Formative Assessments in Indian Context and Its Role in Active Learning Approach

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Abstract--- Formative Assessment otherwise known as Assessment for learning is an inevitable and integral part of any session or a classroom practice. Assessment for learning is a self-explanatory phrase that suggests the objective of formative assessment. In this paper, I am going to present the prevailing misconception about the formative assessment among most teachers. The paper will attempt to present the salient purpose of formative assessment and its role in active learning approach while discussing how the traditional methods have used formative assessment without much knowing about the literature behind it. The paper also attempts to throw light on how active learning approaches capture the true essence of the fundamentals of formative assessments. In an attempt to explicitly present the usefulness of Formative assessment, the paper would present some important concepts that are associated to it such as learning outcome, success criteria, feedback and rubrics. In the paper, I would present the data collected from a quantitative survey conducted to measure the teachers' understanding of formative assessments and their practice in the classroom. To conclude, the paper suggests a variety of assessments which are less time consuming and more efficient in assessing the students understanding of the concept.

Keywords--- Formative Assessment, Active Learning, Feedback, Rubrics, Learning Outcome.

I. INTRODUCTION

Education in India has undergone a sea of change since its independence in 1947 and continues to evolve and adapt to modern teaching approaches. There are numerous impediments that restrict a change and one such is the area of assessments. Although, one can see teachers shifting from traditional teaching methods to more students-oriented classroom, it is just a smatter. Active learning is becoming more and more relevant in the modern days with the need of shifting the focus to the learners and their needs. This an approach that caters to the needs of different learner styles and allows teachers to understand individual student better as his/her focus shifts from an hour-long lecture to more observe and facilitate. Active learning ensures learners to think critically and become creative by employing higher-order thinking skills; it also encourages them to develop their own attitude and skills with their active participation in a social context (Bonwell,1991). The approaches in active learning method roots to constructivist theory and discovery learning. Some of the advantages of active learning strategies are that students are no longer in passive mode, creates an enjoyable and creative environment, engages in meaningful conversation, links the new knowledge with the prior-knowledge thus deepening the understanding, makes learners accountable of their learning, improves their meta-cognitive skills, makes students more independent, develops the higher-order thinking skills, engages them in a social context by using the target language, introduces them to multiple resources

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and learning strategies, utilizes multiple-intelligences approach thus giving opportunity to every student, explores new learning material and uses Formative assessment to improve skills.

Formative assessment which is also known as Assessment for learning is an integral part of any active learning classroom for studies have proved that FAs show a substantial improvement in the learners' performance. FA is the evidence of learners' achievement that is collected, interpreted and evaluated by the teacher, peers and the learners themselves to make the decision about the next step in instruction. The concept of formative assessment is understood and practiced differently in most Indian school today. A decade ago schools used to conduct formative assessment in the name of unit test which was an exam conducted every month to test the progress of the students on the syllabus covered that month, but recent studies state that such exams which are cumulatively conducted and graded are not a perfect formative instead it is a summative assessment. Summative assessment otherwise known as Assessment of learning is testing the overall improvement of the students' knowledge in the respective subject this hardly constitutes to learning and therefore is not a tool to enhance learning instead it is a tool to assess learning. According to Black and William, Formative assessment is more restricted in a way that it provides evidence that the learning objectives were appropriate and achievable; it is formative only if the conducted activity or test informs the teachers about students' understanding of the concept which is interpreted by the teacher, learners, peers, to inform the future instructions in learning, that may be better and improved than the plans devised in the absence of the evidence.

Active learning methods in comparison to tradition methods enable teachers to conducted formative assessments regularly as part of their session plan and revise the plan for the next session based on the students' performance.

II. LITERARY REVIEW

The definition of the word 'Formative' is having a personal influence on a person's growth. This general definition of formative is very much relevant in understanding in the current pedagogic methods. Michael Scriven (1969) stated that formative assessment plays role in curriculum improvement while summative assessments is used to determine whether the chosen curriculum is suitable and achievable for the set of learners. Sadler (1989) suggested that FAs are a systematic process that continuously collects information and provides feedback all at once during the session allowing students to set the fundamentals right while Summative assessment is summing up the performance of the students over the year. According to William and Black (1998) assessments are activities conducted by teachers in engaging students in applying the skills learnt recently to inform the status of the students which can be used to inform us about the future learning. The concept of FA has undergone a revolution over the decades from a standardized test without much variety to test the students' performance to a concept-based test assessing the students' understanding and ability in applying the knowledge acquired in the novel context in an active and social context.

