



# **Perceived Influence of Classroom Interactions on Students Academic Performance in Senior Secondary Schools in Rivers State**

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## **ABSTRACT**

The study centred on perceived influence of classroom interactions on students' academic performance in secondary schools in Rivers State. Consequently, three research questions and three hypotheses were drawn for the study. The research design adopted in this study was a descriptive survey. The population of the study consisted of 2634 (teachers) and 15,339 (students) giving the total population as 17,973 selected from 56 public senior secondary schools in three local government areas of Rivers State. Content and face validity was determined by the expert judgment of the researcher's supervisor and other experts in the faculty of education. Scores were analyzed using the Cronbach Alpha which yielded the result of 0.81. The entire copies were retrieved and used for the study. Mean and standard deviations also were used to answer the research questions while z-test was used to test the hypothesis. The instrument for this study was questionnaire titled; Classroom Interactions and Student's Academic Performance Questionnaire (CISAPQ). Thus, 757 copies of questionnaire were administered and retrieved 538 (71%) copies. A decision was taken based on acceptable means 2.5 and any mean below were rejected. Hypotheses were analyzed using z-test. Findings of the study indicated that classroom interaction influence students' academic performance in respect of motivating students' aspirations towards solving academic problems. Appropriate communication skills should be utilized for proper classroom interactions among the teachers and the students. The teachers should adequately examine the nature of lesson objectives to determine how the students can be actually involved in discussion on the technical aspects of the subject matter. Teachers need to identify the practical activities that will involve in learning a particular lesson to admit demonstration method.

**Keywords:** Academic Performance, Classroom Interactions, Students, Schools, Rivers State

## **INTRODUCTION**

It is widely accepted that education is one of the leading tools for promoting growth and development of individuals and the society. Through education, individuals acquire knowledge, skills and attitude that are necessary for effective living. However, to facilitate the process of knowledge sharing, teachers and students must communicate appropriately in the classroom using interactive techniques that best suit specific objectives and expected academic outcomes (Chrisantus, 2019).

For Sita (2010) classroom interaction is everyday activities between the teacher and the learners. Interaction commonly defines as a kind of action that occurs as two or more objects has an effect upon one another. The idea of a two-way effect is essential in the concept of interaction, as opposed to a one-way causal effect. Education with its correlated activities of teaching and learning process involves interaction between teacher and students as channels of realizing its objectives. Interaction occurs every day in teaching and learning process thus it is managed by everyone, not only by the teacher in the

classroom, but also the students. This therefore implies that interaction is usually used to express their ideas all together.

The teacher in teaching and learning process focuses on the best method, looking for the most appropriate approach, design of materials, or set of procedures in a particular case. In this case, the teacher is being flexible, while keeping interaction central in respects of interaction between teacher and learners, learners and teacher, learner and learner, learner and authors of texts, learner and the community that speaks the language. Thus, the situation required that the teachers have to be direct and non-dominated in the classroom because Interaction cannot be one-way, but two-way, three-way or four-way.

According to Siddiqui (2005) interaction between students and teachers is an essential part of teaching learning process. It promotes involvement, enhances learning and motivates the students. It promotes a shift from teacher centered to a student centered environment while maintaining a teacher led activity. There has been a paradigm shift in modern times to promote classroom instructiveness. In this context, a learning strategy that promotes interaction between the instructor and the learners, as well as among learners, is sought and seen as the pivotal to improving pupils' communicative skills in the classroom and at length impact on their academic performance. In related instance to the above notion, Koli(2010) portrays classroom interactions as one of the basic facilitators of improved students' academic performance. In an effort to bring home the benefits of classroom interaction, Oyinloye (2008) argues that if teachers provide learners with enough interactive opportunities, then students' academic performance is bound to be magnified.

Finally, classroom interaction refers to the interaction between the teacher and learners, and amongst the learners, in the classroom. It helps learners develop language learning and social skills and so maximizing interaction in the classroom is an important part of the teacher's role. Interaction will not necessarily happen spontaneously, however, and in my view it has to be considered before teaching in respect of student interaction, teacher-students interaction, student- teacher interaction, student-student's interaction.

