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Encouraging Representation and Involvement of Learners on Discussion Method's Features towards Ensuring Effective Teaching

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Author's contribution

The author JDK designed the study, performed the statistical analyses, wrote the protocol and the final draft of the manuscript. The introduction was re-structured through suggestion of one Reviewer and guides for final editing process which further improved the manuscript were suggested by another Reviewer.

Research Article

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ABSTRACT

Aim: To investigate degrees to which classroom teachers presented features of discussion method in their lesson presentations and how they involved learners on the features, namely, questioning, listening, and responding in classrooms.

Study Design: Lesson/Class Observation.

Place and Duration of Study: West, Central and Southern sections of Akure, capital of Ondo State of Nigeria between October 2011 and February 2012.

Methodology: Thirty two (32) classroom teachers, 16 in junior and 16 in senior secondary schools participated in the research. Teachers in junior secondary schools taught social science related subjects including English Language and Mathematics while teachers in senior secondary schools taught social science subjects only. A 'Use of Discussion Method by Classroom Teachers' (UDMCT) developed by the researcher formed the major instrument. Its validity and reliability were ensured through appropriate professional procedures before use. Two other instruments, namely, Form to obtain demographic data from the participating teachers and Tape Recorder to record each interaction in class served as support. All three instruments were used to observe each participating teacher

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by the researcher to ensure uniformity in recording.

Results: Features of discussion method were identifiable with classroom teachers in junior secondary schools (JSS) more than with classroom teachers in senior secondary schools (SSS) (15 out of 16 in JSS and 9 out of 16 in SSS). The features were significantly not available in lesson notes/plans of the teachers in both JSS and SSS (2 out of 16 in either type of school). In practical presentation of objectives, the features were significantly available in JSS but not in SSS (13 out of 16 in JSS but 5 out of 16 in SSS). The features were significantly not represented under methodology in lesson notes/plans in both JSS and SSS (3 out of 16 in JSS and 2 out of 16 in SSS). Finally the learners were significantly not involved in discussion (5 out of 16 in JSS and 1 out of 16 in SSS).

Conclusion: The observed teachers performed adequately well on identification of the features of discussion method; a group of them (JSS) performed considerably well in practical presentation of objectives but both types of school performed inadequately in representing the features in paper-work preparation and involving their learners in discussion.

Keywords: Effective teaching/curriculum and instruction; instructional/teaching methods; teacher/teaching development; classroom/teacher observation.

1. INTRODUCTION

The word 'discussion' is common among teachers as it is on street use. Consequently, there is the tendency for many readers to exhibit disinterest or boredom on an article which focuses on discussion. Notwithstanding, just as man is a common specie in space yet the most significant matter in the space, so are some other common phenomena quite relevant in spite of their being common. Discussion is one of such phenomena especially with respect to effective teaching. However, its vitality is not yet adequately realized in classrooms.

Some evidences on the vitality of discussion method in effective teaching could be seen from literature including Brookfield and Preskill (1999), Larson (1999), Kane (2002), McKenzie (2003), Sadker and Sadker (2005), Bloom (2007), Arends (2009), Wiles and Bondi (2011) and Kukuru (2007; 2012). These references show either gaps or inadequacy of interactive mode where discussion is paramount or direct inadequacy of discussion method of teaching. For example Brookfield and Preskill (1999) critically presented discussion method as useful in general teaching endeavours and it on the whole transforms the student. In their contributions Larson (1999) and Arends (2009) presented similar perspectives but disclosed that discussion occurred infrequently in classrooms. Another clear exposition was made by Wiles and Bondi (2011) that imparting information (lecturing which dwells on shallow rather than on deep teaching) had been a practice of teachers. Kukuru (2007; 2012) noted that two words, namely, 'transmission' and 'impart' were commonly used even among educators in Nigeria.

1.1 Statement of the Problem

The above introduction portrays discussion method as vital to effective teaching. However, although educators admit the vitality of discussion method, they do not really practice it in classrooms. Rather, lecture or expository type of teaching had held sway in several

geographical environments of the world. The situation is compounded by scanty empirical researches on the method's features, namely, questioning, listening, and responding, particularly in single researches as would be obvious from literature review. This author's awareness of the inadequacies prompted the title of this research, namely, encouraging representation and involvement of learners on discussion method's features towards ensuring effective teaching.