According to Black and William (1998), sharing success criteria, comment only marking peer and self-assessment and classroom questioning have proved to enhance students learning. Black and William drew three key processes suggested by a researcher Ramaprasad (William and Tompson 2007) linked them with three agents and derived five key strategies for FA and the big idea. The five key strategies suggested that learning intentions

(learning objective) along with success criteria should be shared with the students giving meaning the activity that they do in class; designing variety of classroom activities, discussions and task to elicit evidence of learning; give feedback to encourage students to improve their work; allowing peer-assessments thus encouraging social interaction in meaningful and constructive context and finally self-assessment thus make students accountable for their own learning. These 5 key strategies have proven to be successful enhancing the learners' learning. Numerous studies have proved formative assessment are closely associated with active learning classroom and AL strategies that enable learners to shed their inhibitions and work in a student-friendly environment while teachers focus more on growth mindset (Dweck) encouraging learners with developmental and descriptive feedbacks. Broadfoot introduced the term 'assessment for learning' as he suggested tat formative assessment can imply that an assessment is carried out frequently while the teaching is in progress. (William 2010). According to a researcher, formative assessments were differentiated into 3 types such as on-the-fly FAs, planned FA and curriculum imbedded FA. On-the-fly assessments are conducted regularly in every class to check the understanding of the students it should be a brief and quick way of assessing the students. Planned FAs are when the material and resources are prepared in advance and administered as a part of a session could be called a planned FA. Lastly, curriculum, imbedded FAs are the diagnostic test that are available in the textbook, coursebook or any prescribed material.

Efforts to improve the quality of education through formative assessments was implemented in the name of Continuous Comprehensive Evaluation and emphasized the need to stop using pen and paper test mode for FAs. To be more precise, it has attempted to explain the significance of each word in CCE; Continuous refers to the need of evaluating students regularly to bridge the learning gap, and give feedback and corrective measure taken regularly to enhance the quality of education; Comprehensive refers to focusing on the skills, abilities and learning styles of the learners and integration of scholastic with co-scholastic performances to evaluate a students. The document on CCE released by NIC was comprehensive however it suggests formative assessment can be assess periodically such as weekly, fortnightly, monthly etc. Nevertheless, the documents also don't mention formative assessments are best when they are not mark-based. All the methods of assessments are active learning strategies which infers that active learning methods are best to conduct formative assessments that informs both the learners about the next step in learning.

However, my study attempts to understand despite such comprehensive information presented to teachers understanding of Formative assessment, as majority of the teachers don't apply this in their day-to-day classroom or are unaware of the various techniques that they employ in class are fundamentally FA when it feeds-forward on the tomorrow's learning and students are given developmental feedback.

III. ACTIVE LEARNING STRATEGIES AND HOW THEY CAN ACT AS TOOLS FOR FORMATIVE ASSESSMENTS

In this section of the paper, I will justify why Active learning method is the best approach to integrate formative assessment in enhancing the performance of learners and encourage inclusive learning. Active learning or constructivists believe in engaging learners in a social context and most of the active learning strategies are pair or group activities which not only allow learners to engage in a meaningful conversation actively comprehending the

concept but also encourage peer assessment or self-assessment there by making students more independent. What teachers often miss to see is that formative assessment need not be formally conducted it can even be a conceptual map or hand signal cards that can be conducted in an impromptu manner. The activities designed in active learning classes sometimes overlaps with the idea of formative assessments. Active learning session are planned by referring to bloom's taxonomy raising the learning objectives from lower order thinking skills to higher order thinking skills. According to Black and William, variety of FAs should be administered to include different learner styles and attitude. The following are the elements that a best FA contains which also makes it an approach that engages learners not only in the learning process but also assessing their own work.

3.1 Success Criteria

According to John haitte sharing the learning intention and success criteria will enable learner to understand the purpose of each activity conducted in class and what they learn as a result of the activity. Learning intention is introduced in the beginning of the session letting students know agenda of the class while success criteria is shared with the students with elaborate description of what teacher expect of them when given an activity. Success criteria help students see what teacher uses as a criterion to assess their work. This enhances students' confidence, challenges learners to achieve the goal set for them, attaining conceptual understanding at surface, deep and conceptual levels.

