

## Degrees of Representation of Features and Involvement of Learners in Discussion Method by Class Teachers

Jolly D. Kukururu

*Department of Social Science Education, Adekunle Ajashin University, Akungba- Akoko, Ondo State, Nigeria*

**KEYWORDS** Teacher. Observation. Class. Interaction. Teaching Method

**ABSTRACT** Degrees of representation of features and involvement of learners in discussion method by class teachers is the submission in this article. Thirty- two (32) class teachers drawn from Junior and Senior Secondary Schools in sections of Akure, Ondo State, Nigeria, participated in the research. A Use of Discussion Method by Class Teachers formed the instrument. Three features of discussion method: questioning, listening, and responding, were the central elements of the instrument. A copy of the instrument was used to record the performance of each teacher under observation, by the researcher. Data obtained were analyzed using frequencies, percentages, and Chi-square ( $\chi^2$ ) statistics. Findings show that features of discussion method were (i) identifiable with class teachers in Junior Secondary School (JSS) more than with class teachers in Senior Secondary School (SSS) significantly, (ii) not available in lesson notes/plans of teachers in both JSS and SSS, (iii) available in JSS but not in SSS in practical presentation of objectives, (iv) not represented under methodology in lesson notes/plans of teachers, (v) class teachers did not involve learners in discussion ( $\chi^2 = 38.440$ ). Four recommendations are made to reduce the inadequacies: class teachers should be representative enough in lesson preparations on paper and increase involvement of learners in discussion; teacher preparation should underscore efficiency in paper -work preparation and in-service programs should stress required improvements.

### INTRODUCTION

Employing ideas from The World Book Inc. (2001) and Wehmeier (2006), pedagogy, in relation to teacher education, may be defined as standard, tested, and approved *procedure* in teaching. Three words are qualifying the subject 'procedure', namely, standard, tested, and approved. 'Standard' is a specified level of quality, skill, ability or achievement considered as adequate (The World Book Inc. 2001; Geddes and Grosset 2003; Woodford and Jackson 2003; Wehmeier 2006; Summers 2007). 'Tested' implies tried, that is, a situation that showed how good something was, hence demonstration (tried) to show how good it is. 'Approved' means officially recognized as being of particular level of standard. The three words have similarities. However, it seems that for research purpose, they are stated in an order of sequence. A standard could have been tried and recognized as being of particular level before being made public. But the public or researchers in this context would still need to try the standard before recognizing it as attaining an acceptable level. If these explanations, on the qualifying words appear too rhetorical, then two of the qualifying words may be put in bracket. Consequently, pedagogy may

be defined as standard (tested/approved) procedure in teaching. In this respect, any of the three qualifying words may be used at a point. Sadker and Sadker (1997) discussed pedagogical cycle, that is, teaching cycle that is standard (tested/approved). It was noted as having four moves, namely, structure, question, respond, (and) react. On structure, the teacher provides information, direction, and introduces the topic. Next, the teacher asks a question; thirdly, the student answers the question or tries to; finally, the teacher reacts to the student's answer and provides feedback. These issues are not fundamentally at variance with those of Brown (1993). A major picture that is emerging is *interaction between teacher and learners* in the pedagogical cycle. A cycle is a number of related events that happen again and again *in the same order* (Summers 2007) or the fact of a series of events being repeated many times, *always in the same order* (Wehmeier 2006). Thus, the pedagogical cycle should be a scene of action between teacher and learners and vice – versa, which should occur repeatedly in the same order. Ezeokoli (1999) observed that the interaction view of teaching characterizes learners as active participants in the teaching – learning process. Brookbank and McGill (1998) noted that a mode of teaching that

places emphasis on transmission of knowledge and ideas is not conducive to critical reflective learning. McKenzie (2003) asserted that we need to construct a reflective pedagogy of learning and teaching. It seems that worries of the last two writers were attended to by Brown (1993) and Sadker and Sadker (1997).

An issue that becomes obvious following the definition of pedagogy is training, that is, a teacher preparation program which should fairly be rigid on fundamentals before being liberal on non-fundamentals, otherwise there would be no identity or profession or standard, that has been noted above in this introduction. One point in the National Policy on Education of the Federal Republic of Nigeria is that, it is imperative that teachers in professional fields have relevant professional experience (FRN 2004). Imogie (2006) showed that knowledge of how to interact with learners effectively by teacher would come through training. Ayeni (2007) noted that how to improve the quality of teaching and sustain the integrity of the teacher is through training. Archibong (2007) stressed that the teacher needs to be very effective so as to relate content to learners effectively.

