This article is on discouraging imparting information by underscoring balanced dimensions of discussion method. Balanced empirical investigations on dimensions of discussion method were uncommon, available investigations focused on one dimension, and the inadequacies were not peculiar to a human ecology but universal. Twelve classroom teachers selected from six secondary schools, in eastern section of Akure, capital of Ondo State, Nigeria, participated in the research. Main instrument for data collection was ‘Performances of class teachers on dimensions of discussion method through its features’. The dimensions are: use by teachers to learners, use by learners to teachers, and use by learners to learners, and the features are: questioning, listening, (and) responding. Two other instruments comprised form to obtain demographic data from the participating teachers and tape recorder to record each lesson. Main method of data collection was observation of each teacher in lesson. A copy of the major instrument was used to record frequencies of occurrence of each of the features of discussion method under the dimensions. The demographic data form was filled by each teacher after each lesson. The tape recorder was put on once a class commenced, to record the whole lesson and was put off at the end of each lesson. Analyses of obtained data showed that the classroom teachers performed considerably well in one dimension: use (of the features) by teachers to learners but performed not considerably well in the other dimensions: use of the features by learners to teachers and use of the features by learners to learners. A number of recommendations are made to improve on inadequate performances including, in-service training programmes, conferences, seminars, workshops for service teachers; and increasing stress on dimensions of discussion method in teacher training packages.

Keywords. Teaching/Instructional Methods/Methodology, Pedagogy, Teaching and Learning, Curriculum and Instruction, Effective Teaching/Inter-action.

INTRODUCTION

Discussion as a word is common in human verbalization; even among educators the word is common. Common phenomena tend to be so sometimes due to vitality rather than the reverse such as air which is so vital that without it, life would cease to exist within limited number of minutes. While that of discussion is not quite as extreme as air is to life, discussion is considerably vital to effective teaching.

Educators are required to possess in-depth and critical enough rather than smattering knowledge on discussion. Especially with the addition of the word ‘method’ hence discussion method, the issue of specialization becomes underscored on the ground that method connotes specified and usually technical procedure in producing or executing something. Besides, in academics/research, assumptions are not respectable due to their unreliability. Thus adequate knowledge on the process of discussion method as well as availability of sufficient empirical researches on it, are vital to educators. However, as would be shown in this article, many educators including curriculum experts are yet to sufficiently exploit the benefits in discussion to ensure effective teaching.

Literature Review

A germane issue in education was stressed by Imogie
IV. Social nature of learning.

III. Importance of prior knowledge;

process, the teacher empowers students to interact with
discussions, group work, debates, and dialogues. In the
guide or facilitator that is skillful in conducting
(Ed.)(2006), and Summers (Ed.)(2007) presented
discussion. What is discussion?
life experiences, and readiness to learn. Nonetheless, the
modification appears not to dilute the major role of
discussion. What is discussion?

Sadker and Sadker (1997:69-72) wrote on new directions
on effective teaching. The authors presented four
constructs as essential to the new research on effective
Teaching, which are:

I. Multiple forms of knowledge;

II. Significance of deep rather than shallow

III. Importance of prior knowledge;

IV. Social nature of learning.

While explaining each of these constructs, a teaching
method emerged as indispensable to effective teaching,
namely, discussion method. Only in multiple forms of
knowledge, is the method not quite conspicuous because
in it, content specific teaching skills are required. Even
on this construct, discussion would play special role in
social science based disciplines. Aside from this,
discussion is prominent in the remaining three constructs
in the new direction on effective teaching. 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. Along this
perspective, it may be noted that coverage is the worst
enemy of understanding (Nelson 1998; Biggs 2003: 46,
asserted that the teacher should elicit it from students
through discussion and high cognitive levels questions,
such that students link new information to prior
knowledge or guide them to confront and correct prior
knowledge that might not be 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 the
process, the teacher empowers students to interact with
each other. In the 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 dilute the major role of
discussion. What is discussion?

Woodford and Jackson (Eds.)(2003), Wehmeier
(Ed.)(2006), and Summers (Ed.)(2007) presented
discussion as containing two main ideas (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 opinions about it. Consequently, discussion
implies one idea or both ideas. Essentially, discussion
process is identifiable by three skills, namely,
questioning, listening, (and) responding (Brookfield
andPreskill 1999:68; Larson 1999; Biggs 2003:83-84;
Pollard et al. 2008; Arends 2009; Kauchakand Eggen
2011). These skills may be called the main features of
discussion process. It should be noted that professionally
(in teaching), these main features may summarize be
observable or exercised through definite dimensions in
classroom namely (i) use by teachers to learners (ii) use
by learners to teachers (iii) use by learners to learners.
Thus an interaction that involves all the three dimensions
or at least one of them in considerable frequencies may
be termed discussion to a degree.

