

UNDERSTANDING CLASSROOM DYNAMICS: A CRITICAL FACTOR IN TEACHING

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Abstract

The paper is an exposition on what classroom dynamics are their importance, challenges in the Nigerian school setting, strategies for teaching the nature of science and process of science, artifice during students' investigations and ensconce ways to establish good classroom dynamics towards academic excellence. One of the most important aspects of teaching is classroom management. A teacher cannot successfully teach his students if the class is not under control. Nothing can undermine a classroom climate that is conducive to learning. Disruptive behaviors steal instructional time hence it is necessary for the teacher to set a proper tone by providing a list of standards. Teacher classroom decision making has frequently been conceptualized as a stage-wise, problem-solving task, involving the evaluation of alternative courses of action. The decision a teacher makes in the course of teaching can make or mar learning. Getting students ready to learn, creating interest by showing the value of the subject matter, and providing continuous mental challenge, is the instructor's responsibility. If students have a strong purpose, a clear objective, and definite reason for learning they make more progress. The classrooms a potential gold mine for the discovery of a diverse mix of different personalities, interest, insight and contributors It is therefore pertinent to understand classroom dynamics for cohesiveness and effectiveness.

Classroom dynamics involves the interaction between students and teachers in a classroom community (Brian, 2015). The purpose of studying classroom dynamics is for teachers to learn how to set up a positive classroom atmosphere where students feel comfortable learning and communicating with other students and the teacher. Good

classroom dynamics entails the engagement of everybody in the classroom. It is a positive cohesiveness and performance (Gore-Lloyd, 2014).

Good classroom dynamics involves interaction and hands-on practice. It fosters positive and constructive learning environment. It means that there should be more students-centered interaction in the classroom. It requires a shared sense of purpose, trust, empathy and confidence within the learner group and the teacher. It entails consideration of the teacher and student roles in a lesson. A group dynamics denotes consideration of students' expectations and individual differences, it demands real communication that is meaningful and relevant to students, it rivets maximizing learning outcome in diverse classroom setting. Classroom dynamics encompasses discipline, participation of students in the classroom, decision making of the teacher, learning readiness, laboratory activities, evaluation, and referral skills.

Classroom Discipline

Managing students conduct can seem scary, especially to newer teachers, however, it is one of the main tasks teachers have to do in order to maintain an academic environment. A teacher cannot teach effectively if the students are not under ascendancy.

Positive Discipline Techniques

Positive discipline focuses on teaching students how to learn from their mistakes, and this leads to behavior modification. Boundary-based discipline techniques should be set by the teacher to increase positive behavior. Classroom discipline needs adjustment, cooperation and students must get involved in dealing with other students. The teacher will have to set rules that students must comply with, but rules must be cooperative, in doing this students must be involved in creating and implementing rules inside and outside the classroom.

Decision making in the classroom

Being a teacher affords a good amount of autonomy within the classroom, with such autonomy comes decision making. The teacher continually faces decisions such as, how to manage students, what material to present to augment the prescribed curricula and how to set priorities. The pertinent point is that the teacher needs to constantly make decisions that affect students' performance as well as the classroom environment. Therefore teachers face the task of becoming skilled decision makers. There are different matrixes to use in decision making process. The ability of the teacher to take the most appropriate decision according to Nordin (2012) rests on four general attributes of the decision making process (1) Teachers have limited cognitive ability hence they should improve on their knowledge of the teaching profession (2) There is limited amount of time at the teachers' disposal to make decisions hence it is worth making time for decision making. (3) Teachers suffer from lack of information, it is therefore crucial

to raise the level of awareness in a particular area through conferences, seminars, and workshops (4) Teachers have their explicit and latent biases based on experience and perception, decisions should be addressed in a holistic manner. Ultimately the decisions teachers make have both short-term and long-term consequences hence thorough analysis should be done before decision making.

Learning Readiness

Readiness is the state of being fully prepared to do something. It is the willingness to do something. Learning readiness refers to how likely a person is to seek out knowledge and participate in behavior change (Zuffallige, n.d.). Readiness implies a degree of single mindedness and eagerness. Individuals learn best when they are physically, mentally and emotionally ready, and they do not learn well if they see no reason for learning. Getting students ready to learn, creating interest by showing the value of the subject matter, and providing continuous mental or physical challenge, is usually the instructor's responsibility. If students have a strong purpose, a clear objective and a definite reason for learning, they make more progress (Dipali, 2010).