Akande (2002) presented activity based methods, namely, research, project, experiment, discussion, demonstration, problem-solving, games and simulations, play-way, role playing, field-work, and) assignment. Akande commented that what makes each of the methods valuable is that learners are actively involved in a lesson by learning through activity. Seweje (2004) stated that a lesson note/ plan format which severs content from methodology (lesson procedure: the pedagogical cycle) is particularly good for activity based methods. Olaofe (2008) carried out a study on reflective thinking activities on teacher training and re-training. Some of his results were that classroom interaction increased, more activities were introduced, and teachers' appreciation of activity based teaching improved. Sadker and Sadker (1997) presented their version of activity based methods which they called variety in process and content. They include those of Akande (2002) stated above as well as numerous others as follows: lectures, movies, tapes, and other audio-visual presentations; small group activities, guest speakers, independent seat work, guided practice, student presentations, tests, silent reading, contests, creative writing, board work, participation in learn-

ing centres, music activities, art activities, tutoring, sport quizzes, panel discussions, debates, brain storming sessions, students tutoring one another, and cooperative learning activities. This array of activities (or varieties), appears rich enough for a well informed teacher to choose appropriate ones, for given topics, in various environments, within a limited duration of time.

Sadker and Sadker (1997) commented that the array of activities that they presented provided only a beginning. More of good teaching skills were to follow. Accordingly, the authors presented *current models* for effective teaching. Four models which had been proved as successful in facilitating student achievement were presented. They were direct teaching, cooperative learning, mastery learning, and project based instruction. Direct teaching was noted as specially effective for subjects that are highly structured; cooperative learning enhances achievement as well as interpersonal skills and relationships; mastery learning can make learners master objectives if sufficient (especially individual) time is allowed; while project based instruction provides students with opportunity to explore real academic issues. Sadker and Sadker (1997) presented new directions for effective teaching. They observed that research conducted in the 1980s sought to determine specific teaching behaviour that would result in student greater achievement. The goal was to establish a scientifically based blue-print for effective instruction. However, research in the 1990s is more closely grounded in the principles of how students learn, not as passively receiving information but rather as intentionally constructing their own meaning (Sadker and Sadker 1997: 69).

Four constructs were presented as fundamental to the new research on effective teaching as follows:

- (1) multiple forms of knowledge
- (2) significance of deep rather than shallow teaching
- (3) importance of prior knowledge
- (4) social nature of learning.

In explaining each of these constructs, one teaching method emerged as vital to effective teaching, namely, discussion. Only in multiple forms of knowledge is the method not pronounced because in it content specific teaching skills, that is, skills peculiar to each subject area, are needed. But amount of content details are expected to be reduced to summary so that stu-

dents may gain in-depth understanding, in deep rather than shallow teaching. Instead of lecturing to cover superficially a vast body of information, teachers need to organize their content around a limited set of key principles and powerful ideas and then engage students in *discussing* these concepts. They added that the stress is on problem solving and critical thinking, effective/ analytical thinking as opposed to memory. The teacher should elicit prior knowledge of students through *discussion* and high cognitive levels questions. When prior knowledge is made explicit, teacher could help students to link new information to the prior knowledge or guide them to confront and correct prior knowledge that is not accurate. Social nature of learning and of the class, are highlighted by the new vision on effective teaching. As a result, the teacher should assume the position of a guide or facilitator that is skillful in conducting *discussions*, group work, debates, and dialogues. In this process, the teacher empowers students to talk with each other and rehearse the terms and concepts specific to each discipline.

Straightaway, it could be seen that discussion is central in three out of the four constructs for new directions for effective teaching. High cognitive levels questions mentioned under importance of prior knowledge are really part of discussion. Group work and dialogues, under social nature of learning, are versions/variants of discussion; even debates could be called practices of discussion or vice-versa. If quantifiable, it may not be too much to say that discussion's role, in the new directions for effective teaching, would not be less than 60%; the outward is not less than 70%. If a method is so pronounced, it implies that proportional enough attention should be paid to it. Two main ideas are relevant in the word discussion: To *discuss* is to:

- (1) Talk about something with another person or a group in order to exchange ideas or decide something.
- (2) Talk about or write about something in detail and consider different ideas or pinions about it (Woodford and Jackson 2003; Wehmeier 2006; and Summers 2007).