It is vital to stress that a competent teacher is
responsible for guiding/preparing learners not only on the
process of answering questions from a teacher, but also
on freely asking questions from a teacher as well as from
among themselves in the classroom while the teacher
acts as facilitator (Shulman 2007; Ayeni 2007;
McNergney and McNergney 2007; Orluwe and Essien
2010; and Kauchakand Eggen 2011).

Statement of the Problem

From the above introduction and especially the literature
review below, it is obvious that educators are aware of
the significance of discussion method. But critical
researches on its dimensions (questioning, listening, and
responding, from teachers to learners, from learners to
teachers, and from learners to learners) are generally far
fetched. Most information from the literature is theoretical
and limited empirical aspect had been general rather than
dwelling on its dimensions. Moreover, indirect statements
on dimensions had focused on one dimension, namely,
use of the features from teachers to learners. The
situations are not peculiar to Nigeria or Africa but global.
There is accordingly a dearth of empirical researches on
the dimensions of discussion method. Consciousness of
that dearth informed the title of this research: discouraging
imparting information by underscoring balanced dimensions of discussion method.

Proposed Solution to the Problem

Acceptable number of class teachers would be observed
as they practically teach learners. Recordings made from
the observations would be analyzed to ascertain degrees
of performances of the classroom teachers in the
dimensions of discussion method, namely, use of
features (questioning, listening, [and] responding) by
teachers to learners, use by learners to teachers, [and] use by learners to learners. Suitable statistical analyses would be affected on data that would be generated. Obtained results would be presented, interpreted, discussed, and conclusion would be drawn. Meanwhile, a more systematic review of literature is required.

Brookfield and Preskill (1999) is on discussion as a way of teaching. The authors' position is that discussion is a cardinal aspect of democratic education and they presented 15 benefits of the method. A few of them may suffice here: discussion helps students to explore diverse perspectives; intellectual agility of students is increased; students are affirmed as co-constructors (co-creators) of knowledge; the capacity for clear communication of ideas and meaning is developed in the process; skills of synthesis and integration are developed; and discussion leads to transformation. Brookfield and Preskill (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 especially on page sixty eight. However, what inter-actions emerged from teachers to learners, from learners to teachers, and from learners to learners (on the dimensions), are not critically reported. Thus their writings seem to be more of theory and recent empirical findings on the dimensions are required. A major issue raised was that discussion takes time.

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, practice in leading discussion seemed important. Moreover, through classroom discussion, learners might learn to inter-action with others about issues of common interest. Larson (1999) also stated benefits of discussion which agreed with those of Brookfield and Preskill (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 either features or dimensions of discussion method; he or she rather suggested their development and institutionalization.

Situations discernible from several other authors are not quite at variance. Sadker and Sadker (1997, 2005) are basic and theoretical, pointing attention to the new directions on effective teaching; Akande (2002) included discussion among activity based methods of teaching which involves learners, and Imogie (2006)'s reference is similar. Kukuru (2006) was a theoretical article and seems to have been inspired by the emergent picture of discussion on the new directions on effective teaching. It was informative and ended with suggestions for researches on discussion method. Shulman (2007) indirectly referred to discussion on the theoretical exposition that the image of teaching involves exchange of ideas (inter-action) between the teacher and learners through questions and probes, answers and re-actions, 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. Arends (2009) has a chapter (12) on classroom discussion. On a section on overview, the author made statements which hinge on the three dimensions that are a focus in this research, namely, 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 as stated here-under:

Clarify aims and establish set: Teacher goes over the aims for the discussion, gains learners' attention, and gets them ready for participation.

Focus the discussion: Teacher provides a focus for discussion by describing ground rules, asking an initial question, presenting a puzzling situation, or describing a discussion issue.

Hold the discussion: Teacher monitors learners' inter-actions, asks questions, listens to ideas, responds to ideas, enforces the ground rules, keeps records of the discussion, and airs own views.

End the discussion: Teacher helps bring the discussion to a close by summarizing or expressing the meaning that the discussion had on him or her.

Debrief the discussion: Teacher asks learners to evaluate their thinking skills and the effect that the discussion had on them.