1.2 Proposed Solution to the Problem

Relevant literature would be reviewed further to provide more solid theoretical background. It seems important to show that the problem has lingered hence references which go back to the 1990s are required in this research. Empirically, considerable number of classroom teachers would be observed as they practically teach and their lessons would be recorded and analyzed to see degrees of representation and involvement of learners on features of discussion method. Appropriate statistical analyses would be affected on the recordings. Results obtained would be presented, interpreted, and discussed; the empirical results would be compared and contrasted with the theoretical findings in the discussion, and conclusion would be drawn.

2. LITERATURE REVIEW

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. The author commented that what makes each of the methods valuable is that learners are actively involved in lessons by learning through activity. Sadker and Sadker (1997) presented new directions for effective teaching in four constructs which were considered fundamental to new research on effective teaching, namely, multiple forms of knowledge, significance of deep rather than shallow teaching, importance of prior knowledge, and social nature of learning. In explaining each of the 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 peculiar to each subject area, are needed. But amount of content details are expected to be reduced to summary so that students 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 the concepts. The teacher should elicit prior knowledge of students through discussion and high cognitive levels questions. When prior knowledge is made explicit, the teacher could help students in linking new information to the prior knowledge or guide them to confront and correct prior knowledge that is not accurate. On social nature of learning, 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.

It is visible that discussion is pivotal in three out of the four constructs for new directions of effective teaching. In a later version of Sadker and Sadker (2005:101-105), there is a slight modification particularly affecting multiple forms of knowledge. Differentiation of instruction is stressed where teachers are asked to carefully consider each student's needs, learning style, life experiences, and readiness to learn. Nonetheless, the modification appears not to reduce the major role of discussion.

If a method is **so pronounced**, the implication is that sufficient attention should be paid to it (Marland, 2002; Alvey (Jr.), 2006; Bloom, 2007). Two main ideas are relevant in the word '**discussion**'. One is to talk about something with another person or a group in order to exchange ideas or decide something. Two is to talk about or write about something in detail and consider different ideas or opinions on it (Woodford and Jackson (Eds.), 2003; Wehmeier (Ed.), 2006; and Summers (Ed.) 2007). Thus discussion connotes doing either thing or both things. It would be observed that whereas the first idea de-emphasizes interaction, the second idea emphasizes interaction. Methodically, discussion goes on through three skills, namely, questioning, listening, (and) responding (Brookfield and Preskill, 1999; Larson, 1999; Biggs, 2003; Pollard et al., 2008; Arends, 2009; Kauchak and Eggen, 2011). The three skills may be termed the main features of discussion which are the **focus** of this research. More systematic review of literature follows.

Brookfield and Preskill (1999) published a 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.

Brookfield and Prieskill (1999) have a key chapter (5) on keeping discussion going through questioning, listening, (and) responding. In chapter six (6), the authors progressed on keeping discussion going through creative grouping. In the two chapters, there are references spanning 1984 and 1998 on the features in a broad form. A **major issue** raised was that discussion requires more time than methods such as lecture and expository. Another issue was that learning to question took the most practice and skill. It was obvious that empirical researches on the reports were not clear and limited and the last date 1998 is old enough for other researches especially empirical investigations. Brookfield and Prieskill (1999) observed that discussion can be done **online**. Benefits of online discussion include later response especially on controversial issues and reduced anxiety for introverts. However, teachers are required to encourage, guide and facilitate online discussion as they do in face to face discussions.

Larson (1999) was an empirical article on influences on social studies teachers' use of classroom discussion. Findings showed that teachers were aware that discussion requires learners' involvement; learners were noted as powerful influence on teachers' actions. Teacher educators should model how to lead discussion; that if teachers were to use discussion method, practice in leading discussion seemed important. Moreover, through classroom discussion, learners might learn to inter-act with others about issues of common interest. Larson (1999) also stated benefits of discussion which are covered by those of Brookfield and Prieskill (1999). Larson observed sadly however, that in spite of its numerous benefits, discussion did not frequently occur in classrooms. It is apparent that Larson (1999) did not dwell on features of discussion method; he or she rather suggested their development and institutionalization.