3.2 Rubrics

Rubrics is not only a tool to assess students work accurately but also allows teachers to provide accurate and detailed feedback to students. This achievement criteria can be employed to assess variety of components. Studies state that, students' learning experience can be enhanced by involving them while preparing Rubrics. Sharing rubrics with students and asking them to self-assess the work enhance meta-cognitive skills among learners which is yet another principle of active learning method. Role of rubrics fosters deeper learning among learners and learners in group activity can use the rubric shared to better their work. A major misconception about active learning is that students are left unguided and students are not capable to guide their own learning, however, it is untrue as in active learning various aspects such as learning outcomes, teaching resources, instructions, formative assessment methods, activities, rubrics/success criteria everything is planned and prepared by the facilitators based on their understanding of the learners group. In the case of sharing rubrics, the same principle applies, rubrics is broken down to the understanding of the learning or sometimes rubrics are prepared by the teacher and the students together thus students are part of setting their goals in achieving their big goal.

3.3 Feedback

Feedback is not only reflecting on the work done by the students but as 'feedforward' which means shifting focus from past to future. This term was initially used in managements later used in education by Joe Hirsch, who mention the significance of feedforward in his book 'The Feedback Fix: Dump the past, Embrace the future, and Lead the way to change' Haitte and Timperlys' works were majorly based on feedback and according to the effect size of feedback it plays a positive impact on learners' development. Formative assessment should not be graded, it should have descriptive and developmental feedbacks; descriptive is giving elaborate feedback on how the learner

has improved and where he/she can improve instead of vague feedbacks like 'good' or 'satisfactory' while developmental feedback also allows learners to take on the responsibility and reflect on the work presented and improve.

3.4 Moment of Contingency

Moment of contingency is a critical stage where learning changes direction when the Formative assessment is administered. According too William and Black (2009), formative assessments sometimes pave way to a shift in the plans, for instance, while conducting a quick FA, teacher realizes that the level of the FA prepared is slightly high for her group of students so s/he immediately modify the plan to suit the learners competence. It may also happen during instruction, when a teacher explains the concept, she or he realizes that a concept is not clear which makes the current topic ambiguous to the learner, the shift in learning objectives is called moment of contingency. In order to be able to do this, teachers should be aware of their learners, and have clear idea of the 'Why' question, why should we teach a particular topic, the purpose and if there is a clear planning then these moments of contingency can be achieved and taken to their advantage.

3.5 Wait Time

This is a simple concept which most of the teachers may have undermined its significance in learners' performance. Wait time is basically the time allowed for the students to think the answer after the question is posed. Studies have proven that increasing the wait time has radically improved the performance, confidence and the motivation of the learners. According to Duell O K (1994), emphasized on the importance of the wait time and the consecutive improvement in the students' performance.

The above-mentioned elements make a classroom more student-oriented and have been proved to be the priceless elements of formative assessments.

IV. METHODOLOGY

In a quantitative survey conducted for my study in assessing teachers' understanding of active learning strategies, I had also included questions to learn the teachers' beliefs on FAs and their comprehension of a perfect FA. In this attempt, the question that I have asked given below.

After the list of questions, I will present the responses of around 25 teachers from 5 private CBSE schools in Chennai. I have picked the survey forms of CBSE teachers specifically to understand to what extent has CCE had impacted their practices. The study therefore will analyses the teachers' understanding of FAs and highlights where there is a gap that can be addressed to improve the quality of teaching and learning process in CBSE school and elicit the importance of active learning method is conducting variety of formative assessment developing multiple skills of students and easing the teaching learning process from cumbersome to fun.

Following are the survey questions related to Formative assessments; the response of the teachers will be calculated and presented.

Survey Questions on Formative Assessment

- Conduct an FA for every session.
- Grading FA paper.
- Giving short/brief feedbacks ('well done' & 'Good')
- Giving elaborate feedback (descriptive) for an assignment
- Using Self-prepared rubrics for activity
- Increasing the wait time after posing a question
- Peer evaluation is a method adopted in your session
- Give immediate and oral, individual feedback
- List the type of FAs you conduct in class?
- How often do you conduct a FA?