So, discussion is doing either thing or both things.

Brookfield and Preskill (1999) is a whole volume on discussion as a way of teaching. The authors held that discussion is an indispensable

aspect of democratic education. They presented fifteen benefits of the method as follows: (1) helping students to explore diverse perspectives, (2) students' awareness of and tolerance for ambiguity or complexity is increased, (3) students receive assistance to recognize and investigate their assumptions, (4) attentive, respectful listening is encouraged, (5) new appreciation for continuing differences is developed, (6) intellectual agility of students is increased, (7) students become connected to a topic, (8) respect for voices and experiences of students is shown, (9) students learn the processes and habits of democratic discourse, (10) students are affirmed as co-constructors (co-creators) of knowledge, (11) capacity for clear communication of ideas and meaning is developed, (12) habits of collaborative learning are developed, (13) breadth of students is increased and it makes them empathic, (14) skills of synthesis and integration are developed in students, and (15) discussion leads to transformation. Larson (1999) supported these benefits of Brookfield and Preskill (1999) but observed that in spite of its numerous benefits, discussion *did not frequently* occur in classes. An implication is that the new directions to effective teaching, where discussion is expected to play a major role, would be far from being realized. Fundamentally, discussion goes on through three skills, namely, questioning, listening, (and) responding (Brookfield and Preskill 1999; Larson 1999; Biggs 2003). These skills may be termed the main features of discussion.

Kukuru (2006) apparently was a product of new awareness on the role of discussion method in effective teaching. The article encouraged teacher trainers to give discussion method proportionate content/coverage, on paper/in planning. Students being taught, should be practically taught discussion as much as possible including micro-teaching sessions, while teaching practice period should be a vital and last time for trainees to self-actualize on the method. Consequent upon the foregoing, supervisors of teaching practice are expected to ensure that would-be teachers demonstrate considerable mastery of discussion skills before they could be awarded merit score. Graduated teachers need observation in classes to ascertain degree to which they master discussion. Extent of use (involvement) of the method by teachers equally requires investigation. This article is

a response to the last point. The objective of this article is to investigate degrees of representation of features and involvement of learners in discussion method by class teachers.

### Purpose of Research

The purpose of this research was to:

1. Determine extent to which features of discussion method namely, questioning, listening, and responding, could be *identified* in classes of teachers.
2. Ascertain degree to which features of discussion method namely, questioning, listening and responding, are *available in lesson notes/plans* of class teachers.
3. Ascertain degree to which features of discussion method namely, questioning, listening, and responding, would be *available in practical presentation* of objectives in lessons by class teachers.
4. Identify degree to which features of discussion namely, questioning, listening, and responding, would be *represented, under methodology, in lesson notes/plans* of teachers.
5. Verify extent to which *class teachers involve learners* in discussion through its features.

### Research Questions

The following questions guided this research:

1. To what extent would features of discussion method, namely, questioning, listening, and responding, be identified in classes of teachers?
2. To what degree would features of discussion method namely, questioning, listening, and responding, be available in lesson notes/plans of class teachers?
3. What is the degree to which features of discussion method, namely, questioning, listening, and responding, would be available in practical presentation of objectives in lessons by class teachers?
4. What is the degree to which features of discussion method namely, questioning, listening, and responding, would be represented, under methodology, in lesson notes/plans of class teachers?
5. To what extent would class teachers involve learners in discussion through its features?

### Research Hypotheses

The following hypotheses are tested in this research:

1. There will be no significant difference between performances of class teachers that would be positive in relation to identification of features of discussion method, namely, questioning, listening, and responding and performances of class teachers that would be negative, in relation to same features of discussion method, in junior as well as in senior secondary schools.
2. There will be no significant difference between the performances of class teachers that would be positive in relation to availability of features of discussion method namely, questioning, listening, and responding in lesson notes/plans and performances of class teachers that would be negative in relation to same features in lesson notes/plans in junior as well as in senior secondary schools.
3. There will be no significant difference between the performances of class teachers that would be positive in relation to availability of features of discussion method, namely, questioning, listening, and responding in practical presentation of objectives in lessons and performances of class teacher that would be negative in relation to same features of discussion method and class conditions, in junior as well as in senior secondary schools.
4. There will be no significant difference between the performances of class teachers that would be positive in relation to representation of features of discussion method, namely, questioning, listening, and responding, under methodology, in lesson notes/plans and performances of class teachers that would be negative, in relation to same features of discussion method under methodology in lesson notes/plans, in junior as well as in senior secondary schools.
5. There will be no significant difference between the performances of class teachers that would be positive in relation to involvement of learners in discussion method and performances of class teachers

that would be negative in the same relation in junior as well as in senior secondary schools.

