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ASSESSMENT STRATEGIES FOR IMPROVING THE TEACHING-LEARNING PROCESS FOR QUALITY OUTCOMES

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TEACHER EDUCATION AND DEVELOPMENT | REVIEW ARTICLE

Assessment Strategies for Improving the Teaching-Learning Process for Quality Outcomes

Esther Durowoju, Adams O. U. Onuka, & A. Adesoji Oni*

Abstract: Assessment of learning outcomes is a part of a whole of the instructional process at every educational institution. In the education system, the assessment of students' learning outcomes is the most veritable parameter that is used to ascertain the justification for the money and other resources expended in the education system. It is pertinent to mention that in recent times, stakeholders seem to attest to the fact that most students acquire knowledge well via individual involvements and by linking novel evidence or materials with what they previously believe or comprehend, and this is achieved when teaching strategies that promote students' involvement are used. However, it is not a gainsaying to stress that stakeholders need to acquire adequate knowledge of the three forms of teaching strategies in order to assess teachers' classroom strategies (teaching strategies and maintaining students' discipline) effectively. Therefore, this study makes a discourse on the forms of teaching strategies and the various ways of assessing teachers' classroom strategies.

Keywords: Assessment, strategies, teaching-learning, quality and outcomes.

Assessment of learning outcomes is an essential part of the teaching and learning process. Assessment of students' learning outcomes is the most veritable parameter is used to ascertain the value for the money in an education system. Also, it is utilized for ascertaining the extent to which educational goals and behavioral objectives have been achieved. In practice, assessment by the school system by stakeholders, especially school administrators, teachers, parents and examining bodies to a large extent is usually restricted to students' learning outcomes with little attention paid to the assessment of teachers, main executors of the school curriculum.

The teaching and learning process is a classroom interaction that is usually between the teacher and the students and the actualization of instructional objectives largely depends on the teacher's competence and effectiveness in facilitating classroom interaction. To enhance teachers' effectiveness and competence in order to engender improved students' learning outcomes, it is imperative that teachers' teaching strategies and style of facilitating interaction should be equally assessed by stakeholders. It is well known that most often principals of secondary schools in our clime pay less attention to teachers' assessment but concentrate more on their administrative role. To corroborate this, DuFour and Mattos (2013) reported that principals do not have the time and expertise to enhance students' learning by assessing classroom strategies through classroom observations. When teachers' classroom activities are assessed to discover their areas of strengths and weaknesses for improvement. Such may necessarily improve teaching and learning interaction facilitation and concomitantly students' learning outcomes. Therefore, it is imperative that school-heads and teachers acquire adequate knowledge of the forms of teaching and assessment strategies. To this end, this discourse will dwell on: 1. the meaning and forms of teaching strategies; 2. the various ways of assessing; and, 3. improving teachers' classroom strategies.

1. Literature Review

1.1. Meaning of teaching strategies

Teaching strategies refer to methods/techniques employed by teachers to assist students to effectively learn, with the aid of teaching materials. Instructional (teaching) strategies are used to pass on learning experiences to the students. Teaching

strategies are the media the instructor uses to help students acquire instructional content. There exist various forms of teaching methods depending on the content of the instruction or skill the teacher wants to convey to the learner(s), the level and age of the learner(s), student's background, knowledge, environment, and learning goals. The teachers must ascertain the diverse available learning methods to develop the right practices required to facilitate teaching/learning interaction. Teaching methods include lecture, case method, active learning, blended, inquiry-guided instruction, class discussion, experiential learning, cooperative learning, group discussions, role-playing, guided discovery, use of concept mapping, field studies and assessment-based instructional strategies (Shinn, 1997; Parker & Thomsen, 2019).

1.2. Forms of teaching strategies

Teaching strategies can be categorized into three main variants: teacher-centered teaching strategy, student-centered teaching strategy and teacher-student interactive teaching strategy. Assisting stakeholders to effectively assess teachers' instructional strategies, it is essential to expose them to various forms of teaching strategies used to implement the curriculum in the classroom. There are three forms of teaching strategies which are diagrammatically presented below:

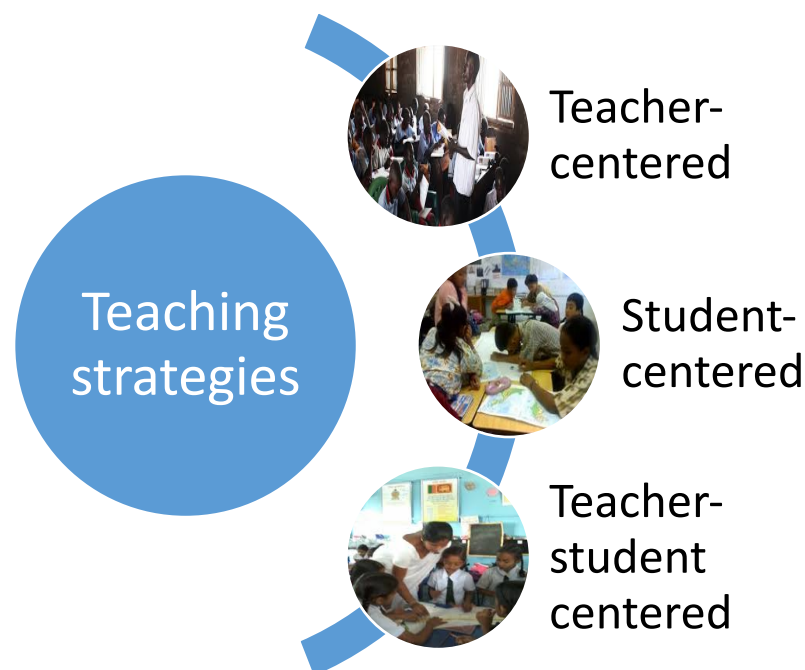


Figure 1. Categories of teaching strategies
Source: Designed by the authors

1.2.1 Teacher-Centered Teaching Strategies

A teacher-centered approach is a teaching method that places all activities in the classroom on the shoulder of the teacher. It makes teaching very active while learners are passive listeners who take whatever the teacher says. The teacher is presumed to be the owner and transmitter of knowledge, and the students are passive receivers of that knowledge. This teaching method puts students in the receptive mode, and only listen when the teacher teaches. Learners, thus, only accept instruction from the instructor with almost no right of expressing what they feel about content delivery and assimilation. Examples of teacher-centered teaching strategies are lecture method, drill and practice, and direct instruction. In using the lecture method, the teacher more or less instruct students (one directionally). Direct instruction entails the teacher explaining or demonstrating the content, while drill and practice involve repetition of instruction by the teacher to engender skill or information memorization. For many years, the lecture method was the most commonly



used teaching strategy in classrooms. The lecture method assumes that students lack knowledge of the content of the subject that needs to be taught by the teacher who is assumed to be sufficiently knowledgeable.

Pooja (2017) submitted that teacher-centered strategy is the least practical, more theoretical and encouraging memorization. According to Pooja, this strategy does not give room for students' involvement, thus, discouraging students from hands-on experiences based on applied knowledge. The teacher controls the disseminating and sharing of knowledge, so they may try to maximize the delivery of information at the expense of learners' involvement in teaching/learner interaction. The negative effect of this is that learners' interest and understanding may be compromised. Overcoming the attendant, entails that the method be improved by making students active participants. The teacher-centered teaching, especially lecture, is the most common teaching behavior found in schools in some climes and it is not as effective as other methods.

1.2.1.1 Characteristics of Teacher-Centered Strategy

According to JManuelCamposN (undated), one of the major characteristics of teacher-centered strategy is that the teacher is the heart of knowledge and in control of learning. The teacher is assumed to be the custodian of knowledge and disseminates it to students, the learners are passive listeners only throughout teaching and learning session. Here the teacher solely administers teaching and learning activities; determining what and how students learn with no regard to students' involvement. Students are usually inactive, just receiving instruction from the teacher. The teacher is addicted to the lecture method rarely allowing students to interact with the teacher, among themselves. The content of instruction is mostly discussion.

In addition, the teacher is the information giver and chief evaluator of students' learning while students are passive receivers of knowledge, with little opportunity for contributions. By implications, students are assumed to be void of knowledge of the content of instruction. Teachers act as if they are the only source or supplier of knowledge, and under the direct instruction paradigm, teachers frequently employ organized and written lesson plans. The teacher-centered strategy is relatively low-tech, often relying on the use of textbooks, workbooks, and notebooks instead of technology/e-resources, while assessments are, in many cases, only carried out as summative, which rarely address qualitative issues of the learners as the teaching and learning are in progress. The teacher employs a teacher-centered strategy, dominates the interaction session unmindful of the needs, aspiration, interest, and development of learners' learning skills. Thus, a teacher-centered classroom reduces learners just being receivers of knowledge with no allowance for them to contribute.

1.2.1.2 Principles for Adopting the Teacher-Centered Strategy

The principle for using a teacher-centered strategy for improved teaching and learning outcomes are as follows:

- i. Sharing information that is not easily found elsewhere: This strategy will be appropriate and effective when the teacher has to disseminate information that is not readily available to students. It can be used when the curriculum is recently updated. However, the assignment/project is then given to students for further study.
- ii. Presenting information in a quick manner: Teacher-centered strategy could also be effective when the instructor needs to present instruction to learners within a limited time frame.
- iii. Generating interest in the information: When there is a need to arouse students' interest in a particular topic.
- iv. Teaching learners who learn best by listening: Basically, a classroom usually comprises students with varying backgrounds and learning abilities. This strategy could be effective in such a situation.

1.2.1.3. Benefit of Teacher-Centered strategies

The benefits of the teacher-centered strategy are that the classroom is well-arranged, allowing for little interruptions of teaching-learning activities. The students remain almost silent throughout the lesson period. The teacher has total dominion of the classroom and its activities and can become an effective model for the students.

1.2.1.4. The Losses of Teacher-Centered Strategies

The deficits associated with the use of teacher-centered strategies include: It hinders term-work among the learners. Learners do not have the opportunity to make adequate use of their communication ability in the classroom. The strategy does not inculcate self-independence in undertaking learning. A teacher-centered strategy does not allow students to develop effective study skills/habit. This strategy minimizes feedback from students, it assumes an unrealistic level of students' understanding, and often distances students from the learning process. In a teacher-centered classroom discourages hands-on. At the

primary and secondary levels, the strategy does help to stimulate students' interest in developing critical or analytical thinking skills. It also presupposes that all students learn in the same way.