Situations observable from several other authors are not considerably at variance with those highlighted above. Sadker and Sadker (1997, 2005) are basic and pointed educators' attention to the new directions on effective teaching; Akande (2002) included discussion among activity based methods of teaching which involve learners, and Imogie (2006)'s reference is similar. Kukuru (2006) was a theoretical article; it was informative and ended with suggestions for researches on discussion method. Shulman (2007) indirectly referred to discussion on an exposition that the image of teaching involves exchange of ideas (interaction) between the teacher and learners through questions and probes, answers and reactions and praise and criticism.

Pollard et al. (2008) included discussion as one of four types of class or individual dialogues. Discussion was perceived as exploratory talk where participants explore ideas and feelings together; it makes absolutely fundamental contribution to learning, and is **relevant for learners of all ages**. Studies on the specified features of discussion method, namely, questioning, listening, and responding, in a unit form, were nevertheless wanting. Blankenstein et al. (2009) in a study constituting 70 undergraduate students in small group discussions found that actively providing explanations during a discussion positively affects long-term memory. The finding supports the position that discussion benefits students. The main focus of the study, however: explanations, which represent responding in the fundamental structure, are emphasized while listening is de-emphasized as well as questioning. The current research is rather concerned with all the fundamental features of discussion method. Carrero et al. (2009) is another study which comprised 68 medical students and the finding was that teaching basic life support algorithms by either multimedia presentations or case based discussion equally improves the level of cognitive skills of undergraduate students. The finding also supports observations of authors such as Brookfield and Preskill (1999) and Larson (1999) presented above. Moreover, that the performance of the case based discussion was not significantly lower than that of multimedia presentation underscores the role of a competent human element in interaction hence lends credence to the position of effective teaching specialists that use of multimedia should mainly, be to enhance the role of teachers rather than replace it. However, the study de-emphasizes the structure of discussion which portrays its features. It is the features in all that are the focus of the current research.

Arends (2009) has a chapter (12) on classroom discussion. On a section on overview, the author presented questioning from teachers to learners, from learners to teachers and from learners to learners. Beyond that section, the author stated that patterns of discussion were in three forms, namely, the teacher asking a question about the lesson; next, is response where learners raise their hands and reply; and finally teacher evaluates learners' responses with praise and corrects their responses. With respect to conducting discussion, this author identified five points for **whole class** discussion, namely, clarify aims and establish set, focus the discussion, hold the discussion, end the discussion, (and) debrief the discussion. This author added that discussion can be done **online** with advantages similar to those of Brookfield and Prieskill (1999). Arends (2009) ended the chapter with a negative observation as did Larson (1999) that discussion was not really practiced in classrooms (Arends, 2009: 446). It should be observed that Arends (2009) did not report critically on the features. Role of the teacher in discussion is what is rather pronounced in his or her presentation.

Kauchak and Eggen (2011: Chapter 13) is on instruction in today's schools. The authors underscored involving of learners in lessons through questioning which they observed as the 'most effective tool' for teachers to involve and motivate learners. The authors stressed frequency, equitable distribution, wait time, and prompting with respect to questioning. It may

be remarked that questioning is the key element in the three features as it alerts for listening, and listening for responding. Wiles and Bondi (2011: 150) asserted that teachers should not base their practice on imparting information alone but must help learners learn how to learn. This assertion in a perspective implies assisting learners to be independent. Developing thinking skill through discussion is a good means to achieving that independence. Equally embedded in these authors' assertion is the issue that imparting information had become a practice for teachers. This practice should be consciously discouraged because it only ensures shallow teaching and dwarfs thinking skill of learners.

2.1 Scope and Justification

It may be noted that occurrences on the features of discussion method would roughly be balanced in a situation, if well perceived. A question would send cognitive signal to learners to condition them to listening and thinking, and listening and thinking would elicit responding; the same features should be perceivable even outside classroom. Thus the observation of Brookfield and Preskill (1999) that learning to question took the most practice and skill, suggests bias and imbalance on investigations with respect to features of discussion method. In another perspective however, the bias might have been due to the key role of questioning just highlighted such that it meant discriminately concentrating on the most significant feature. More recent literature such as Sadker and Sadker (2005), Arends (2009), Wiles and Bondi (2011) and Kukuru (2012) directly or indirectly suggest the need to critically investigate discussion as a method. In this article the focus is on the features of discussion, namely, questioning, listening, [and] responding, which portray the systematic process of the word as a method and make it professional. The concern then is to investigate this process and show degrees to which classroom teachers involve their learners as a way of ensuring effective teaching. Combined investigations of all the main features in single researches are scanty in literature hence justification for this research.

