Poonam Shodh Rachna (ISSN 2456-5563)
(A Multidisciplinary, Peer Reviewed and Refereed Journal)
Vol.3, Issue.VII, July 2024, Pc : PSR-2407010

"Identification Of Challenges In Teaching- Learning Process"

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Abstract:

Teaching learning process is vital component in classroom education system. What is teaching? The answer is giving instructions. What is learning? The answer is change in behavior of student. A student learns something new in the classroom. All the students are not at same understanding level. Therefore, the teacher has to know the place of the learner or required previous knowledge so that learner is mentally ready for next level of learning during instruction provided on that particular day. The whole aim behind this research is to understand the actual fracture in the learning process. In the various techniques of evaluation, the teacher has to find out specific difficulties of the students in achieving concept of the topic The many challenges in education are before the teacher and the students. The classroom management is one of the major skills that usually a teacher finds challenging. New educational technology, social environment issues also play big role in teaching learning process. The quality education is important for New Education Policy. The financial and academic stress also affects learner's success. The researcher has tried to find measures on how to tackle all these hurdles on the way of teaching learning process. The teacher has to carry out exercise to find out actual weaknesses in understanding a unit. The methods used will be to carry out various techniques of evaluation and types of evaluation. The very first step is to administer achievement test to know who are weak in the subject. The diagnostic evaluation finds out exact weaknesses of learner. The remedial measures are suggested based on actual weaknesses in learning. The achievement test and diagnostic test result out in understanding exactly what was wrong in the attainment of the learning objective. Hence, in order to identify difficulties in teaching learning process, diagnostic evaluation followed by remedial measures help in smooth running of classroom teaching.

Key words: challenges, teaching learning process, diagnostic evaluation

Introduction

The teaching profession is one of the difficult works as one has to deal with learners with different needs and capabilities. The education itself stands on different psychological and philosophical foundations. The educational system consists of the teacher, learner, curriculum, techniques of evaluation, teacher education, educational researchers, school management, examinations, grading and reporting, remediations. The whole objectives of teaching dependon;

a) The need and capabilities of the learner.
b) Specific demand of the society.
c) The nature of the subject matter.

The teacher has to set out instructional objectives.The entering behaviour depends on objectives. The behavioural changes require provision of learning experiences through different teaching methods The

evaluation of whatever has been taught is the end view of the teaching process. What is evaluation? Arithmetically evaluation = measurement + value judgment.

The Identification of challenges those teacher and learner faces in teaching learning process is a tedious job. The different types of evaluation and techniques of evaluation helps to find out exact difficulties of the learner in achieving desire goals or objectives of teaching. When an achievement test is administered to a learner, this testing toolsometimes do not work out as it may be a poor testing. The test items dependon :

1) Class of the students
2) Subject matter
3) Content selected or unit
4) Forms of questions
5) Specifications
6) Objectives
7) Weightage to the content
8) Time allotted to answer the question
9) Estimated difficulty level of the question

The achievement test is one of the toolsto evaluate the learner, which helps to know whether objective set out is achieved or not. The attainment level of the learner is also verified. This test helps to know the degree upto which the learner has reached out to goals. Those who have not reached the desired goals are identified as the poor achievers or weak learner. The next task is to know what exactly is wrong in them. The identification of exact difficult days or weaknesses is therefore required and hence diagnostic evaluation is immersed. Hence, in this whole process, diagnosis and remediation is important aspect to identify the causes of poor performances of the learner. The diagnosis and remediation are interdependent the. Teacher has to give remedial exercise to the learner based on the needs of the learner.

1.1 Objectives

i. To identify the weak students in the classroom
ii. To identify specific weaknesses of students in the classroom
iii. To construct a diagnostic test in a scientific manner
iv. To analyse test items and difficulty level of test items. Plan for remedial teaching.

1.2 Statement of Problem

The researcher aims to find out challenges and exact weaknesses in teaching learning process.

1.3 Research Methodology

The researcher has constructed own diagnostic test based on the own knowledge.