Of the 10 questions asked above the first 8 were questions for the participants to choose from the options 1 – 5 (1- Never, 2- rarely, 3-sometimes, 4-often, 5-always), while the last two questions were to be written based on their practices. In the next session, I am going to present the data collected from the questionnaires both in the written and graphical representation.

4.1 Data Analysis

There were 25 questionnaires collected from 25 teachers from 5 different schools located within Chennai. Of the 8 to-choose questions, for the first question which checks the understanding of FAs among test around 76% of the survey population have chosen the option 'Never' while 20% chose 'Rarely' and 4% chose sometimes. The second question which intends to measure the knowledge of FAs and its disadvantages associated with grading the paper, 80% of them chose 'Always' while 20 % chose 'Sometimes', this shows that FAs are graded which decreases the scope of feedback and development. The third and the fourth questions test the feedback method that teacher adopt in their classes in assessing a learner for which majority that is 72% of the teachers give them a one-word feedback while the question 4 graph shows the opposite. In this case, it is a complete misconception in presenting students the feedback. According to the analysis, very few teachers five developmental or descriptive feedback for, which shows that either they are unaware of the benefits of giving feedback or has not been insisted. From the graphs of question 5 one may infer that not many make their own rubrics instead they wither follow the rubrics as it is prescribed by the board or may even not used rubrics to assess the work. Peer-evaluation seems to be a technique at least all teachers attempt either elaborately or sparingly nevertheless, the concept seemed to be familiar. Wait-time although a few teachers have marked the answer, I felt not many knew the concept of 'Wait-time', some teachers even left the questions unanswered. The last question on providing immediate oral feedback again was shows that it is a strategy at least all teachers use in different periodicity however, feedback at least in oral form is given although written feedback is best suited for students to reflect and improve the quality of work.

The next two questions which were written elicited the following data: Majority of the teachers conduct pen-and-paper tests, besides that the options given were quiz, project work, power-point presentations, group work, match the following, multiple choice questions, oral presentation were the responses given by the teachers in the survey sheets.

For the question, how often the FAs are conducted the responses were 'once in a month', 'twice in a month', once in a week', 'after every chapter/topic', and 'alternative days'.
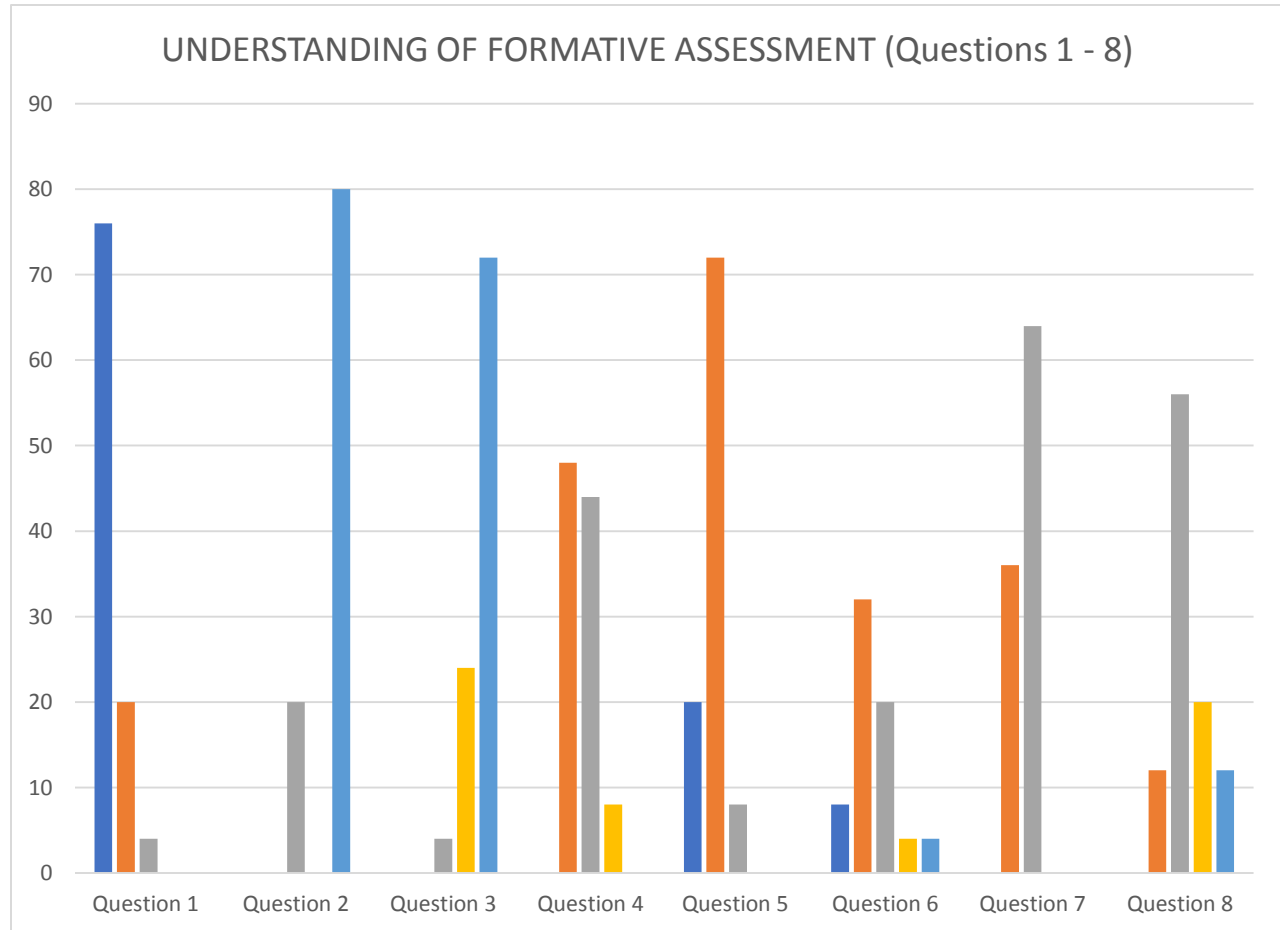
Blue – Never Orange – Rarely Ash: sometimes Yellow – Often Sky blue – Always