#### **Statement of the Problem**

Interaction between students and teachers is an essential part of teaching learning process. It promotes involvement, enhances learning and motivates the students. It promotes a shift from teacher centered to a student centered environment while maintaining a teacher led activity. Classroom interaction aims at meaningful communication among the students in their target language. This practice helps a teacher to assist students with their questions and doubts, develops language learning and social skills hence maximizing interaction in the classroom. Effective and efficiency of classroom interaction depends on the capacity of the teachers whose bodies of knowledge and skills already acquired have to be displayed during teaching and learning activities.

However, based on the technicalities involve in teaching, some of the teachers lack the relevant knowledge and skills in using necessary strategies such as: communication skills, discussion, inquiry, demonstration methods for effective classroom interaction in spite of their respective training modes. Teachers' inability to effectively initial these classroom interaction strategies therefore has resulted to in adequate students' academic performance which is the tenet of this study. This observation, therefore, informed the researcher to investigate perceived influence of classroom interactions on students' academic performance in secondary schools in Rivers State.

#### **Purpose of the Study**

The purpose of the study was to investigate perceived influence of classroom interactions on students' academic performance in secondary schools in Rivers State. Specifically, the objectives of the study were to examine were to:

1. Determine how communication skills influence students' academic performance in secondary schools in Rivers State.
2. Identify how discussion method influences students' academic performance in secondary schools in Rivers State.
3. Determine how demonstration method influence students' academic performance in secondary schools in Rivers State

### **Research Questions**

1. How do communication skills influence students' academic performance in secondary schools in Rivers State?
2. How do discussion methods influence students' academic performance in secondary schools in Rivers State?
3. How do demonstration methods influence students' academic performance in secondary schools in Rivers State?

### **Hypotheses**

1. There is no significant difference in the mean responses of teachers and students on how communication skills influence students' academic performance in secondary schools in Rivers State.
2. There is no significant difference in the mean responses of teachers and students on how discussion method influences students' academic performance in secondary schools in Rivers State
3. There is no significant difference in the mean responses of teachers and students on how demonstration method influences students' academic performance in secondary schools in Rivers State

### **Theoretical framework**

The theoretical framework for this research work, will hinge on social learning theory and motivation theory and there are different types of social learning theories and theories of motivation. The social learning theory this study will adopt, is the Interaction Theory (IT), while the motivation theory will be the expectancy theories of motivation which will include; The Lewin's Level of Aspiration Theory, The Atkinson's Achievement Motivation Theory and The Vroom's Expectancy Theory

### **Conceptual Framework**

A study of this nature requires the explanation of some conceptual issues to keep the study on focus. Some of these concepts include;

#### **The Concept of Classroom**

Classroom is a particular place where two or more people gather for the purpose of learning, with one person playing or having the role of teacher. The teacher has certain perceptions about his or her role in the classroom.

Teacher talking have been considered to account for most of classroom discourse (Cazden, 2000). In the classroom, the teachers and its students are seen as members of the contexts in which spoken language has social and pedagogical functions (Consolo, 2000). In the language patterns of classroom communication systems, the role of language extends beyond communication of mere information to the establishment and maintenance of relationships in the classroom (Cazden, 2001). Cazden argues that carefully examining extended texts of teacher and learner discourse can provide an in-depth understanding of the processes of teaching and learning. Which Downey (2008) posited that the importance of teachers' relationships with these students cannot be overstated.

#### **Concept of Interaction**

Interaction is a communication that goes on constantly as responsive or initiatory acts between the teachers and its students. From the above, it shows that students learn through talking, in other words, through verbal interactions. Hamre, Pianta, Burchinal, Field, Crouch, Downer, Howes, LaParo and Little (2012) posited that teachers need to be actively engaged in interactions with their students in order for effective learning to take place. Which Mohrman et al., (2003) asserted that lasting change does not result from plans, blueprints and events; rather the change occurs through interaction of participants.

Lin (1999) investigated the interaction in four classrooms situated in different socio-economic backgrounds in Hong Kong, one with students of a high socio-economic background and three with students from low socio-economic backgrounds. She discovered that the degree of students' participation

was controlled by the script the instructor utilized combined with their socio economic status. In two out of three classrooms where there were pupils from a relatively disadvantaged class, the scrip recitation was more prevalent. Again, the pupils from one of the three classrooms were easily bored and did not show much interest in lessons when their playful response were not fully appreciated nor acted upon by the teacher, who provided only factual questions and simple evaluations such as very nice. The factual nature of the questions and less elaborated evaluations by the teacher also left little room for eighth-grade students who had little opportunity to use their imagination. On the contrary, Nystrand and Gamoran (2016) in their study found a slightly different pattern of interaction in higher track classrooms. In these classrooms the teachers used questions that invited students to contribute something independent and original to the discussion that can change or modify it.

