, they need a type of a new pattern of training and innovative approaches by giving students many opportunities in exploring, creating projects evaluating themselves, solving problems and, writing research papers. Moreover, the researchers suggest that, policy- makers, educators and teachers focus on learning, teaching and formative assessment can design different types of strategies and assessment forms to develop teaching process.

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