2.2 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 classrooms of the teachers?
2. To what degree would the features of discussion method be available in lesson notes/plans of the classroom teachers?
3. What is the expanse to which the features of discussion method would be available in practical presentation of objectives in lessons by the classroom teachers?
3. What is the magnitude to which the features of discussion method would be represented, under methodology, in lesson notes/plans of the classroom teachers?
5. To what magnitude would the classroom teachers involve learners in discussion through its features?

2.3 Research Hypotheses

The following hypotheses were generated for this research.

1. There will be no significant difference between performances of the classroom teachers that would be positive in relation to identification of features of discussion method, namely, questioning, listening, and responding and performances of the classroom teachers that would be negative, in relation to identification of 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 the classroom teachers that would be positive in relation to availability of the features of discussion method and performances of the classroom teachers that would be negative in relation to availability of 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 the classroom teachers that would be positive in relation to availability of the features of discussion method in practical presentation of objectives in lessons and performances of the classroom teachers that would be negative in relation to availability of same features of discussion method, on same presentation, in junior as well as in senior secondary schools.
4. There will be no significant difference between the performances of the classroom teachers that would be positive in relation to representation of the features of discussion method and performances of the classroom teachers that would be negative, in relation to representation of 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 classroom teachers that would be positive in relation to involvement of learners in discussion method and performances of classroom teachers that would be negative, in the same relation, in junior as well as in senior secondary schools.

2.4 Significance of the Study

The literature review above established that empirical researches on the main features of discussion method, namely, questioning, listening, (and) responding, particularly in single researches are limited. This research would reduce the dearth by providing some needed empirical information on the method's features. Consequently, classroom teachers, curriculum researchers, and other educators would find this research of utility to them in their quest for contributions toward societal advancement.

3. RESEARCH METHODOLOGY

This was an observational research where teachers were observed in real classrooms as they interacted with learners. 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. 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. A 'Use of Discussion Method by Classroom Teachers' (UDMCT), developed by the researcher, was the major instrument employed for this research. Its structure was informed by Brookfield and Preskill (1999), Larson (1999), Biggs (2003), Pollard et al. (2008), Arends (2009) and Kauchak and Eggen (2011). Main features of discussion method, namely, questioning, listening, (and) responding, were the factors on which the instrument rested. Supportive information required were: name of school, lesson note/plan whether available or not, subject taught by teacher, topic taught by teacher, and class taught by teacher. Copies of the instrument were produced enough for the required sample of 32 teachers. Two other instruments, namely, Form to obtain demographic data from the participating teachers and Tape Recorder to record each interaction in class served as supplements. All three instruments were used to observe each participating teacher and all observations were conducted by the researcher for the purpose of uniformity in recording. Validity of the instrument was ensured by concurrent validity procedure. The 'Use of Discussion Method by Classroom Teachers' (UDMCT) developed by the researcher, was used by 20 Principals to assess two teachers each from their various secondary schools. The original instrument from which the UDMCT was adapted was simultaneously used by the same Principals to assess the same teachers. The scores of the two instruments that were administered by the 20 Principals were subjected to correlation analysis, which yielded a value of 0.81. This result shows that both instruments are measuring similar traits. A test-retest method of estimating reliability co-efficient was employed by engaging 20 Principals to use the adapted instrument: UDMCT to assess two teachers each from their various secondary schools. Two weeks later, the same Principals administered the instrument to the same teachers. The assessment scores of the 20 Principals at the two different ratings of the 40 teachers were subjected to Pearson Product Moment Correlation analysis. The obtained 'r' (correlation) value was 0.79. This result indicates that the instrument is reliable.