This author added that discussion can be done online with advantages such as possibility of later response after better thinking and engaging more freely on controversial topics. However, teachers are required to encourage, guide, and facilitate online discussion as they do in face to face discussions; Brookfield and Preskill (1999) presented similar perspectives. Arends (2009)
ended the chapter on a sad note as did Larson (1999): whereas most teachers admitted that discussion was vital, classroom observers ‘year after year’ reported that discussion was not really practiced in classes (Arends 2009). It should be observed that Arends (2009) did not report critically on the features while he or she was not focused on the dimensions which are essential to meaningful inter-action. Role of the teacher in discussion is what is rather pronounced in this presentation.

Kauchak and Eggen (2011) is on instruction in today’s schools. Although focus on discussion is not stated, 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, 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. Not only should teachers teach learners on how to inter-act by answering questions from teachers, teachers should equally groom learners on feely asking questions from teachers as well as from among themselves.

It may be noted that occurrences on the features of discussion method are roughly balanced in a situation, but same conditions do not apply with respect to the dimensions. A question would send cognitive signal to learners to listening and thinking, and listening and thinking would elicit responding. Significant variations are rather in the dimensions than in the features then. How many of the dimensions would be adequately utilized in classrooms during the teaching-learning situation? Of course fundamentally, what are the frequencies of the very features? Without them the dimensions would be non-issues. From the fore-going review, although not on the periphery, it may be adduced that the dimension of use of the features by teachers to learners is most frequent, followed by use by learners to teachers, and finally use by learners to learners.

Scope and Justification for this Research

This research focuses on all the three main dimensions of discussion method, namely use of features (questioning, listening, and responding) by teachers to learners, use by learners to teachers, and use by learners to learners. Thus it investigates what discussion method is empirically in a single attempt. It has been shown above that, empirical researches on this degree of complexity are far-fetched. Moreover indirect mention of the dimensions had focused on one dimension, namely, use of features by teachers to learners. These two gaps (situations) are not limited to a human ecology but universal hence the need for this research.

The aim of this research was to answer the following questions:

1a. What would be the frequencies of use of discussion method’s features (questioning, listening, and responding) under its dimensions, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, in junior secondary schools?

1b. What would be the frequencies of use of discussion method’s features (questioning, listening, and responding) under its dimensions, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, in senior secondary schools?

2. In how many dimensions of discussion method, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, can considerable frequencies of occurrence of the features (questioning, listening, and responding) be established in the two types of secondary schools combined?

The aim of this research was to test the following hypotheses:

1a. There will be no significant differences between the frequencies of use of discussion method’s features (questioning, listening, and responding) under its dimensions, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, in junior secondary schools.

1b. There will be no significant differences between the frequencies of use of discussion method’s features (questioning, listening, and responding) under its dimensions, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, in senior secondary schools.

2. There will be no significant difference between the number of dimensions where considerable frequencies of occurrence of the features (questioning, listening, and responding) would be established and the number of dimensions where considerable frequencies of occurrence of the features would not be established on discussion method, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, in the two types of secondary schools combined.
Significance of the Study

Sequel to the literature review, it has been established that critical empirical researches on dimensions of discussion method are generally limited. This research will provide some information that would reduce the dearth and be useful on the dimensions to classroom teachers and their supervisors, curriculum researchers, and other educators. The summary import of this research would be on efforts toward improving effective teaching by enhancing deeper understanding of phenomena and thinking through increased stress on dimensions of discussion method rather than on imparting information which underscores shallow teaching and dwarfs thinking of learners.

RESEARCH METHODOLOGY

It was mix method and notes of observer for detailing. All secondary school teachers in eastern section of Akure, capital of Ondo State of Nigeria, formed the population of this research. Six (6) secondary schools: three (3) junior and three (3) senior, selected from the identified population, participated in the research. Twelve (12) class teachers selected using non-probability quota sampling technique: two (2) from each of the six secondary schools, participated in the research. The teachers were selected following their teaching subjects. Teaching subjects of interest in the junior secondary schools were Social Studies and Christian Religious Knowledge (CRK) while Economics and Geography were the subjects of interest in the senior secondary schools.

Three instruments were used to obtain data in this research.