1.2.2. Student-Centered Teaching Strategies (SCTS)

Students tend to be highly fascinated by learning activities when they can interact among themselves and participating



actively in the learning process. Chickering and Gamson (1987) observed that learning is not a one man's show, and students do not learn much when they just sit in class listening to teachers, memorizing facts and figures without contributing to the learning activities. Students learn better when they can discuss among themselves, linking the process to past experiences, and are able to apply learning experiences to their daily lives.

Learning is a shared activity because instruction is constructed both by the teacher and the learners. These strategies include a variety of techniques aimed at making students participate and experiment with learning actively. The teacher acts as a guide or facilitator for the activity rather than

the transmitter of knowledge. Student-centered teaching strategies are a paradigm-shift from lecture to participatory session. The aims of student-centered strategies are: to develop in students the ability for autonomous learning engagement during classroom activities.

Great Schools Partnership (undated) stated that these student-centered strategies are meant to address the divergent learning needs, interests, aspirations, or cultural backgrounds of individual students and groups of students. To corroborate this, Bingolbali and Bingolbali (2016), averred that the use of student-centered strategies implies that students and their learning needs should be the heart of teaching and learning activities. Therefore, a teacher considers students' difficulty in a particular concept, designs their teaching to meet the identified difficulty, it is student-centered.

Nigeria's public education system at all levels is characterized by large classes, though, the National Policy on Education (FRN, 2013) stipulates a teacher-student ratio of 1: 40 for secondary schools. Large classes do only encourage teacher-centered teaching approaches. Yet, studies have advocated the use of student-centered teaching strategies because they produce more positive outcomes. These student-centered teaching strategies are also known as active learning strategies (Wright, 2011; Serin, 2018).

Active learning strategies prompt both the learners and teachers to participate in instructional activities. Active learning is student-centered allows students to take responsibility for their learning. It allows students to work in partnership with their classmates. In active learning, teachers play the role of facilitators rather than sole providers of information. It is a broad range of teaching strategies that attempt to get students to participate in the learning process by engaging them to have hands-on experiences. This is in tandem with Meyers and Jones (1993) who posited that active learning creates learning environments that allow students to talk and listen, read, write and reflect as they interact with course content through problem-solving exercises, informal small groups, simulations, case studies, role-playing, and other activities that necessitate students to apply their learning achievement.

To learn actively, students must be involved in reading, writing, discussing, and solving problems. Koselyn, Nelson and Kerry (2017) averred that active learning helps to maintain students' concentration, deepen learning, promote higher-level skills like analytical or critical thinking and as well engage students who may be struggling. Active learning strategies include peer-teaching, short demonstrations (short cases/ scenarios), class discussions, question-and-answer technique, in-class demonstrations, games and simulation, brainstorming, think-pair-share, one minute paper, problem-solving, peer-review, cooperative learning, group projects, collaborative learning, debates, case studies (case-based learning), just-in-time teaching, role-playing, group discussion and a jigsaw (group teaching). These strategies enable students to learn actively. Active learning strategy engages students in reading, writing, discussing, and groups in solving problems to promote interest in analytical research, critical thinking, and collaboration.

1.2.2.1. Characteristics of Student-Centered Teaching Strategies (SCTS)

In a student-centered classroom setting, the kernel of teaching is paradigm-shift from the teacher to the students, grooming them to be self-directed and self-regulating since the teacher hands over the responsibility of learning to the students. It has been proven to be one of the most effective ways of assisting students to acquire the abilities needed for self-regulatory problem-solving and stable learning. Its use gives students, the opportunity to express themselves freely. It also affords teachers the opportunity to find approaches that better provide learning experiences that relate to their experiences and value.

The characteristics of student-centered teaching strategies as adapted from Loveless (2020) are:

1. The classroom becomes a community. It allows students to speak while the teacher pays attention, interject and facilitates conversation when it is needed, commends the students for their involvement in the classroom activities.
2. The students gain confidence and can communicate. A student-centered learning environment promotes confidence and open communication in the learners. To students build trust and freely communicate, teachers must engage students in discussing the goals of learning and rules guiding their activities in the class right from the beginning. Every student must participate in the discussion by given suggestions and ideas on how the classroom should look like while the teacher scribbles their suggestions and ideas on the board/projector. When teachers engage students in classroom discussions and write down their suggestions and ideas, it gives students the sense that their contributions matter.
3. The strategy creates an environment where learning is guided by mutual respect and a quest for knowledge. The environment is often rule-free and at the same time encourage students to learn with no distraction or boredom. An engaging classroom environment fosters mutual respect and encourages pursuit of learning.
4. In a student-centered teaching environment, take-home assignment is replaced by engaging project-based learning (PBL) activities. Loveless (2020) stated that some studies indicate that there is a positive correlation between homework and improved grades and test scores, as does the PBLI. PBL helps to identify real-world programs and to develop real-world solutions. Not only is project-based learning extremely engaging when implemented correctly, but the student learns as they journey through the entire project.
5. A student-centered teaching environment enables the teacher to create a portfolio of assignments to engage students. This trend helps the students to master the taught subject matter. Well-designed series of assignments aid the accomplishment of learning objectives. It also assists them to be gainfully engaged at their leisure and concomitantly master what they have learnt.
6. The student-centered teaching environment allows students to take part in decision making with regard the content of learning and delivery. This helps to promote collaboration between the teacher and students as well as among students. For example, when learning the history of Nigeria in an English Language comprehension passage, students might decide to engage in a class drama, where each student performs the role of particular ancient personality. This will afford each student to take ownership of the learning process as well as gain from the roles played by others.
7. Student-centered teaching classroom gives learners Students the opportunity to exercise their leadership prowess.
8. A student-centered teaching environment gets students involved in their performance evaluation, and the teacher provides qualitative or descriptive feedback that inspires students to continue learning until they achieve mastery of the content.