Participation

Classroom participation is an important aspect of student learning when students speak up in class, they learn to express their ideas in a way that others can understand, when they ask questions, they learn how to obtain information to enhance their own understanding of a topic, class participation also is a valuable learning tool for teachers (Ken, 2015). Through students' questions teachers are informed about what students do not understand, and can adjust instructions accordingly. As a teacher you will have greater success spurring reluctant students to speak up, whatever the reasons for students' pertinence. The role of the teacher is not to force students to speak up, doing so will likely make them to clamp up rather than open up. The role of the teacher is to be supportive, encouraging and help students feel at ease, more confident, and less fearful to speak up. The teacher can do this by:

1. Asking students questions they can answer confidently.
2. Reinforce responses with positive statements.
3. Lead students towards right answers.
4. Be patient when waiting for right responses.
5. Monitor class participation.
6. Provide opportunities for students to practice their communication skills
7. Give students responsibilities that require communication.
8. Observe students for evidence of a speech or language problem

Laboratory activities

Laboratory teaching assumes that first-hand experience in observation and manipulation of the materials of science is superior to other methods of developing

understanding and appreciation. Laboratory training is also frequently used to develop skills necessary for more advanced study or research. Shulman and Tamir (as cited in Blosser, 1990) identified five groups of objectives that may be achieved, through use of laboratory in science classes:

1. Skills: Manipulative, inquiry, investigative, organizational, and communicative.
2. Concepts: For example, hypothesizing, theorizing, practical model, and taxonomy.
3. Cognitive Abilities: Critical thinking, problem solving, application, analysis, and synthesis
4. Understanding the nature of science: Scientific enterprise, existence of multiplicity of scientific methods, interrelationships between science and technology and among various disciplines of science.
5. Attitudes: For example, curiosity, interest, objectivity, precision, confidence, perseverance, satisfaction, responsibility, consensus, collaboration and linking science to other fields of study.

Challenges in laboratory concepts

The use of the laboratory method of teaching science has become a dogma among science educators and teachers. They extol the importance of the use of the laboratory method in science teaching while on the other hand they only pay “lip service” to its use (Abinbola, 1994). In practice science teachers do not usually find it convenient to make laboratory work the center of their instruction. They usually complain of lack of materials and equipment to carry out practical work. At the same time, it is possible that some of these materials and equipment may be locked up in the school laboratory store without teachers being aware of their existence. The conditions under which many teachers function do not engender any enthusiasm to use the laboratory method of teaching science even when they know that these materials equipment are available. Class size in urban schools is getting larger and this does not usually encourage teachers to use laboratory method of teaching science. In some states in Nigeria teachers go for months without salary, science teachers who fall in this category cannot reasonably be expected to give of their best to their students (Abinbola, 1994).

Evaluation

Assessing learning can profoundly shape the educational experiences of students. One of the challenges of effective assessment is to ensure that there is a close alignment between the learning goals, the teaching and learning activities, classroom assessment and grading practices have the potential not only to measure and report learning but also to promote it, indeed research has documented the benefits of regular use of diagnostic and formative test as feedback for learning (Black, Harrison, Lee Marshat, and William, 2004). The summative assessments clarify the targeted standards

and benchmarks for teachers and learners. The performance tasks yield evidence that reveals understanding. Presenting authentic performance tasks at the beginning of a new unit or course provides a meaningful learning goal for students. Assessment becomes responsive when students are given appropriate options for demonstrating knowledge skills and understanding.

Common Issues of Concern About Assessment Are;

1. Lack of perceived relevance, lack of clear objectives.
2. Inability to assess process and product.
3. Concerns may arise when teachers provide students with multiple opportunities to demonstrate their learning. Students may not take the first attempt seriously, once they realize they will have a second chance. In addition, teachers often become overwhelmed by the logistical challenges of providing multiple opportunities.

Grading Practices that Can Enhance Teaching and Learning;

1. Use summative assessment to frame meaningful learning goals.
2. Show criteria and models in advance
3. Assess before teaching
4. Offer appropriate choice response options
5. Provide feedback early and often
6. Encourage self-assessment and goal setting.
7. Allow new evidence of achievement to replace old evidence.

Referral Services

Teachers are not trained psychologists, psychiatrists, social workers, health care personnel or counselors. The teacher should remember not to exceed his/her role as a tutor. Teachers are not expected to solve all problems for their students. Ways to recognize when a student needs referral services include the following:

1. If a student is using tutoring time inappropriately, that is using tutoring time to socialize or to discuss personal issues and repeatedly coming to tutoring unprepared.
2. If the student is very tense, shy, nonverbal, uncommunicative.
3. If the student's behavior changes dramatically from earlier tutoring sessions.
4. If the student fails to do assignments
5. If the student regularly exhibits any of the following behaviors:
 - a) Depression
 - b) Anxiety
 - c) Signs of substance abuse

Challenges of classroom dynamics

According to Mohammad (2011) and Derrick (2015) some of the challenges to good classroom dynamics are:

1. Inability of the teacher to refer to students' prerequisite knowledge.
2. Low level of academic achievement of students.
3. Inadequate quantity of educational materials presented to students.
4. Lack of preparation of the teacher and the student prior to the class. This expresses lack of readiness.
5. Lack of attention during the explanation.
6. Weakness and capacity of students to express themselves.
7. Failures of students to do homework.
8. Learning difficulties among some of the students.
9. Lack of appropriate subject levels of students.
10. Lack of excitement in educational activities.
11. Indiscipline in some students.
12. Teacher's failure to evaluate assignments.
13. Teacher's failure to create an atmosphere of participation.
14. Poor questioning technique.
15. Lack of laboratories or ill equipped ones.
16. No referral skills.
17. The sensation of the teacher is fixed and stationary on the classroom activities.
18. Non adoption of innovative teaching strategies.
19. Overcrowded classroom with students.
20. Tough superior behavior of the teacher.
21. Sleep deprived and lethargic students.
22. Absence of information communication technology gadgets.
23. Inadequate time allocation to lessons.
24. Declaration of conflicting interest of students.
25. Dealing with controversial topics.
26. Knowledge contrasting understanding
27. Time consuming planning requirement
28. In class time constrains
29. Cost limitations
30. Facilities limitation
31. Lack of Prerequisite knowledge
32. Lack of connections of concepts to real life situations

System Tactics for Teaching the Nature and Process of Science

The teacher should:

1. Be explicit about how the classroom activities and content relate to the nature and process of science
2. Model the behaviors, and scientific language that he/she wants from the students.
3. Incorporate the nature and process of science throughout the academic year. Re-emphasize the same ideas in multiple context so that students can see the general applicability of scientific ideas.
4. Use activities in which students apply/ develop scientific process themselves.
5. Incorporate popular account of scientific discoveries that emphasizes the nature and process of science.
6. Be conscious of common misconceptions about the nature and process of science and address it.
7. Apply the science checklist to different situations
8. Apply the science flowchart to different situations.
9. Make reference to current research and breakthrough.
10. Use assessment to monitor students understanding of the nature and process of science
11. Use audio-visuals in the teaching of science

Artifice during students' scientific investigation

1. Avoid overemphasizing the term experiment. Many scientific tests do not take the form of experiments.
2. De-emphasize the idea of the right" answer and allow students to figure out ambiguity in laboratory activities.
3. Instead of using cookbook labs, incorporate students-designed investigations with available laboratory equipment.
4. Have students present their evidence and interpretation to each other and come to a consensus about the outcome of laboratory, class or field activities.
5. Have students write up laboratory results in the form of a scientific paper.

Creating a dynamic classroom

The following are ways of establishing a dynamic classroom.

1. Flipped Classroom Discipline (Inverting your class)

The flipped classroom model basically involves encouraging students to prepare for the lesson before class. Thus the class becomes a dynamic environment in which students elaborate on what they have studied. The teacher gives the students a topic to read ahead so that the following day can be devoted to answering questions. This allows students to go beyond their normal boundaries and explore their natural curiosity.

2. Classroom Discipline Plan

Many teachers make the mistake of starting the academic session with poor discipline plan. Students quickly assess the situation in each class and realize what they will be allowed to get away with. Once the teacher sets a precedent of allowing a lot of disruptions, it could be difficult to establish a good classroom atmosphere (Kelly, 2015)

3. Fairness

Students have a distinct sense of what is and what is not fair. The teacher must act fairly for all students. If the teacher does not treat all students equitably they will not be keen to follow the rules set by the teacher.

4. Direct Instruction

Uncertainty decreases the level of excitement in the classroom. The technique of direct instruction is to begin each class by telling the students exactly what you and the students will be doing during the period.

5. Adoption of Student Centered Learning Pedagogy

Student-centered learning is all about placing the students at the center of the teaching process. It makes students active and responsive hence contributors to the process of learning

6. Design Thinking (Case method)

This technique is based on resolving real – life cases through group analysis and brainstorming. The case method prepares students for the real world and arouses their curiosity, analytic skills and creativity

7. Technologies

The teacher should take advantage of the new technologies to incorporate simulations, and audio-visual materials in his class.

8. Organization and Mechanics

The teacher should have a clear organization: Introduction, procedure, materials, contingency plan, proper grammar, punctuation, accurate word choice, correct spelling of words and evaluation. This makes the class vibrant.

9. Picture Word

This entails replacing key vocabulary words of a text with pictures and then adding the words back in.

10. Ecological Approach

Involves all aspect of the students' life, including classroom, family, neighborhood, and community, in teaching educational skills.

11. Daily re-looping of Previously Learned Material:

A process of always bringing in previously learned materials to build on each day so that students can have a base knowledge to start with, for the reinforcement of learned structures.

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