A copy of the major instrument was used to record the features of discussion method as each teacher interacted with his/her learners. The observation lasted as long as that class lasted. Frequency of occurrence of each feature was promptly recorded. Simultaneously, the tape recorder was put on once a class started and recorded the whole **verbal** class interaction until the class ended. The essence of this instrument was to allow for more details or clarity to correct error or ascertain any aspect of the interaction. At the end of each class, a copy of the form for demographic data was handed over to each teacher who filled immediately and returned the form to the researcher. The form requested for the following information: school of teacher, qualification of teacher, area of specialization of teacher, teaching experience of teacher, normal class that the teacher taught, and normal subject that the teacher taught. The last two requirements sought for any differences in classes and subjects taught such that should there be differences, how they could be accommodated in interpretation might be professionally established. The purpose of the form was to confirm prepared works especially on paper of the teachers by those that the teachers filled in the presence of the researcher. To avoid unnatural dispositions of the teachers and learners, preliminary visits were made to the schools and classrooms in the sample. The purpose of the visits was to make the researcher familiar to them geared towards removing artificial interactions. Obtained data were analyzed using frequencies, percentages, and Chi-Square

(X^2) statistics because the nature of the data collected did not suggest more sophisticated analysis or further probing.

4. RESULTS

Results obtained from analyses of data collected follow. On Table 1 below, 'A' implies the summary result for identification of discussion method through its features corresponding to Research Question 1 which asks: To what extent would features of discussion method, namely, questioning, listening and responding be identified in classes of the teachers? The answer is out of the 16 teachers in the junior secondary schools (JSS), 15 had positive results while 1 (one) had negative result. The results show that the features of discussion method could be identified from 15 out of the 16 teachers. In senior secondary schools (SSS), 9 out of the 16 teachers had positive results while 7 had negative results.

'BI' implies the summary for availability of the features of discussion method in lesson notes/plans of the teachers corresponding to Research Question 2 which asks: To what degree would the features of discussion method be available in lesson notes/plans of classroom teachers? The answer is: in JSS, availability was 2 as against 14 for non-availability. In SSS, the figures are the same as those in JSS.

'BII' connotes availability of the features in practical presentation of objectives corresponding to Research Question 3 which asks: What is the expense to which the features of discussion method would be available in practical presentations of objectives in lessons by classroom teachers? The answer is: in JSS, the ratios are 13 to 3 for availability and non-availability respectively. In SSS, the ratios are 5 to 11 for similar comparisons. All the results analyzed above are presented on Table 1.

On Table 2 below, 'A' represents summary on degree of representation of the features of discussion method by teachers under methodology in their lesson notes or plans which corresponds to research question 4 which asks: What is the magnitude to which the features of discussion method would be represented under methodology in lesson notes/plans of the classroom teachers? The answer is: in JSS, 3 out of the 16 teachers represented the features whereas 13 did not. In SSS, 2 teachers represented while 14 did not represent.

'B' on Table 2 represents degree of involvement of learners in discussion method in classes or lessons corresponding to Research Question 5 which asks: To what magnitude would the classroom teachers involve learners in discussion through its features? The answer is: in JSS, 5 teachers involved their learners while 11 teachers did not. In SSS, 1 (one) teacher only, involved learners in discussion method. These results are presented on Table 2.

The five results of the five research questions are further investigated using Chi- Square comparisons and the values are presented on Tables 3a, 3b, 3c, 4a and 4b.

Table 1. Identification as well as availability of discussion method’s features among the classroom teachers in Secondary Schools: JSS & SSS.

Dual Name of School	Individual Name of School	Identification of Discussion method through features				Degree of Availability of Features						Individual Name of School	Identification of Discussion method through features						Degree of Availability of Features					
		Questioning, Listening, Responding				In lesson Note/Plan			Practical Presentation of Objectives				Questioning, Listening, Responding				In lesson Note/Plan			Practical Presentation of objectives				
		All Identifiable	Two Identifiable	One Identifiable	None identifiable	Quite obvious	Fairly obvious	Not obvious	Quite obvious	Fairly obvious	Not obvious		All Identifiable	Two Identifiable	One Identifiable	None identifiable	Quite obvious	Fairly obvious	Not obvious	Quite obvious	Fairly obvious	Not obvious		
OGS	JSS	3	0	0	1	0	1	3	0	3	1	SSS	1	0	0	3	0	0	4	0	1	3		
UCAC	JSS	4	0	0	0	0	0	4	0	4	0	SSS	2	0	0	2	0	2	2	0	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		
ACHS	JSS	4	0	0	0	0	1	3	1	2	1	SSS	4	0	0	0	0	0	4	0	1	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	
Summary		A				B ⁱ			B ⁱⁱ			A				B ⁱ			B ⁱⁱ					
		15	:	1		2	:	14		13	:	3		9	:	7		2	:	14		5	:	11
		PTE	:	NTE		PTE	:	NTE		PTE	:	NTE		PTE	:	NTE		PTE	:	NTE		PTE	:	NTE