1.2.2.2. Principles for Using the Student-Centered Strategy (SCTS)

Six main principles that characterize the SCTS are as follows:

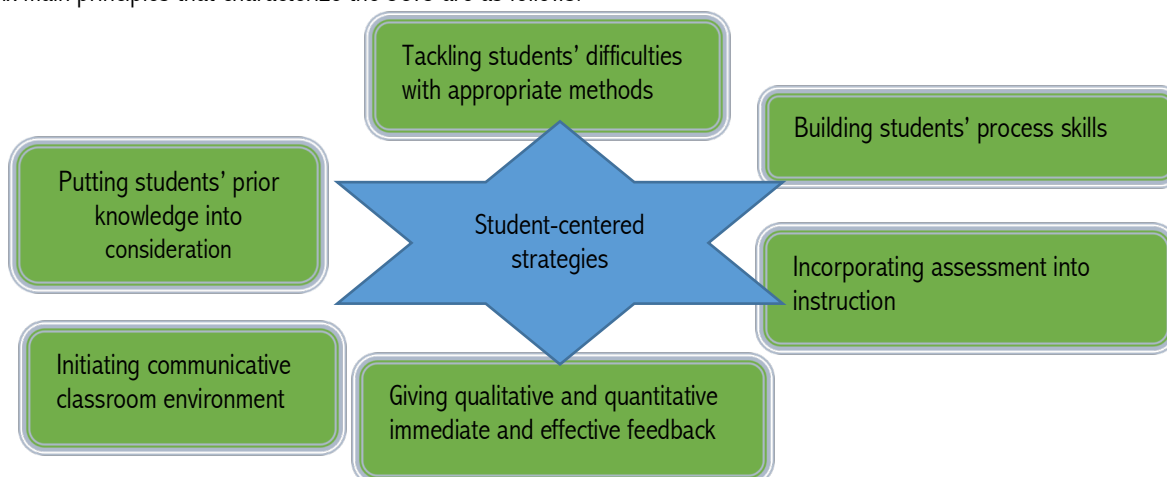


Figure. 2. Principles of student-centered strategies
Source: Adapted from Bingolbali and Bingolbali (2016)

A. Putting Students' Prior Knowledge into Consideration

One of the essential aspects of teaching and learning activities is prior knowledge. Bingolbali and Bingolbali (2016) emphasized the role of prior knowledge in the teaching and learning processes. Ausubel (1968) equally stressed that the most significant factor that motivates learning is the previous knowledge of the learner forms the basis for a new set of learning. The new content to be taught is always hinged on previous knowledge or entry behavior.

The concept of prior knowledge in teaching derives from constructivism theory. The psychological roots of constructivism began with the developmental work of Jean Piaget (1896–1980) where they postulated that prior knowledge has a significant influence on the learning process. Any information that has no connection with a learner's prior learning experiences hardly promotes retention. In essence, the teacher should take cognizance of the learners' prior knowledge. The entry behavior that the students bring to classroom interaction has a significant influence on what they learn.

B. Tackling Students' Difficulties with Appropriate Methods

Experience and studies show that students' mistakes, misconceptions, and learning challenges are common phenomena in classroom interaction. Neshet cited in Bingolbali and Bingolbali (2016) submitted that students are experts in committing errors. Thus, the teacher has the responsibility to guide learners in avoiding mistakes by involving in hands-on. The teacher should diagnose the learning difficulties of learners and devise means to guide them against errors (Santagata, 2004 cited in Bingolbali & Bingolbali, 2016). To determine the type of method to use in addressing students' learning errors. Since learning difficulties are one of the most significant variables that affect teaching and learning activities, student-centered strategies have the potential of addressing students' learning difficulties. Hence, student-centered teaching strategies are suitable for overcoming students' learning difficulties.

C. Developing Students' Process Skills

One major goal of education is to inculcate in students the ability to engage in critical thinking, reasoning, analysis, and deduct correlation among facts. In a bid to achieve this goal, many school curricula are designed not only to teach concepts but also to equip students with basic critical thinking and analytical skills. These skills, according to Bingolbali and Bingolbali (2016), are observation, communication, classification, measurement, inference and prediction. Such other skills are problem-solving, reasoning and proof of connections and representation (National Council of Teachers of Mathematics [NCTM] (2000). The advantages of these skills are: they help students to develop the ability to argue, explain and make connections reasonably; students are able to acquire theoretical understanding and significant learning, students become acquainted with problem-solving and attain the ability to relate learned concepts to real-life situations.