## RESEARCH METHODOLOGY

### Design of Research

This was an observational research. It may even be called survey observational research due to the size of the sample as could be seen below. Teachers were watched in real classes as they interacted with learners (presented their objectives).

### Population of Research

All secondary school teachers both junior and senior, in west, central, and southern sections of Akure, capital of Ondo State of Nigeria, formed the population of this research.

### Sample of Research

Thirty- two (32) teachers, sixteen (16) in junior secondary school, and sixteen (16) in senior secondary school, selected using non-probability quota sampling technique (Bandeled 2004:98) from the identified population, participated in the research. Teachers in the junior secondary school taught Social Studies, Christian Religious Knowledge (CRK), English Language, and Mathematics while teachers in the senior secondary school taught Economics, Government, Geography, and Accounts/Commerce. Each teacher taught one subject only, which was or related to his/her area of specialization.

### Instrument for Research

A 'Use of Discussion Method by Class Teachers' (UDMCT), developed by the researcher, was the instrument used for this research. Its main structure was informed by Brookfield and Preskill (1999), Larson (1999), and Biggs (2003). Main features of discussion method, namely, questioning, listening, and responding, as specified by these authors, were the factors on which the instrument rested.

### Method of Data Collection

Copies of the instrument were produced, enough for the required sample of 32 teachers.

As each teacher was observed, a copy of the instrument was used to record his/her performance in class. Observations were carried out by the researcher who was trained in observational research and involved observation in his Ph.D. research.

### Validity and Reliability of Instrument

Based on points under the last two headings sources of the main structure of the instrument: main features of discussion method and approved competence of the researcher in observational research as well as simplicity of the instrument), issues of validity and reliability of the instrument, seemed not required.

### Method of Data Analysis

Obtained data were analyzed using frequencies, percentages, and Chi-Square ( $\chi^2$ ) statistics.

**Identification of Features of Discussion Method:** At the JSS level, among the 16 classes observed, features of discussion method, namely questioning, listening, and responding, *could be identified peripherally* in 15 classes. In 1 (one) class only, discussion features could not be identified, that is, Social Studies class at JSS III, in the first school on the comprehensive table. The summary is that 15 classes are positive while 1 (one) class is negative in identification of the features of discussion method. At the SSS level, among the 16 classes observed, features of discussion method could be identified in 9 classes while in 7 classes, the features could not be identified. The summary is clearly 9 positive and 7 negative on identification of features of discussion method (Table 1 ai and aii).

**Degree of Availability of Features of Discussion Method in Lesson Notes/Plans:** At the JSS level, among the 16 classes observed, features of discussion method, namely, questioning, listening, and responding, were fairly obvious in 2 classes while the features were not obvious in 14 classes. The summary is 2 positive and 14 negative on availability of discussion method in Lesson Notes/Plans of teachers observed. At the SSS level, among the 16 classes, observed, the result is the same as that of the JSS level just stated above (Table 1 bi and bii).