Note: PTE means Positive
NTE means Negative



Abbreviations for dual names of secondary schools that participated

OGS means Oyemekun Grammar School, Akure Junior and Senior = two (2) schools.
 UCAC means United C.A.C Grammar School, Aule Road, Akure: Junior and Senior = two (2) schools
 STAS means St. Thomas Anglican Comprehensive High School, off Oke Aro, Akure: Junior and Senior = two (2) schools
 ACHS means Alakure Comprehensive High school, Ijoka, Road, Akure: Junior and Senior = two schools
 Total Number of Schools= Eight (8)

Table 2. Degrees of representation of the features of discussion method under methodology and degrees of involvement of learners in Discussion by the classroom teachers in Junior Secondary Schools (JSS) and Senior Secondary Schools (SSS)

Dual Name of School	Individual Name of School	Degree of Representation of Features under Methodology			Degree of Involvement of Learners in Discussion			Dual Name of School	Individual Name of School	Degree of Representation of Features under Methodology			Degree of Involvement of Learners in Discussion		
		Very well	Fairly well	Not well	Very Actively	Moderately Actively	Not Actively			Very well	Fairly well	Not well	Very Actively	Moderately Actively	Not Actively
OGS	JSS	0	1	3	0	1	3	OGS	SSS	0	0	4	0	0	4
UCAC	JSS	0	0	4	0	0	4	UCAC	SSS	0	1	3	0	1	3
STAS	JSS	0	0	4	1	0	3	STAS	SSS	0	0	4	0	0	4
ACHS	JSS	0	2	2	1	2	1	ACHS	SSS	0	1	3	0	0	4
Total	JSS	0/16	3/16	13/16	2/16	3/16	11/16	Total	SSS	0/16	2/16	14/16	0/16	1/16	15/16
Summary		A 3 : 13 PTE : NTE			B 5 : 11 PTE : NTE					A 2 : 14 PTE : NTE			B 1 : 15 PTE : NTE		

Note: PTE means Positive
NTE means Negative

{ OGS
UCAC
STAS
ACHS }

Abbreviations for dual names of secondary schools that participated

OGS means Oyemekun Grammar School, Akure Junior and Senior = two (2) schools.
UCAC means United C.A.C Grammar School, Aule Road, Akure: Junior and Senior = two (2) schools
STAS means St. Thomas Anglican Comp. High School, off Oke Aro, Akure: Jnr and Snr schls
ACHS means Alakure Comp. High school, Ijoka, Road, Akure: Jnr and Snr = two schools
Total Number of Schools= Eight (8).

Table 3. Chi-Square (X^2) Comparisons of summary results on Table 1. Totals of positive performances compared to totals of negative performances of the classroom teachers in Secondary Schools: JSS & SSS

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

Table 4. Chi- Square (X^2) Comparisons of summary results on Table 2 above: Totals of positive performances compared to totals of negative performances of the classroom teachers in Junior Secondary Schools: JSS and Senior Secondary Schools: SSS

Type of School	Teachers with positive performances	Percentages	Teachers with Negative performances	Percentages	Chi-Square (X^2) Comparison between Positive and Negative Performances	Degree of Freedom	Table Value	Significance Level obtained	Remark
Table 4a. Degree of representation of the features of discussion method under methodology in lesson notes/plans by the classroom 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 the classroom teachers at JSS and SSS levels									
JSS (ii)	5	31	11	69	14.440	1	3.841	.000	Significant
SSS (ii)	1	6	15	94	77.440	1	3.841	.000	ST

The values of the Chi-Square (X^2) comparisons presented above are utilized in testing the hypotheses generated.

4.1 Testing of Hypotheses

The hypotheses generated for this research are tested here-under.