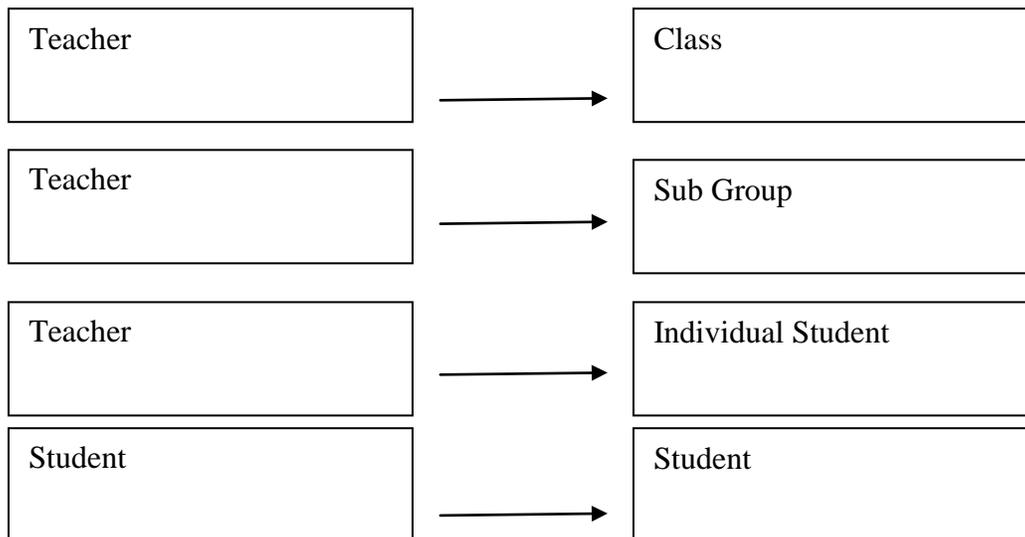
**Classroom Interaction**

Teaching is an interactive act. In the classroom, communications between the teachers and pupils goes on constantly as responsive or initiatory acts. This communication is called “interaction”. Recharad et al., (2014) define classroom interaction in these words: “The patterns of verbal and non-verbal communication and the types of social relationships which occur within classrooms. The study of classroom interaction may be a part of studies of Classroom Discourse, Teacher Talk and Second Language Acquisition”pg 45.

According to Tickoo (2009), what happens in a productive class hour is described under the following heads:

1. The teacher interacts with the whole class.
2. The teacher interacts with a group, a pair or an individual pupil.
3. Pupils interact with each other: in groups, in pairs, as individuals or as a class.
4. Pupils work with materials or aids and attempt the task once again individually, in groups and so on.

The teacher sometimes interacts with the class as a whole while at other times with sub-groups in the classroom. According to Tiwari (2009), teacher should endeavor to introduce variations in the pattern of interactions which he further list diagrammatically below:



*Figure 1: Classroom Interaction Pattern*

Source: From Tiwari, S. R. (2009). Teaching of English, New Delhi, A.P.H. Publishing Corporation, P.294.

The dominant pattern of interaction is that of the teacher’s question, the student’s response and the teacher’s feedback. This is commonly found in all classrooms and is typical of classroom exchange.

Teacher's talk not only takes up the largest portion of talk but also determines the topic of talk and who talks. It is therefore a very important component of classroom interaction. The ways in which students behave and interact during a classroom organized and controlled by the teacher (or sometimes by the learners themselves) to enable teaching to take place most effectively is called classroom management. It also includes procedures for grouping students. For different types of classroom activities, the use of lesson plans, handling of equipment, aids, etc., and the direction and management of students' behavior and activity are helpful. According to Wells (2001), through classroom interaction, knowledge are constructed as well as reconstructed between participants in particular conditions utilizing the cultural resources at their disposal, as they propel towards the collaborative achievement of goals that emerge in the course of their activity. Hall cited in Wells (2001), that the L2 classrooms and learning communities constructed through their classroom practices were reconstructed as learning fundamental sources, arranging both the kind and contents of communicative competence and the individual developmental processes.