**Table 1: Identification of features of discussion method as well as degree of availability of features.**

		<i>lai</i>			<i>lbi</i>			<i>lci</i>					<i>lai</i>			<i>lbi</i>			<i>lci</i>				
		<i>Identification of discussion method through features</i>			<i>Degree of availability of features</i>			<i>Degree of availability of features</i>			<i>Individual Name of School</i>	<i>Identification of discussion method through features</i>			<i>Degree of availability of features</i>			<i>Degree of availability of features</i>					
		<i>Questioning, listening, responding</i>			<i>In lesson note/plan</i>			<i>Practical presentation of objectives</i>				<i>Questioning, listening, responding</i>			<i>In lesson note/plan</i>			<i>Practical presentation of objectives</i>					
		<i>All identifiable</i>	<i>Two tifi-able</i>	<i>One iden-tifi-able</i>	<i>None iden-tifi-able</i>	<i>Quite obvi-ous</i>	<i>Fairly obvi-ous</i>	<i>Not obvi-ous</i>	<i>Quite obvi-ous</i>	<i>Fairly obvi-ous</i>	<i>Not obvi-ous</i>			<i>All identifiable</i>	<i>Two tifi-able</i>	<i>One iden-tifi-able</i>	<i>None iden-tifi-able</i>	<i>Quite obvi-ous</i>	<i>Fairly obvi-ous</i>	<i>Not obvi-ous</i>	<i>Quite obvi-ous</i>	<i>Fairly obvi-ous</i>	<i>Not obvi-ous</i>
OGS	JSS	3	0	0	1	0	1	3	0	3	1	SSS	1	0	0	3	0	0	4	0	1	2	3
UCAC	JSS	4	0	0	0	0	0	4	0	4	0	SSS	2	0	0	2	0	2	2	0	2	2	2
STAS	JSS	4	0	0	0	0	0	4	1	2	1	SSS	2	0	0	2	0	0	4	0	1	3	3
ACHS	JSS	4	0	0	0	0	1	3	1	2	1	SSS	4	0	0	0	0	0	4	0	1	3	3
3Total	JSS	15/16	0/16	0/16	1/16	0/16	2/16	14/16	2/16	11/16	3/16	Total SSS	9/16	0/16	0/16	7/16	0/16	2/16	14/16	0/16	5/16	11/16	11/16
Summary		A 15 : 1 PTE : NTE			B <sup>I</sup> 2 : 14 PTE : NTE			B <sup>II</sup> 13 : 3 PTE : NTE					A 9 : 7 PTE : NTE			B <sup>I</sup> 2 : 14 PTE : NTE			B <sup>II</sup> 5 : 11 PTE : NTE				

Note: PTE means Positive  
NTE means Negative

{ OGS  
UCAC  
STAS  
ACHS }

Abbreviations for dual names of secondary schools that participated

**Degree of Availability of Features of Discussion Method during Practical Presentation of Objectives:** At the JSS level, among the 16 classes observed, features of discussion method, namely, questioning, listening, and responding, were *quite obvious* in 2 classes, fairly obvious in 11 classes, but not obvious in 3 classes. The summary is 13 positive and 3 negative. At the SSS level, among the 16 classes observed, the features were fairly obvious in 5 classes but not obvious in 11 classes. The summary is 5 positive and 11 negative on degree of availability of features of discussion method during practical presentation of objectives (Table 1 ci and cii).

**Degree of Representation of Features of Discussion Method under Methodology (Lesson Procedure) in Lesson Notes/ Plans:** At the SSS level, among the 16 classes observed, features of discussion method, namely, questioning, listening, and responding, were fairly well represented in 3 classes while the features were not represented in 13 classes. The summary is that 3 classes have positive results while 13 classes have negative results. At the SSS level, among the 16 classes observed, features of discussion method were fairly well represented in 2 classes but not well represented in 14 classes. The summary is that 2 classes have positive results while 14 classes have negative results (Table 2 ai and aii).

**Degree of Involvement of Learners in Discussion Method:** At the JSS level, among the 16 classes observed, 2 teachers very actively involved learners in features of discussion method, namely, questioning, listening, and responding, 3 teachers moderately actively involved learners in the features, while 11 teachers did not actively learners in features of discussion. The summary is that 5 teachers have positive results while 11 teachers have negative results. At SSS level, among the 16 classes observed, 1 (one) teacher actively involved learners features of discussion method while 15 teachers did not actively involve learners in features of discussion method. The summary is that 1 (one) teacher has positive result while 15 teachers have negative results (Table 2 bi and bii).

Chi Square ( $\chi^2$ ) comparisons of the summary results on Tables 1 and 2 are presented on Tables 3a, b and c and 4a and b. It should be noted that Table 1 is a pre-requisite to Table 2. In the same vein, Table 3 is a stepping stone to Table 4 on

**Table 2: Degree of representation of features of discussion method under methodology and degree of involvement of learners in discussion**