D. Incorporating Assessment into Instruction

Conventionally, assessment is carried out at the instructional activities. This is termed as summative and is concerned with cumulative or aggregate evaluations. In recent times, researchers such as Durowoju (2014) and Organisation for Economic Co-Operation and Development (2008) have recommended that assessment needs to be built into the instruction to enhance teaching and learning process. Assessment that is on-going with instruction is termed formative assessment. It helps teachers to identify learners' strengths and weaknesses during the teaching-learning process and enables teachers adapt different teaching methodologies. Formative assessment is an assessment *for* learning, because it assists learning achievement (Van de Walle, Karp & Bay-Williams, 2010). William (2007) views such assessment as a promoter of instructional delivery and learning achievement because it gives immediate feedback. Hence, Durowoju (2014) suggested using a variety of assessment techniques such as peer assessment, written quiz, project, individual assignment, group assignment, field trip, etc., to enhance learning.

E. Giving Effective Qualitative and Quantitative Feedback

Using assessment to enhance students' learning is a vital device to determine the strengths and weaknesses of students in learning facilitation. For assessment of students' learning to be worthwhile, provision of feedback to stakeholders is a must. Student-centered strategies, which entail teaching based on students' needs focus attention on the quality of the feedback (qualitative and quantitative) that students get. Qualitative feedback refers to the narrative (descriptive) feedback, while quantitative feedback consists of test scores in respect of students' performance in a given task.

F. Initiating Communicative Classroom Environment

SCTS afford teachers to teach students in groups. In other words, SCTS enables students to learn in groups, thereby promoting a communicative environment. A communicative classroom environment is a democratic setting where students have the liberty to express their questions, answers, make arguments, explanations and contributions. Therefore, to promote communicative classroom environment, different solution methods and reasoning skills are encouraged. Students freely express their opinion during classroom interaction and also allows them to develop analytical skills. The advantages of employing the principle of the communicative classroom environment are: it helps the teacher acquire a better understanding of students' needs; it enables students to express themselves without restriction and also helps teachers to diagnose the learners' difficulties.

1.2.2.3. Pros of Student-centered Teaching Strategies

The merits of student-centered teaching strategies are many. It is more effective because it is not one-way knowledge traffic since it presumed that the learner also has something to share. It is effective in motivating the learner because it is goal-oriented. It helps students to acquire critical communicative and collaborative skills through teamwork. Furthermore, it allows students to organize their own learning, ask questions, and complete tasks on their own. It enhances students' curiosity in learning since they can relate with one another actively. It enables students to develop critical thinking and creativity skills and, therefore, active knowledge contributors. Its enormous benefits make it possible to use it to engender improved teacher and students' effectiveness.

1.2.2.4. Cons of Student-centered Teaching Strategies

In spite of its huge benefits, there are demerits associated with its use. It may engender rowdiness because learners could freely talk during classroom interaction. It makes learning management somewhat difficult when students are working on different stages of an assignment. Some learners prefer to work independently.

1.3. Teacher-Student Centered Teaching Strategies

These strategies combine teacher-centered and student-centered approaches. This blended style is a joint approach that matches the teacher's personality and interests with students' needs and curriculum with the use of appropriate methods.

The subject knowledge acquired and produced by the students when this approach is used enhances the greater degree of retention. The approach allows students to explore knowledge on their own. It also promotes interaction between the teacher and students and concomitantly promotes learning achievement. It helps the teacher to employ a variety of teaching/learning techniques to promote effective learning achievement.



1.2. Factors to Consider for Choosing the Appropriate Teaching Strategies

It is noteworthy that there is no 'one-size-fits-all' right teaching strategy because the classroom dynamics due to the fact that learners have varied backgrounds, abilities and personalities. Certain factors are considered before choosing teaching strategies. These include learners' needs and interest, the content to be taught, the objectives to be achieved, accessibility of learning resources, the ability and willingness of the teacher to create instructional materials if standard teaching aids are not obtainable, evaluation mode, class size, counseling activities and students' personal diversities. Hence, an effective teacher must be creative and innovative in the use of teaching strategies. In summary, learners' backgrounds, diverse interests, learning needs, abilities and personalities, among others inform the choice of teaching strategies.

Otukile-Mongwaketse (2018) observed that teachers disseminate instruction using teacher-centered strategy more, benefit some learners minimally. However, Ganyaupfu (2013) found that teacher-student interactive method was the most successful teaching method, while student-centered method and teacher-centered approach followed in descending order. It is, however, obvious that most students learn better by having hands-on experiences, which could be better enhanced through teamwork. Thus, a teacher needs to consider these factors while choosing the most appropriate strategies to use.

1.4. Maintaining Students' Discipline in the Classroom

A well-coordinated classroom provides a conducive atmosphere for teaching and learning. A conducive classroom environment engenders students' self-discipline while teachers become better motivated to do better with high-level assurance, a high level of self-efficacy and self-esteem. Ehiane (2014) stated that discipline and academic performance

promote education. Verdugo and Glenn (2002), Chen (2008), Schoonover (2009) cited in Ehiane (2014) submitted that harsh disciplinary measures would not prevent students' future misbehavior. Experience showed that if school and classroom are effectively managed, there will be discipline, which will then engender improved academic performance. Ehiane (2014) investigated discipline and academic performance and found that effective school discipline has a significant correlation with students' behavior, thereby improving their performance and school goal attainment.