**(d) Teacher-Student Relationships**

Strong Teacher – Student Relationships may be one of the most crucial environmental factors in changing a child's path of education. As posit by Downey (2008), the quality of the relationship between a learner or student and the instructor or teacher will result in a higher level of learning in the classroom. According to Stipek (2002), many of the children who are not doing well academically, are the same ones who have a poor relationship with their teachers. Typically, the more they fall behind academically, often, the more this relationship is weakened. If they are constantly reprimanded in class, the environment and the teacher - student relationship begin to hold negative associations. Hamre and Pianta (2006), cite a study by Gregory and Weinstein associated with growth in achievement from 8th to 12th grade. Hamre, et al (2001) contend that strong Student - Teacher relationships, provide a unique entry point for educators working to improve the social and learning environments of schools and classrooms.

According to Sarason (1999), for teachers to maintain or establish a good relationship with their students, Sarason (1999) identified three overarching features for this, and they are;

1. Recognizing and respecting the learner individuality.
2. Teacher sufficient knowledge of the subject matter. This will enable the teacher to determine when the student or learner may have difficulty or problem and be able to intercede to prevent the difficulty or problem from happening.
3. Teacher should constantly search for strategies or ways to engage and stimulates the learner so that the learner will be willing or wanting to learn.

In other to develop or building relationships with students, teachers can fulfill what Sarason contends is the overarching objectives of schooling motivating learners to experience personal and cognitive growth. It is Sarason's position that not having a system in place that assesses how teachers interact with children is a major problem in the field of education, one that will continue to short change future generations of students and teachers.

**Empirical Studies**

Tisome (2009) studied the Impact of Teacher Student Interaction on Student Motivation and Achievement, his major objective was to determine the value and impact of Student-Teacher interactions in relation to students' motivation and achievement. His study provided strong arguments in favor of equipping teachers with the appropriate resources and assistance to appropriately meet the needs of their students beyond academic instruction. From his analyses, the slightly negative relationship between motivation and achievement isolated the issue at hand. The results of this study found that Teacher-Student relationships are crucial to student success. Pearson Correlation analyses proved positive correlations between Teacher-Student interaction and motivation as well as positive Teacher-Student interaction and achievement; and showed a negative relationship between motivation and achievement. The results of his findings also suggested the need for teachers to be provided with appropriate resources and assistance to meet the needs of their students beyond academic instruction. He also suggested providing for the students as well as teachers with measurable and attainable goals to create experiences with and exposure to success.

Kibe (2014) investigated the effects of communication strategies on organizational performance. Descriptive research design was used in this study. 132 questionnaires were distributed employees. The findings of this research showed the importance of both the theoretical level and practical level of communication of

organizational performance. It concluded that for any organizational performance to be effective, an open communication environment should be encouraged. Once members of the organization feel free to share feedback, ideas and even criticism at every level it increases performance. Although this study was conducted in an industry but it is relevant to this study in respect of identifying how effective and fundamental communication can result to expected performance.

**Summary of Literature Review**

The literature reviewed above, gives theoretical framework for this study as the social learning theory and motivation theory and there are different types of social learning theories and theories of motivation. The social learning theory this study will adopt, is the Interaction Theory (IT), the interaction theory were described as theory to questions about social cognition or how one understands other individuals' that focuses on bodily behaviours and environmental contexts rather than on the mental processes, while the motivation theory will be the expectancy theories of motivation which will include; The Lewin's Level of Aspiration Theory, The Atkinson's Achievement Motivation Theory and The Vroom's Expectancy Theory. The reason for this research work adopting these three Expectancy Theories of Motivation is that, they centre on individuals expectancy for and value of achievement, which is the main purpose of this study. On the conceptual framework, some conceptual issues to keep the study on focus include; The concept of classroom, Concept of Interaction, Classroom Interaction, Teacher-Student Relationships, Teacher's Interaction and Students' Academic Performance and Student academic performance. While the empirical review, reviewed works related to classroom interactions relationship and student academic performance.

It is vital to note here that, although many works have been done on classroom interaction and students' academic performance. The researcher's variables only based on discussion, demonstration, instructional facilities but never involve communication skills and inquiry methods. Hence, the researcher has therefore filled these gaps involving communication skills and inquiry methods in this study.

**RESEARCH METHODS**

**Research Design**

The research design adopted in this study is a descriptive survey to examine perceived influence of classroom interactions on students' academic performance in secondary schools in Rivers State. The design was used to determine or identify current situation relating to the study under investigation.