Dual name of school	2ai				2aii				2bii			
	Degree of representation features under methodology				Degree of representation of features under methodology				Degree of involvement of learners in discussion			
	Very well	Fairly well	Not well	Total	Very well	Fairly well	Not well	Total	Very actively	Moderately actively	Not actively	Total
O/S	0	1	3	4	0	0	4	4	0	0	0	0
UCAC	0	0	4	4	0	1	3	4	0	1	0	1
STAS	0	0	4	4	0	0	4	4	0	0	0	0
ACHS	0	2	2	4	0	1	3	4	0	0	0	0
Total	0/16	3/16	13/16	16/16	0/16	2/16	14/16	16/16	0/16	1/16	0/16	15/16
Summary	A 3 : 13 PTE : NTE				A 2 : 14 PTE : NTE				B 5 : 11 PTE : NTE			

Note: PTE means Positive  
NTE means Negative  
O/S, UCAC, STAS, ACHS are abbreviations for dual names of secondary schools that participated  
Chi-Square ( $\chi^2$ ) comparisons of the summary results on Tables 1 and 2 above are presented on Tables 3a,b,c and 4a and b below.

the Chi-square ( $\chi^2$ ) comparisons. Table 4, therefore (Table 4a and b), is the crux of this research. *Representation of features and involvement of learners in discussion method by class teachers* are more important than identifying of the features or their being made available: the former serve as evidences to the latter. The stated hypotheses may now be tested using the Chi-square ( $\chi^2$ ) comparisons on Tables 3, 4.

**Testing of Hypotheses**

**Hypothesis 1:** The hypothesis states that there will be no significant difference between the performances of class teachers that would be positive, in relation to identification of features of discussion method, namely, questioning, listening, and responding and performances of class teachers that would be negative on same features of discussion method, in junior as well as in senior secondary schools. Table 3 provides data to test this hypothesis. At the junior secondary school level, this hypothesis is rejected: there is a significant difference in favour of class teachers with positive performances in relation to identification of features of discussion method:  $\chi^2 = 77.440$  at .000 levels of significance. At the senior secondary school level, the hypothesis is accepted: there is no significant difference between the teachers with positive performances and teachers with negative performances:  $\chi^2 = 1.440$  where critical value is 3.841.

**Hypothesis 2:** This hypothesis states that there will be no significant difference between the performances of class teachers that would be positive in relation to availability of features of discussion method, namely, questioning, listening, and responding in lesson notes/plans and performances of class teachers that would be negative, in relation to same features in lesson notes/plans, in junior as well as in senior secondary schools. Table 3b provides figures to test this hypothesis and it is rejected at both junior and senior secondary schools levels. At the junior secondary school level, the  $\chi^2$  value is 54.760 at .000 levels of significance. At the senior secondary school level, same indices are *incidentally observable*:  $\chi^2$  value is 54.760 at .000 levels of significance.

**Hypothesis 3:** It states that there will be no significant difference between the performances

**Table 3a,b,c:  $\chi^2$  comparisons of summary results on Table 1: Totals of positive performances compared to totals of negative performances**

Type of School	Teachers with positive performances	Teachers with negative performances	Percentage	Percentage	Chi-Square ( $\chi^2$ )	Degree of freedom	Table value	Significant level	Remark
JSS (i)	15	1	93.75	6	77.440	1	3.841	.000	Significant (ST)
SSS (i) (NST)	9	7	56	44	1.440	1	3.841	.230	Not Significant
<b>Table 3a : Identification of discussion method through its features: questioning, listening, and responding at JSS and SSS levels</b>									
<b>Table 3b : Degree of availability of features of discussion method in lesson notes/plans of teachers at JSS and SSS levels</b>									
JSS (ii)	2	14	13	87	54.760	1	3.841	.000	ST
SSS (ii)	2	14	13	87	54.760	1	3.841	.000	ST
<b>Table 3c : Degree of availability of features of discussion method during practical presentation of objectives by class teachers at JSS and SSS levels</b>									
JSS (iii)	13	3	81	19	38.440	1	3.841	.000	ST
SSS (iii)	5	11	31	69	14.440	1	3.841	.000	ST

**Table 4a and b:  $\chi^2$  comparisons of summary results on Table 2**

Type of School	Teachers with positive performances	Per-cent-ages	Teachers with negative performances	Per-cent-ages	Chi-Square ( $\chi^2$ ) comparison between positive and negative	Degree of freedom (df)	Table-value	Signifi-cance level obtained	Remark
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**Table 4a: Degree of representation of features of discussion method under methodology in lesson notes/plans by class teachers at JSS and SSS levels**