Effective discipline helps to teach and learning goals achievement, accountability and creates a good school climate and culture. It prepares learners for undertaking future tasks, concentration and stability in the learning environment. This has been corroborated by Ehiane (2014) who reported creative strategies to engender classroom discipline and effective learning achievement. Possession of classroom management by stakeholders can be effectively used to assess how the teacher's handling students' discipline. Illinois State Board of Education (2014) outlined the following procedure for enhancing discipline: Teaching classroom rules and procedures; teaching social and emotional skills; acknowledgment of appropriate behavior and desired social skills; given differential attention and response to inappropriate behaviors in a positive way; utilization of a variety of instructional modes; sustainable well-organized student learning materials; effective time management; and promotion of emotional, behavioral, and cognitive engagement and re-engagement of all students.

To effectively handle students' discipline, the teacher must be abreast of developments in their field. This is because the teachers' attitude, pedagogy, lesson planning and preparation and behavior do influence students' involvement in classroom activities. It is necessary that teachers should be composed, impartial and take control of the class in order to engender discipline. Teachers should show mutual respect to the students, dignify students, control their emotions, maintain calmness, eye contact, praise and correct, encourage, listen before disciplining students, be non-confrontational (Walters & Frei, 2007). Participatory strategies promote students' engagement in-class interaction and consequently, effective classroom management, and academic performance.

1.5. Stakeholders' Techniques for Assessing Classroom Strategies

It is a common practice to determine the effectiveness of teachers' classroom strategies through continuous assessment and (examination which does not necessarily promote learning). Therefore, assessing the effectiveness of teachers teaching strategies and students' discipline during the classroom interaction by teachers and school administrators become essential for improved teachers' effectiveness, enhanced students' academic performance and educational goals actualization. Stakeholders can assess teaching strategies using the following procedure.

1.6. Teacher's Assessment of Their own Classroom Strategies

Teachers can assess the effectiveness of their classroom strategies aside from using continuous assessment tools and examination by involving their peers (colleagues) and students in the evaluation process. Figure 3 shows how:

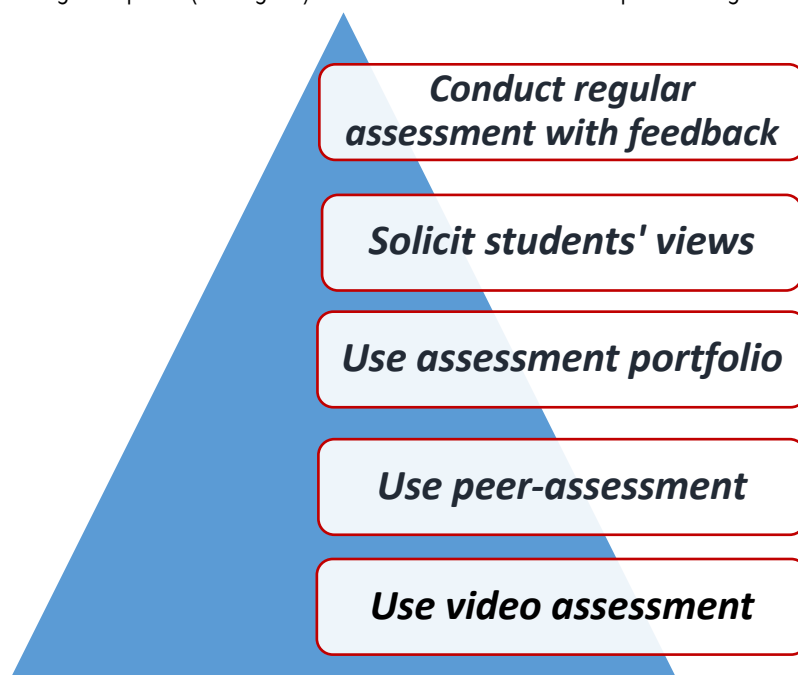


Figure 3: Teachers' assessment of their own classroom strategies.

Source: Designed by the authors

a. Conduct Regular Assessment with Feedback

For teaching effectiveness, teachers need to regularly assess what they do in the classroom to ascertain the extent to which their students have mastered the content of instruction, using the following steps:

- i. During classroom interaction, the teacher should ask students questions and give them time to answer. This enables the teacher to ascertain whether or not learners are grasping the taught content.
- ii. As the classroom is on-going the teacher allows students the opportunity to questions. For instance, the teacher asks: "What questions do you have?", this implies that the teacher expects questions from the students.
- iii. Give frequent, short, writing, and/or oral quizzes, peer assessment task. Also, make the students compare answers with their peers or seatmate. Open-ended questions should be given to the students. This will enable them to express themselves freely on the topic at hand.
- iv. Before the end of a classroom interaction session, teachers can ask students to write the most significant thing they have learnt about the topic at hand.

b. Solicit Students' Views

Teachers can use questionnaires and electronic mail to solicit their students' opinions about the classroom strategies they use. This will enable have the learners' perception of the effectiveness of their classroom strategies. The instrument should also solicit suggestions from the learners in order to flexibly adapt to new interesting strategies.