4.1.1 Hypothesis 1

The hypothesis states that there will be no significant difference between the performances of the classroom teachers that would be positive, in relation to identification of features of discussion method, namely, questioning, listening, and responding and performances of the classroom teachers that would be negative on identification of same features of discussion method, in junior as well as in senior secondary schools. 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: $X^2 = 77.440$ 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: $X^2 = 1.440$ where critical value is 3.841.

4.1.2 Hypothesis 2

This hypothesis states that there will be no significant difference between the performances of the classroom teachers that would be positive in relation to availability of the features of discussion method in lesson notes/plans and performances of the classroom teachers that would be negative, in relation to availability of same features in lesson notes/plans, in junior as well as in senior secondary schools. This hypothesis is rejected at both junior and senior secondary schools levels. At the junior secondary school level, the X^2 value is 54.760 at .000 levels of significance. At the senior secondary school level, same indices are incidentally observable: X^2 value is 54.760 at .000 levels of significance.

4.1.3 Hypothesis 3

It states that there will be no significant difference between the performances of the classroom teachers that would be positive in relation to availability of the features of discussion method in practical presentation of objectives (in lessons) and performances of the classroom teachers that would be negative in relation to availability of same features of discussion method, on same presentation, in junior as well as in senior secondary schools. At the junior secondary school level, this hypothesis is rejected: there is a significant difference in favour of class teachers with positive results: $X^2 = 38.440$ at .000 levels of significance. At the senior secondary school level, the hypothesis is also rejected: there is significant difference against classroom teachers with positive performances: $X^2 = 14.440$ at .000 levels of significance.

4.1.4 Hypothesis 4

The hypothesis states that there will be no significant difference between the performances of the classroom teachers that would be positive in relation to representation of the features of discussion method and performances of the classroom teachers that would be negative, in relation to same representation of the features in discussion method, under methodology, in lesson notes/plans, in junior as well as in senior secondary schools. This hypothesis is

rejected at both junior and senior secondary schools levels. At the earlier level, $X^2 = 38.440$ at .000 levels of significance. At the latter level, $X^2 = 54.760$ at .000 levels of significance.

4.1.5 Hypothesis 5

This hypothesis states that there will be no significant difference between the performances of the classroom teachers that would be positive in relation to involvement of learners in discussion method and performances of the classroom teachers that would be negative, in same relation, in junior as well as in senior secondary schools. This hypothesis is rejected at both school levels: X^2 value for junior schools is 14.440 at .000 levels of significance while X^2 value for senior schools is 77.440 at .000 levels of significance.

5. DISCUSSION

Comparison of summary result under hypothesis 1 shows that there is a significant difference in favour of classroom 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 classroom teachers in the junior secondary school involved discussion method more than classroom teachers in the senior secondary school. It should be noted, however, that this is the least qualitative concern, which is a peripheral identification of features of discussion method, namely, questioning, listening, and responding. Findings in the subsequent comparisons would give more qualitative and critical picture.

Under the second comparison, the hypothesis is rejected at both secondary school levels. The implication is that classroom teachers in this sample generally, significantly did not represent the features of discussion method in their lesson notes/plans. Incidentally, the result is the same for both types of secondary school levels. Four (4) classroom teachers only, represented the features in both types of secondary schools while twenty-eight (28) classroom teachers did not represent the features. A finding, following the result of the first comparison is that, the classroom teachers were less effective in representing features of discussion method on paper than verbalizing them practically. This situation suggests in a perspective, that the professional backgrounds of teachers in this sample appeared weak in paper-work preparation. Following the observation of Larson (1999) and Arends (2009) that discussion did not frequently occur in classrooms, 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 and Wiles and Bondi (2011) as well as Kukuru (2007, 2012) observed that imparting information had been a practice of teachers. A model of teaching as telling can hardly go beyond writing-board and talk method which is lecture or expository; the perspective is virtually agreed to by Bloom (2007). Moreover, understanding, which is one of the most cherished goals of teaching (Biggs, 2003; Perkins, 2007), would be wanting in such a model.