**Research Question 1:** *How do communication skills influence students' academic performance in secondary schools in Rivers State?*

**Table 1: Weighted Responses on Communication Skills and Students Academic Performance**

ITEMS	TEACHERS (N=210)			STUDENTS (N=328)		
	X	STD	RMK	X	STD	RMK
1 Communication skills motivate students' aspirations towards solving academic problems.	3.19	0.76	HE	3.24	0.74	HE
2 Enhances strong cognitive development that activates academic performance of the students.	3.27	0.73	HE	3.30	0.76	HE
3 Level of the students' enthusiasm in the subject will grow hence leading to academic success.	3.13	0.81	HE	3.06	0.91	HE
4 Strengthens the relationship between the teacher and the learners.	3.25	0.78	HE	3.20	0.76	HE
5 Creating an atmosphere of interdependence by probing into learners' intellectual aptitude at the onset.	3.17	0.85	HE	3.27	0.74	HE
<b>TOTAL</b>	<b>3.20</b>	<b>0.79</b>		<b>3.21</b>	<b>0.78</b>	

The data presented in Table 1 showed the responses of teachers with a mean score of 3.19,3.27,3.13, 3.25 and 3.17 while student's responses revealed the mean score of 3.24,3.30,3.06,3.20 and 3.27 respectively. The table

also revealed average grand mean of 3.21 and standard deviation of 0.76 which indicated that the respondents accepted that communication skills influence students' academic performance.

**Research Question 2:** *How does discussion method influence students' academic performance in secondary schools in Rivers State?*

**Table 2: Weighted Responses on Discussion method and Students Academic Performance**

ITEMS	TEACHERS (N=210)			STUDENTS (N=328)		
	X	STD	RMK S	X	STD	RMK
6 Assists learner self-awareness and capacity for self-critique, appreciation of diversity of the subject goals and objectives.	3.09	0.75	HE	3.31	0.76	HE
7 Encourages mutual responses between the lecturer and students.	3.37	0.74	HE	3.17	0.78	HE
8 stimulates active learning and long-term retention of information	3.18	0.67	HE	3.00	0.83	HE
9 Facilitates learning capacity for essential academic performance.	3.11	0.70	HE	3.19	0.76	HE
10 Encourages students to evaluate events, topics for clarity in the bases for their judgments.	2.82	1.15	LE	3.28	0.79	HE
<b>TOTAL</b>	<b>3.11</b>	<b>0.80</b>		<b>3.19</b>	<b>0.78</b>	

The data presented in Table 2 showed the responses of teachers with a mean score of 3.09,3.37,3.18, 3.11 and 2.82 while students responses revealed the mean score of 3.31,3.17,3.00,3.19 and 3.28 respectively. The table also revealed average grand mean of 3.15 and standard deviation of 0.79 which indicated that the respondents accepted that discussion method influence students' academic performance.

**Research question 3:** *How does demonstration method influence students' academic performance in secondary schools in Rivers State?*

**Table 3: Weighted Responses on demonstration method and Students Academic Performance**

ITEMS	TEACHERS (N=210)			STUDENTS (N=328)		
	X	STD	RMK S	X	STD	RMK
11 Saving time and facilitate material economy	3.26	0.73	HE	3.28	0.71	HE
12 Engaging actively in practical strategy for better academic performance	3.25	0.74	HE	3.30	0.73	HE
13 cooperative learning is enhanced for expected students' academic performance	3.08	0.95	HE	2.79	1.01	HE
14 Producing professional development opportunity in teaching and learning activities.	3.26	0.77	HE	3.34	0.77	HE
15 Combining explanation with handling or manipulation of real things, equipment or materials.	3.20	0.80	HE	3.20	0.76	HE
<b>TOTAL</b>	<b>3.21</b>	<b>0.80</b>		<b>3.18</b>	<b>0.79</b>	

The data presented in Table 3 showed the responses of teachers with a mean score of 3.26, 3.25, 3.08, 3.26 and 3.20 while students' responses revealed the mean score of 3.28, 3.30, 2.79, 3.24 and 3.20 respectively. The table also revealed average grand mean of 3.20 and standard deviation of 0.80 which indicated that the respondents accepted that demonstration method influence students' academic performance.