Teachers can reinforce students' understanding of the on-going classroom interaction process by asking them to

- (i) Repeat and explain the course's expectations (objectives) regularly.
- (ii) Giving students roles to play in the classroom. For example, if students always remarked that they are not getting along with the lesson, appeal to them to ask questions regularly.
- (iii) Endeavor to make changes to teaching method/strategy premised on the students' feedback.

c. Use of Assessment Portfolio

A portfolio assessment is used to examine and measure the progress of the teaching and learning interaction when students document change that occurs during learning facilitation. It is a sequential and systematic mode of self-evaluation of students to shows their learning achievement.

d. Use of Peer-Assessment

This involves conducting an effective structured classroom observation by a colleague. Teachers can successfully assess their teaching strategies and procedure for handling students' discipline using peer evaluation. The teacher invites a colleague to observe and rate their classroom management style including control (discipline).

e. Use of Video Assessment

This involves the use of technology to assess teachers' classroom strategies. The teacher can set a camcorder to record classroom interaction in order to capture the teaching and learning activities while it is in progress. This device affords the teacher to observe his teaching strategies, as well as students' activities as they occurred during the classroom interaction. The teacher can also engage his colleague to view and report their observations. According to National Research Council (1997), when the teacher is viewing the videotape they would normally ask the following questions: what are the particular activities did I do well?; What are the exact activities I could have improve on?; What activity(ies) kept the students involved?; When did students show poor concentration or lose concentration?; If I could repeat this session, what three or more activities would I modify?; And how do I affect these changes/modifications?

1.7. School Head's Assessment of Teachers' Classroom Strategies

The school head owes it a duty to oversee and assess the teaching and students' activities during classroom interaction. It ensures the employment of effective classroom strategies within a particular context so that learning achievement effectively promote through headteachers' feedback and remedial action. School heads assess their teachers' teaching strategies using the methods as shown in Figure 4:

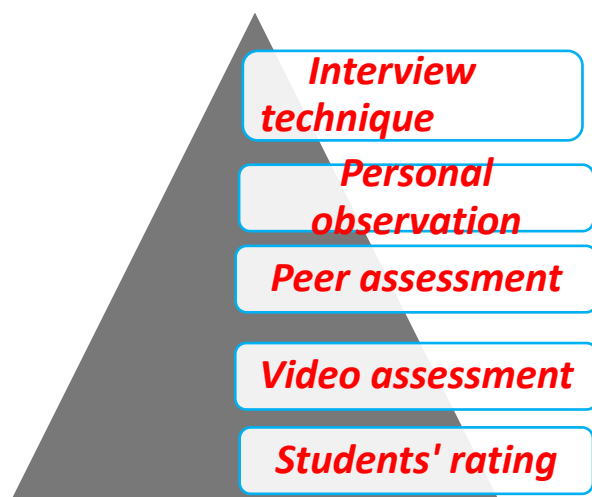


Figure. 4: School Head's Assessment of Teachers' Classroom Strategies
Source: Designed by the Authors

a. Interview Technique

School heads should interview teachers using the following questions: How satisfied are you with the subject you teach? What are the main focus of the subject and your teaching? What are the weaknesses of your students in the classroom activities? What interests you most about this subject? What are the topics you find difficult in this subject? If you are to teach the subject/topic again, what would you do differently?

b. Personal Observation

The school head also needs to personally observe the teachers' activities while teaching-learning activities are on-going. Experience has shown that teachers often ignore principals' assessment reports on them, as they assume that principals have little knowledge about classroom activities or that they are not objective. McLaughlin cited in Mitchell and Plake (2012) posited that teachers seldom respect principals as skilled classroom observers. Also, it is believed that most principals have little interest in assessing teachers' activities. Therefore, to effectively observe teachers' classroom strategies, it is important that school heads are trained on observation techniques.

Systematic classroom observation involves the use of expertly designed observation instruments for measuring classroom behaviors, record and analyze the outcomes thereof. Observation provides the opportunity to directly assess occurrences in the correct and in their true context. They are systematically documented analyzed for evidence. Observing actions and behaviors as they occur gives insights and understanding of the context of class interaction

c. Peer-Assessment

Peer-assessment refers to the assessment of teachers' classroom strategies by a peer premised on the benchmark. The school heads who initiate such can adopt the following steps:

- i. Set up a team to work in small groups to observe one another's class interactions.
- ii. Organize a pre-observation seminar to deliberate on goals for the observation, and also a post-observation seminar to discuss what transpired in class during the visit.
- iii. Other strategies such as interrogating students, assessing materials and evaluating student activities can be used to measure classroom strategies.
- iv. Inform the students about the assessment and the reason for it.
- v. Form teams of teachers from a similar discipline who can make a critique on content and strategy.
- vi. When a new teaching strategy is being experimented with, use a co-teacher who has comprehensive experience with that strategy.
- vii. Document observed behaviors so that teachers can learn from the process for improvement.

d. Video Assessment

Principals may also assess teachers' classroom strategies using video. This entails the use of technology to assess classroom interaction strategies. CCTV may be used while interaction is on-going. This device affords the principal the opportunity to

observe the teaching strategies as employed during classroom interaction. Some questions the school head should ask when viewing the videotape as adapted from National Research Council (1997), are: what are the actual activities the teacher performed well?; What are the actual activities they could have done better?; What activity(ies) involved the students?; When did students lose concentration or lose focus?; If the teacher is to repeat this session again, what three or more things would he/she modified? How would the teacher go carry out those modifications?

e. Students' Rating

School heads can assess teachers' classroom strategies by asking students to rate the effectiveness of classroom strategies. The outcome of the rating is useful for improvement or decision making. Students' ratings can be conducted weekly or twice a month. School heads can give a rating scale to students to enable them to rate the effectiveness of the classroom strategies employed by their teachers.