1) Review of literature

Perceptions on biology classroom teaching-learning activities were investigated by Mapulanga and Bwalya (2024). We used paper-based Likert-scale questionnaires to gather data from eight individuals who were recruited from secondary schools in Zambia. The data was analyzed by calculating frequencies and doing chi-square tests using SPSS, which is a statistical tool for the social sciences. The research suggests looking at data from real classroom observations to see why the participants thought the way they did. A number of participants' unfavorable impressions of "making biology teaching learning easy" and "assessment strategies and other teaching learning activities" became apparent in this research. Additionally, the research suggests that educators be encouraged to use teaching-learning activities that fall under the headings of "making biology teaching-learning easy" and "assessment strategies." The researchers wanted to know how the participants felt about the biology lessons at a certain moment in time, therefore they used a cross-sectional survey approach. This research used two instruments: a teacher survey and a student survey.

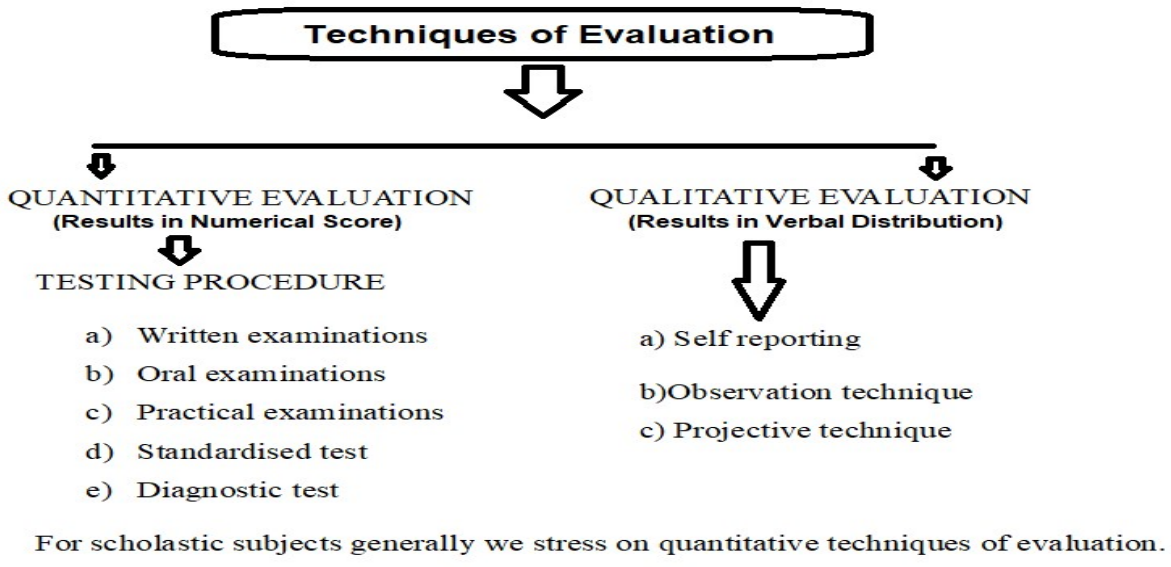
The teacher survey was based on a five-point Likert-scale questionnaire, while the student survey was based on a survey developed by Mapulanga et al. (2023a). The questionnaires included in this research had 26 identical questions that were correlated with six types of biology class activities. This research adds to our understanding of the role of teaching-learning activities in biology education by contrasting the perspectives of biology instructors and their students on these strategies. The results showed that both the instructors and the students had diverse impressions of the learning activities that took place in biology classes. There was a stronger favorable bias among teachers' views of the teaching-learning activities used in biology classes compared to students' views. Nearly two-thirds of the teaching and learning tasks had statistically significant differences.

Additionally, Golzar et al. (2022) found that both instructors and students had the same impressions of diagnostic tests that were administered in class and were participatory.