JSS (i)	3	19	13	81	38.440	1	3.841	.000	Significant
SSS (i)	2	13	14	87	54.760	1	3.841	.000	ST

**Table 4b: Degree of involvement of learners in discussion method by class teachers at JSS and SSS levels**

JSS (ii)	5	31	11	68.75	2.250	1	3.841	.134	Not Significant
SSS (ii)	1	6	15	94	77.440	1	3.841	.000	ST

of class teachers that would be positive in relation to availability of features of discussion method, namely, questioning, listening, and responding in practical presentation of objectives (in lessons) and performances of class teachers that would be negative in relation to same features of discussion method, in practical presentation of objectives, in junior as well as in senior secondary schools. Table 3c provides information to test this hypothesis.

At the junior secondary school level, this hypothesis is rejected: there is a significant difference in favour of class teachers with positive results:  $\chi^2 = 38.440$  at .000 levels of significance. At the senior secondary school level, the hypothesis is also rejected: there is significant difference against class teachers with positive performances:  $\chi^2 = 14.440$  at .000 levels of significance.

**Hypothesis 4:** The hypothesis states that there will be no significant difference between the performances of class teachers that would be positive in relation to representation of features of discussion method, namely, questioning, listening, and responding, under methodology, in lesson notes/plans and performances of class teachers that would be negative, in relation to same features in discussion method, under methodology, in lesson notes/plans, in junior as well as in senior secondary schools. Table 4a provides figures to test this hypothesis and it is rejected at both junior and senior secondary schools levels. At the earlier level,  $\chi^2 = 38.440$  at .000 levels of significance. At the latter level,  $\chi^2 = 54.760$  at .000 levels of significance.

**Hypothesis 5:** This hypothesis states that there will be no significant difference between

the performances of class teachers that would be positive in relation to involvement of learners in discussion method and performances of class teachers that would be negative, in same relation, in junior as well as in senior secondary schools. Table 4b gives information required to test this hypothesis and it is rejected at both school levels:  $\chi^2$  value for junior school = 14.440 at .000 levels of significance while  $\chi^2$  value for senior school is 77.440 at .000 levels of significance.

## DISCUSSION

Comparison of summary result under hypothesis 1 (Table 3a) shows that there is a significant difference in favour of class teachers with positive performances in relation to identification of features of discussion method at the junior secondary school level but no significant difference at the senior secondary school level. It implies that class teachers in the junior secondary school involved discussion method more than class teachers in the senior secondary school. It should be noted, however, that this is the least qualitative concern, a *peripheral identification of features* of discussion method, namely, questioning, listening, and responding. Findings in the subsequent problems would give more qualitative and critical picture.

Under the second comparison (Table 3b), the hypothesis is rejected at both secondary school levels. The implication is that class teachers in this sample generally, significantly did not represent features of discussion method, namely, questioning, listening, and responding, in their lesson notes/plans. Incidentally, the result is the same for both school levels. Four (4) class teach-

ers only, represented the features in both schools while twenty-eight (28) class teachers did not represent the features. A finding, following the result of the first comparison is that, the class teachers were less effective in representing features of discussion method on paper than talking about them practically. This situation suggests in a sense, that the professional backgrounds of teachers in this sample appeared weak in paperwork preparation. Following the observation of Larson (1999) that discussion did not frequently occur in classes, it seems not to be a surprise since it is what someone is used to doing that he/she would do. Another support to this situation is that of Kane (2002) which stated that pre-service teacher education programmes tended to re-enforce a model of teaching as telling. A model of teaching as telling can hardly go beyond chalk and talk method which is lecture or expository.

In the third comparison (Table 3c), there is a significant difference in favour of class teachers with positive results in relation to availability of features of discussion method in practical presentation of objectives in the junior school. It shows that the class teachers that represented questioning, listening, and responding, in real presentation of objectives were significantly more than class teachers that did not represent the features practically. This finding partly supports the comment in the last paragraph that the class teachers in this sample were less competent on paper work; they performed better in real class presentations. In the senior school, reverse is the situation. Class teachers that did not represent features of discussion method in real presentations were significantly more than class teachers that did represent the features. There seems to be an order from the second findings situation to that of this third situation: there is a decrease in discussion in the third situation that is teachers in SSS are less willing to use discussion in practical presentation of objectives than teachers in JSS. Perhaps, such teachers felt that more advanced learners require less discussion than less advanced learners. While that may hold sway for some people, it seems that all secondary school learners (including SSS) require discussion. In a sense, SSS learners should be better developed intellectually hence they should employ discussion to tap its numerous benefits (Brookfield and Preskill 1999; Larson 1999).