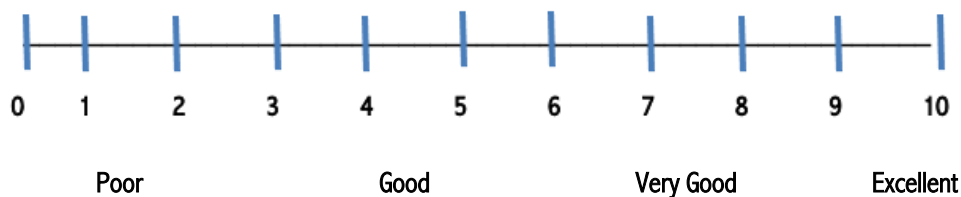
A rating scale is a measuring instrument employed to assess the performance of tasks, skill levels, procedures, processes, qualities, quantities, or end products, such as reports, drawings, and computer programs (British Columbia Institute of Technology, 2010). Rating scales are comparable to checklists. Rating scales are different from checklists in that they indicate the degree of accomplishment. The rating scale is also used to measure attitudes towards others. It gives a numerical value to some kind of judgment. It requires an individual rating another person's behavior or attitude towards an object/situation. The students are giving scale to assess the way they see their classroom interaction with regards to how the teacher acted or failed to act.

The rating scale consists of two parts. They are stimulus variable and response options. The stimulus variable consists of behaviors or qualities to be rated. There are two types of response formats in rating scales: numerical and graphical. The answer options on the scale of the graphic rating scale could be 1-3, 1-5, etc. An example of a general graphic rating scale is the Likert scale. Respondents can choose a specific option on a line or scale to represent their rating. For example: Numerical rating scale has numbers as answer options and not each number relates to an attribute or meaning. For example:

Example 1

Direction: Indicate to what extent teacher perform during the classroom interaction with the students by making his/her behavior under appropriate response.						
Key: The number represents the value as follows: 4 = Always, 3 = Often, 2 = Rarely, 1 = Not at All,						
S/N	CRITERIA	RESPONSES				REMARKS
		4	3	2	1	

Example 2



Key: 0 – 2 = Poor, 3 – 5 = Good, 6 – 8 = Very Good, 9 – 10 = Excellence

1.8. Assessing classroom strategies effectiveness for quality teaching and learning

Assessing classroom strategies effectiveness by various educational stakeholders such as school heads, teachers and students is a veritable exercise meant to help monitor classroom activities for quality education provision. It is also designed to assist teachers to discover the strengths and weaknesses of the classroom interaction being used for continuous improvement of learning attainment (Clipa, 2011). Assessment of teachers' effectiveness assist them to understand and adopt varying teaching strategies as well appropriate measures for discipline for engendering learning objectives accomplishment, students' needs and to foster improved students' behavior and learning outcomes.

A well-designed assessment programme enables educators to obtain information on teaching, encourage self-reflection and engender discussions between teachers and administrators about effective teaching skills (Taylor & Tyler, 2012). Also, it helps principals to identify effective teachers who are organised with positive personal relationships that could promote students' responsibility to engender teacher's classroom interaction quality (Grant, Stronge, & Ward, 2011). Furthermore, assessing teachers' classroom strategies helps principals to keep watch on classroom interaction strategies and maintenance of students discipline as well as improve students' performance. Thus, assessment of classroom interaction strategies promotes teachers' professional development, students' discipline and the resultant learning achievement as well as build good school culture and realization of national educational objectives.

2. Conclusion

Assessment of the teaching and learning process is essential for the actualization of a nation's educational objectives. The common trend in our education system is the assessment of students' learning outcomes at the expense of the assessment of classroom interaction strategies employed by the teacher as their classroom management prowess which engenders students' discipline. These exemptions from the assessment are fundamental to the realization of learning outcomes. Teaching strategies can be categorized into three main variants: teacher-centered instructional strategy, student-centered instructional strategy and teacher-student interactive instructional strategy. The most beneficial instructional strategy among these three strategies is the teacher-student interactive instructional strategy. Assessment strategies that teachers could employ to determine the effectiveness of their classroom strategies include: conducting a regular assessment with feedback, soliciting students' views, using assessment portfolios, peer-assessment and audio-visual assessment. Headteachers could employ interview techniques, personal direct observation, teacher-peer-assessment, students' rating and audio-visual assessment to assess classroom interaction strategies.

Conclusively, therefore, it is evident that the assessment of teacher's instructional strategies is as important as the assessment of students' learning outcomes. The potency of classroom interaction makes it imperative for teachers and school heads to acquire adequate knowledge, skills, and abilities to effectively assess various instructional strategies. They also need to understand the principles guiding the use of each instructional strategies as well as comprehend their advantages and disadvantages, while be being able to use the different forms of assessment techniques and be positioned to profitably use feedback remediate any poor choice of teachers' classroom interaction strategies. These imply that all hands must be on deck to ensure that teachers regularly improve their performance through immediate feedback from stakeholders' assessment of their classroom instructional strategies which will in turn promote teachers' development and improve students' learning.

Disclosure of Conflict

The authors declare that they have no conflicts of interest.

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