V. RESULT ANALYSIS

After studying the graphs and responses of the participant, one could draw a conclusion that majority of the teachers haven't understood the purpose of formative assessment. The contrast in the third and fourth question shows that the teachers are still following the old methods of rewarding the students with a star or a positive comment which dates back to behaviorist approach. In the survey questions although the first and the 10 questions are basically the same idea, I wanted to know specifically the frequency in which they conduct an FA. If one notices the type of FAs mentioned by the teachers closely, it is obvious that the type of FA that have been mentioned are mostly the one suggested in the circular of CCE. Teachers are not aware that an FA can be something like asking the students to raise the hand if they think the statement is 'true. Wait-time is yet another concept that most teacher were not sure as during the survey there were a couple of teachers asking the researcher what it meant, and there were teachers who have left the question without attempting. Rubrics again seemed to be a grey-area among teachers as the majority stated that they rarely prepare their own rubrics. When rubrics are not set according to the learner group

the motivation to achieve it will lack and the performance might not be notable. Rubrics or success criteria are key elements to enhance the quality of assessment. Although giving immediate oral feedback was considered by most teachers, it would be better when it is written as the students get too refer and reflect. If these developmental feedbacks include a target for the learners, it would challenge the students to study with a set goal in mind. Peer evaluation on the other hand show that not many teachers use peer as a tool in developing skills, this also become a point to highlight the importance of active learning strategies in classroom which makes it inevitable to avoid peer-assessment and evaluation. The analysis highlights the need to incorporate these practices by conducting more workshops and seminars in respective areas where a reformation is much needed and Using active learning method and understanding the actual purpose of Formative assessments top the list in order to prepare students for the future.

VI. CONCLUSION

This study was to emphasis the need to enhance the teachers' knowledge of modern pedagogical practices in order to tread along with the fast-pacing world. With the invent of technology, the students will go to places seeking opportunities and in the world filled with myriads of opportunities we should prepare our students to face the competitive world and that can be achieves only if the educational practices are reformed and revised to be on par with the standards of the world. A lot has been changed over the decade and a lot more has to be changed and that begins by updating the teachers with modern pedagogical practices, giving them more opportunities and space to explore variety of methods and practices.

VII. LIMITATIONS

The study could have added more variety of questions related to formative assessments and probably an interview with the teacher would have given me more insight into the day-to-day practices in the classroom. Although this data has given me enough information to understand the teachers' take on Formative assessments, it may have failed to given an elaborate information about their classroom practices which would have added value to the research.

VIII. ACKNOWLEDGEMENT

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