Significant differences are observable in the fourth comparison at both school levels (Table

4a). It implies that the class teachers in both schools significantly did not represent features of discussion method, under methodology (lesson procedure, lesson presentation: pedagogical cycle *on paper*) in their lesson notes/plans. This result further supports the comment made under comparisons two and three above that the class teachers in this sample performed less effectively on paper work compared to real teaching in class. It may be noted that an order of development is movement from theory to practice. Thus, it is an inadequate foundation if a teacher training programme is weak in paperwork preparation. Besides the need for paperwork to serve as evidence of competence on the part of the teacher, Igwe (2003) observed that a well documented preparation makes it easy for one teacher to stand in for another in case of any unavoidable circumstance. Biggs (2003) noted that such a preparation is needed to avoid derailing in a curriculum based system.

Significant levels exceeding probability of one thousand (.000) are observable at both school levels in the final comparison. It shows that most of the class teachers in the schools did not involve learners in discussion. Table 4b shows that only 6 (six) class teachers (5 in JSS+1 in SSS) involved learners in discussion, 26 (twenty-six) class teachers did not. Furthermore, Table 2 (2bi and 2bii) (2/16 in JSS and 0/16 in SSS) above and Table 5 serial number fifteen below, show that two class teachers only, *actively involved* learners in discussion. This finding agrees with that of Larson (1999) that discussion did not frequently occur in classes. It also seems to confirm the observation of Kane (2002) that pre-service teacher education programmes tended to re-enforce a model of teaching as telling. Thus McKenzie's (2003) emphasis that construction of a reflective pedagogy was needed, becomes vital.

Total of Negative cases = 26, Total of Positive cases = 6 (2+2+2) = 81%: 19%;  $\chi^2$

Comparison gives value of 38.440 at .000 levels of significance.

## CONCLUSION

It may be concluded from the discussion that the class teachers in this sample were not quite effective in representing what they were presenting in real classes, on paper: in lesson notes/plans and Learners were significantly not involved in class discussion.

**Table 5: Comments on interaction of class teachers with learners at a glance**

S. No.	Type of situation	Frequency of each situation	Total frequency of each situation
1.	Lecture, no interaction	11111111111	11
2.	Lecture, two questions recorded	11	2
3.	Yes and no, information level questions	111	3
4.	Few passive questions	1	1
5.	Chorus answered questions, not discussion	1	1
6.	Two passive questions and answers	1	1
7.	Few intermittent questions in practice	11	2
8.	Few interventional questions	1	1
9.	Teacher being eager to pick up (answer) each of <i>three</i> questions asked	1	1
10.	One question only	1	1
11.	One question only in three objectives	1	1
12.	Expository	1	1
13.	Teacher-centred but practically involved learners to an extent	11	2
14.	Moderate discussion	11	2
15.	Discussion; discussion enough	11	2
Total		32	32

Note: Assembled from comprehensive data obtained.

Situations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12: Learners were not actively involved in discussion by class teacher = 26 cases

Situations 13 and 14: Learners were fairly actively involved in discussion by class teachers = 4 cases

Situation 15: Learners were very actively involved in discussion by class teachers = 2 cases

## RECOMMENDATIONS

Following are major recommendations that are meant to help reduce the inadequacies identified in this research.

Class teachers should be made to be representative enough in their lesson preparations on paper. Summary characteristics of issues on objectives to be presented, major questions and answers, teaching media and how they should be used, are better stated on paper. Indeed, the work would be scientific (objective) and would give both class teacher and supervisor of any type or researcher, evidence of competence.

Extent of involvement/use of discussion method's features should be increased in view of its ascribed role in the new directions for effective teaching with respect to significance of deep rather than shallow teaching, importance of prior knowledge, and social nature of learning; it will still play some elements of role in multiple forms of knowledge especially in social science disciplines where reflection/critical scrutiny of issues is a focus.

Teacher training/preparation programmes in the faculties and colleges of education need to underscore efficiency in paper work preparation for trainees, more than before, following the results of this research.

In-service training programmes in form of short-term courses, conferences, seminars, and workshops, could be organized for service teachers, to fill vacuum in good paperwork preparation.

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