PRABHA (2020) uses a sample of 920 students from 23 schools across 5 states in India to examine the challenges that students face while trying to grasp the big picture of scientific concepts in the ninth and tenth grades. The research included a questionnaire and field notes as its instruments. Through a semi-structured focus group interview with 222 students, we aimed to get their perspectives and ideas for overcoming their challenges. Seventy-0.22% of students report having trouble grasping some scientific topics, according to the study's main results.Forty percent of ninth graders and almost half of tenth graders are afraid to speak out in class for fear of making fun of their classmates. An important aspect of the teaching-learning process, according to the researcher, is paying attention to students' learning requirements and styles. Students' learning experiences may be enhanced by actively listening to what they have to say, as shown by Mitra (2003). According to Walker (2008), there are several advantages for students who take charge of their own education. They will feel more invested in their education, which will lead to higher levels of motivation, self-esteem, success, positive connections with teachers and classmates, and a general feeling of empowerment. On the other hand, students are more likely to become disengaged and disappointed in their educational experiences if they are not actively involved in the process of learning.

Diagnosis is essential in teaching learning process

Now, prior to diagnostic evaluation, other forms of evaluations are to be conducted. They are placement evaluation, summative evaluation and formative evaluation. Achievement test is one of the tools in these types of evaluation. Quantitative technique is based on these tools and forms of evaluation.



For scholastic subjects generally we stress on quantitative techniques of evaluation.

Steps of evaluation

1) Determine and verify what is to be evaluated.
2) Select the suitable tool for measuring the learning outcome.
3) Measure the learning outcome using already selected tool.
4) Compare the results of measurement with expected learning outcome.
5) Pass the value judgement on the basis of comparison of actual outcome with expected learning outcome.

In a classroom teaching prior to actual instructions Begin it is essential to know the attainment level of the learner. Weather a learner is ready with previous concepts required for instructions. Classroom instruction is when you may expect to get those. Verifying this requires identifying the student's role in the educational process. Using the results of the placement test, we can determine:

a) If the student is in a receptive learning state;
b) Where to begin providing instruction;
c) If the necessary prerequisites have been met; and
d) How well the students have grasped the goal of the blended learning lesson.

The first stage in identifying learning difficulties is to identify the areas in which a student is struggling within a certain class. The achievement test is a prerequisite of diagnostic evaluation, quality achievement test is equally necessary for further diagnostic evaluation. For construction of quality test good questions are necessary. A good question is following characteristics;

a) It should be objective based.
b) It should specify a particular task through instruction.
c) It should assess the same area of the content.
d) It is framed in a clear, precise and or ambiguous language.
e) It should be framed keeping in mind level of the students.
f) It discriminates at higher and lower achievers.
g) Marks allotted should be appropriate.

When actual classroom teaching is going on, it is important to know whether goal of teaching is being achieved during the teaching learning process. Therefore, spontaneous evaluation should be done what is called as formative evaluation. Formative evaluation Always entertain how much is formed in the learner after planned instruction. Whether learning is going on is per plane. Feedback to the teacher and learner helps to modify instructional methods. Only one test items objective in nature. It is spontaneous and used in classroom. It has narrow scope. Having an unscheduled formative exam. The process of teaching and learning makes use of it. Tools for formative assessment, such as oral exams and return tests, might be administered at the conclusion of each lesson. In addition, the questions are brief, objective, and cover all the instructional points. One instrument for summative assessment is the achievement exam. The data for the student's weaker sections is produced from this teacher-made exam, hence it is often administered before diagnostic tests. By the conclusion of each semester, term, or course, the learner's progress is summarized in the summative assessment. It occurs at regular intervals, perhaps weekly, monthly, or once a year. This section assesses the student's preparedness for the following lesson. The final status is checked. It covers a lot of ground. The next step, after recognizing problems with the teaching and learning process, is to find adjacent cracks in the process, as this will provide us a list of students who are struggling or have already failed to reach their learning objectives. To go forward with the diagnosis, diagnostic assessment is the method that must be used.

2) Steps in Diagnostic evaluation

i. Arrange the answer paper in descending order of the score in the achievement test. There will be results This will result out in finding lower achievers. The lower group below passing percentage will be priority based. We can achieve separate these groups from higher scorer and middle group. Now our target group for diagnosis is identified Unit wise analysis is next step in the diagnosis. Note down questions onevery unit of topic that was tested.

ii. Unit wise analysis is next step in the diagnosis. Note down questions on every unit of topic that was tested.