**Test of Hypotheses**

**Ho<sub>1</sub>:** There is no significant difference in mean responses of teachers and students on how communication skills influence students' academic performance.

**Table 4: Test of Hypothesis using Z-test**

Respondents	N	$\bar{X}$	STD	DF	Z-cal	Z-crit	Level of sign	Decision
TEACHERS	210	3.20	0.79					
STUDENTS	328	3.21	0.78	536	0.72	1.96	0.05	Not significant

The result of Table 4.4 indicated that the z-calculated (0.72) was less than the z-critical (1.96) at the degree of freedom (536) and 0.05 significant levels. Hence, the null hypothesis of no significant difference in mean responses of teachers and students on how communication skills influence students' academic performance was accepted.

**Ho<sub>2</sub>:** There is no significant difference in mean responses of teachers and students on how discussion method influences students' academic performance.

**Table 5: Test of Hypothesis using Z-test**

Respondents	N	$\bar{X}$	STD	DF	Z-cal	Z-crit	Level of sign	Decision
TEACHERS	210	3.11	0.80					
STUDENTS	328	3.19	0.78	536	0.81	1.96	0.05	Not significant

The result of Table 4.5 indicated that the calculated z-calculated (0.81) was less than the z-critical (1.96) at the degree of freedom (536) and 0.05 significant levels. Hence, the null hypothesis of no significant difference in mean responses of teachers and students on how discussion method influences students' academic performance was accepted.

**Ho<sub>3</sub>:** There is no significant difference in mean responses of teachers and students on how demonstration method influences students' academic performance..

**Table 6: Test of Hypothesis using Z-test**

Respondents	N	$\bar{X}$	STD	DF	Z-cal	Z-crit	Level of sign	Decision
TEACHERS	210	3.21	0.80					
STUDENTS	328	3.18	0.79	536	0.99	1.96	0.05	Not significant

The result of Table 4.6 indicated that the calculated z-calculated (0.99) was less than the z-critical (1.96) at the degree of freedom (536) and 0.05 significant levels. Hence, the null hypothesis of no significant

difference in mean responses of teachers and students on how demonstration method influences students' academic performance was accepted.

### **Summary of the Study**

The background of the study critically looked at the variables and subject matter of the study. More so, Interaction Theory, Expectancy Theories of Motivation, The Lewin's Level of Aspiration Theory, The Atkinson's Achievement Motivation Theory and The Vroom's Expectancy Theory were used for the study. In addition, the variables such as: communication skills, discussion, demonstration, instructional materials and inquiry method were extensively reviewed.

### **Educational Implication**

The following implications for educational system were observed from the study based on the findings. From the study, it was observed that the teachers and the students all subscribed on the importance of class interaction in the teaching and learning process. However, this process has not been utilized in schools. Which if continue, will increase the poor performance of some of the students who would have done well if the teaching and learning process is an interactive one.

Again, if the teachers are not oriented and reoriented on performance the classroom interaction through workshops or seminars, the implication might also be poor performance of some of the students who would have done well if the teaching and learning process is an interactive one.

### **CONCLUSION**

Based on the findings, it is therefore concluded classroom interaction influence performance by assisting learners to develop self-awareness and capacity for self-critique, appreciation of diversity of the subject goals and objectives, encourages mutual responses between the lecturer and students. From the findings also, classroom interactions is fundamental for the development of students' academic performance when the strategies of communication skills, demonstration, discussion, utilization of instructional materials and inquiry method. This implies that the teacher in teaching and learning process focuses on the best method, looking for the most appropriate approach, design of materials, or set of procedures in a particular case. It is a paradigm shift from teacher centered to a student centered environment while maintaining a teacher led activity.

Hafiz and Muhammad (n.d.) evaluated the Patterns of Classroom Interaction at Secondary Level in the North West Frontier Province of Pakistan using Flander's Interaction Analysis system. The major objective of their study was to explore the various patterns of classroom interactions at secondary levels. Their study was significant because its findings and conclusions stimulate the teachers to improve their teaching behaviour in order to maximize students learning.

### **RECOMMENDATIONS**

1. Appropriate communication skills should be utilized for proper classroom interactions among the teachers and the students.
2. The teachers should adequately examine the nature of lesson objectives to determine how the students can be actually involved in discussion the technical aspects of the subject matter.
3. The teachers need to identify the practical activities that will involve in learning a particular lesson to admit demonstration method.

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