In the third comparison, there is a significant difference in favour of classroom teachers with positive results in relation to availability of features of discussion method in practical presentation of objectives in the junior secondary schools. It portrays that the classroom teachers that represented questioning, listening, and responding, in real presentation of objectives were significantly more than classroom teachers that did not represent the features practically. This finding partly supports the comment in the last paragraph that the classroom teachers in this sample were less competent on paper work; they performed

better in real lesson presentations. In the senior secondary schools, reverse is the situation. Classroom teachers that did not represent features of discussion method in real lesson presentations were significantly more than classroom teachers that did represent the features. There seems to be an order from the second findings situation to that of third situation: there is a decrease in discussion in the third situation, that is, classroom teachers in SSS were less willing to use discussion in practical presentation of objectives than classroom teachers in JSS. Perhaps, such classroom teachers felt that more advanced learners require less discussion than less advanced learners. While that view 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; Sadker and Sadker, 2005; Pollard et al., 2008; Blankenstein et. al., 2009; Carrero et al., 2009; Arends, 2009; Kauchak and Eggen, 2011).

Significant differences are observable in the fourth comparison at both school levels. It implies that the classroom teachers in both JSS and SSS 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 classroom teachers in this sample performed less effectively on paper work compared to practical teaching in classrooms. It may be noted that an order of development is movement from theory to practice (Akande, 2002; Tanner and Tanner, 2007; Wiles and Bondi, 2011). Thus it is inadequate foundation if a teacher training programme is weak in paper- work preparation. Besides the need for paper-work 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 an unavoidable circumstance and 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 secondary school levels (JSS, SSS) in the final comparison. It connotes that a significantly greater number of the classroom teachers in the secondary schools **did not** involve learners in discussion. Table 4 above shows that 6 (six) classroom teachers only, involved learners in discussion whereas 26 (twenty six) classroom teachers did not. Furthermore, Tables 2 and 5 (above and below respectively) show that two classroom teachers only, *actively involved* learners in discussion. This finding agrees with those of Larson (1999) and Arends (2009) that discussion did not frequently occur in classrooms during lesson presentations. 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 and in related observations by Wiles and Bondi (2011) and Kukururu (2007; 2012) that imparting information had been a tradition of teachers. Yet several educators including Akande (2002), Sadker and Sadker (2005), Shulman (2007), Perkins (2007), Pollard et al. (2008) and Kauchak and Eggen (2011) stressed that teaching involves exchange of ideas.

Table 5. Comments on interaction of the classroom teachers with learners at a glance

Serial number	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 three 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 by researcher.

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

Total of Negative cases = 26, Total of Positive cases = 6 (2+2 + 2) = 81%: 19%; χ^2 .

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

6. CONCLUSION

This research focused on extent to which features of discussion method, namely, questioning, listening, (and) responding would be represented by classroom teachers and degree to which the teachers would involve learners in discussion. Appropriate investigative procedures were empirically complied with and data were obtained and analyzed. Results showed that the features of discussion method were identifiable from most of the teachers which implied that the teachers were aware of discussion as a method. In another aspect, namely, practical presentation of objectives, the teachers in the junior secondary schools (JSS) performed adequately well. The teachers in both types of school: JSS and SSS (senior secondary schools) however, generally performed inadequately in representing the

features of discussion method on paper-work preparation and in involving their learners in discussion.

7. RECOMMENDATIONS

Following are major recommendations that are meant to help reduce the inadequacies identified from the findings.

1. Classroom 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 classroom teacher and supervisor of any type or researcher, evidence of competence. 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.
2. Extent of representation and involvement of learners on discussion method's features should be increased in view of the ascribed role of discussion method 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 considerable role in multiple forms of knowledge especially in social science disciplines where reflection/critical scrutiny of issues is a focus.
3. In-service training programmes in form of short-term courses, conferences, seminars, and workshops, could be organized for service teachers, to fill current vacuum in good paper – work preparation.
4. This research may be replicated in other populations of Ondo state, Nigeria, and beyond for comparative data generation and provision of additional empirical findings on representation and involvement of learners on discussion method's features by classroom teachers.

CONSENT

Consents of all the Principals, classroom teachers, and student bodies in the secondary schools that participated were sought initially through formal introductory letter from the author's Head of Department to them. Later the author as researcher visited each school and interacted with each Principal, classroom teacher, and student body before the final visits when interactions were recorded.

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COMPETING INTERESTS

Author has declared that no competing interests exist.

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