TABLE NO 1:Questions on each unit of topic being tested

Questions	U1	U2	U3
Q1			
Q2			
Q3			

Source: Author's compilation

iii. Unit wise score of the student.
Say unit 1 for example, list down all the questions in the unit 1.

TABLE NO 2:Questions on unit 1

Students	Q1	Q2	Q3	Q4	Q5
S_1					
S_2					
S3					
S4					
S5					
S6					

Source: Author's compilation

iv. Question wise analysis
For each question in unit 1, write down mistakes/ errors made by every learner.
Unit 1

TABLE NO 3: Errors made by every learner

Students	Actual mistakes / errors made by the students
S_1	
S_2	
S_3	
S_4	

Source: Author's compilation

Similarly, we have to write down for all questions in unit 1. Repeat this process for unit 2. Unit 3 and so on. This process will help to find what was wrong in the answers of all failures in all the units for the examination.

v. Writing of all teaching learning points of unit 1.

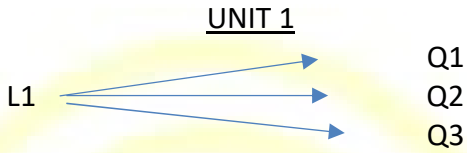
TABLE NO 4: TEACHING LEARNING POINTS OF UNIT

L_1	
L_2	
L_3	
L_4	
L_5	

Source: Author's compilation

Repeat this process for all the units.
U2, U3, U4……

vi. Forming odd number of questions on each learning points. (minimum three)



Questions should be objective or very short. All the three questions should be different types, say, answer in 1 sentence. Fill in the blanks calling. For same answer. No teaching learning point should be dropped from the unit so that mastery on the unit thought is confirmed.

vii. Scoring the test item.
Like achievement test, there is no numerical score or weightage is assigned. Only two options either right or wrong. (✓ OR×).

TABLE NO 5:Student item chart (unit one)

		L1			L2			L3	
Student	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
S1	✓	✓	✓	✓	×	✓	✓	×	×
S2	×	✓	✓	✓	✓	✓	×	×	✓
S3	×	×	✓	✓	✓	✓	×	×	×
S4	✓	✓	✓	×	×	✓	✓	✓	×

Source: Author's compilation

Analysis
Student 1
Learning point 1
He has answered all the three questions correctly. It means he has learnt L_1 100%.
Learning point 2
S_1 has answered correctly two questions out of three i.e. 2/3×100 = 66.66%
So, S_1 has learnt only 66.66%, it means he has not understood L_2 fully. He needs remediation here.
Learning point 3
S_1 has answered only one question correctly out of three questions. So 1/3×100% = 33.33%. S_1 has not learnt L_3.
Likewise similar procedure should be done for S2, S3, S4……

viii. CONCEPT (C_1)
UNIT 1

CONCEPT 1

TABLE NO 6: ACHIEVEMENT OF CONCEPT BY STUDENT

				UNIT1				
				C1				
	L1	L2		L3	L4	L5	L6	
Q1	Q2 Q3		Q1	Q2 Q3			Q1 Q2	Q3

Source: Author's compilation

S1 has not learned L2 and L-3. It means he has not achieved C1 and hence not learned unit 1 fully Similarly, same procedure is to be done for unit 2 unit 3 and so on.So, using diagnostic evaluation, we have identified where exactly student has made mistake.

TABLE MO 7:STUDENT ERROR CHART

STUDENT	ERROR
S1	L2, L3
S2	L1, L3
S3	L1, L3
S4	L2, L3

Source: Author's compilation

So, a remedial teaching is required in C 1 for S1, S2, S3, S4 in corresponding learning points, shown instudent error chart.

3) Conclusion and Recommendation

- Diagnostic test is recommended for question analysis for improvement of achievement test. It is also recommended for preparation of improved test items for standardized test. It is recommended for use of alternate teaching methods so that improved learning outcome is obtained. Diagnosis allows appropriate access to educational goals through selection of evaluation. Tools and techniques. Diagnostic analysis used as a base for research work for factors causing hurdles in teaching learning process.
- In order to identify difficulties faced by the learner in the teaching learning process it is recommended to administer diagnostic evaluation.
- Based on the item analysis the teacher has to plan for the questions based on difficulty level.

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