1) A simple Performances of Class Teachers on Dimensions of Discussion Method (PCTDDM) through its main features formed the major instrument. The main features are three, namely, questioning, listening, (and) responding. These features were informed by Larson (1999), Brookfield and Preskill (1999), Biggs (2003), Sadker and Sadker (2005), Pollard et al. (2008), Arens (2009), and Kauchak and Eggen (2011). The features were put under each of the dimensions (i) use by teachers to learners (ii) use by learners to teachers (iii) use by learners to learners. Supportive data required were particulars of each class observed which amounted to eight namely, school of teacher, qualification of teacher, area of specialization of teacher, teaching experience of teacher, subject taught by teacher, class taught by teacher, topic taught by teacher, and duration of class. The last section had two columns on comments made during observation by observer and evidence from lesson note/plan of teacher.

2) Form to obtain demographic data from teachers that were observed. This form had four of the eight supportive data, namely, school of teacher, qualification of teacher, area of specialization of teacher, teaching experience of teacher, and two others: the normal class (level) that the teacher used to teach normal subject that the teacher used to teach. The last two data sought whether there were differences in classes and subjects taught and if there were, how such differences could be accommodated in interpretation. On the whole, the purpose of the form was to confirm what the Observer saw stated by each teacher prior to the class in lesson preparation an what each teacher directly filled for the Observer at the end of each class.

3) Tape recorder to record each lesson. The purpose was to be able to play any section for more details, clarification, or confirmation of any recorded information to avoid error.

Validity of the instrument was ensured through concurrent validity procedure. The Performances of Class Teachers on Dimensions of Discussion Method (PCTDDM), 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 PCTDDM 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 implies that both instruments measured similar traits. A test-retest method of estimating reliability coefficient was employed by engaging 20 Principals to use the adapted instrument to assess two teachers each from their various secondary schools. Two weeks after, the same Principals administered the instrument to the same teachers. The assessment scores of the 20 Principals in 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 implies that the instrument is reliable.

The three instruments were used to obtain data by the researcher as follows:

A copy of paper containing the main instrument was used for each teacher. Frequencies of occurrence of the three main features of discussion were recorded for each of the three dimensions of discussion method: use by teachers to learners, use by learners to teachers, (and) use by learners to learners. Comments were made and observable evidences were sought from lesson notes/plans of the teachers.

A copy of the demographic data form was handed over to each class teacher after the lesson. Each teacher filled
Table 1. Performances of class teachers on dimensions of discussion method in Junior Secondary Schools (JSS)

<table>
<thead>
<tr>
<th>Dual name of School</th>
<th>Individual Name of School</th>
<th>Frequency of occurrence (F.O)</th>
<th>Use by Teachers to Learners</th>
<th>Use by Learners to Teachers</th>
<th>Use by Learners to Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Questioning</td>
<td>Listening</td>
<td>Responding</td>
<td>Questioning</td>
</tr>
<tr>
<td>FGSS</td>
<td>JSS</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>ACCHS</td>
<td>JSS</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>IHS</td>
<td>JSS</td>
<td>13</td>
<td>6</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>JSS</td>
<td>34</td>
<td>34</td>
<td>34</td>
<td>1</td>
</tr>
</tbody>
</table>

Common Totals in Comparisons per Dimension

- JSS 34 1 0

i. The teachers were specifically informed to prepare and present their lessons based on discussion method.

ii. FGSS, ACCHS, and IHS are abbreviations for names of Secondary Schools that participated.

FGSS - Fiwasaye Girls Secondary School: Junior and Senior, Akure, Ondo State, Nigeria

ACCHS - African Church Comprehensive High School: Junior and Senior, Akure, Ondo State, Nigeria

IHS - Ijapo High School: Junior and Senior, Akure, Ondo State, Nigeria

PRESENTATION OF RESULTS

Results obtained from analyses of data collected are presented here-under. Two groups of schools: junior secondary schools (JSS) and senior secondary schools (SSS) could be seen on Table 1 and Table 2. Three secondary schools, namely, Fiwasaye Girls’ Secondary School, African Church Comprehensive High School, and Ijapo High School, all in Akure, Ondo State of Nigeria which participated, had both types of secondary schools. The three dimensions of discussion method, namely, use of the main features (questioning, listening, and responding) by teachers to learners, use of the features by learners to teachers, and use of the features by learners to learners, are inserted on top of each group of school while the main features (stated above) are inserted under each of the dimensions. Total recordings of observations are recorded for each feature under each dimension for each school and for each group of school. The two results per group of school implies that two teachers were observed in each group of school hence six (6) teachers in JSS as well as six (6) teachers in SSS were observed. Finally, the common total results of the features under the

I. and returned form to the researcher. The information was to partly supply required data for the particulars of each class.

II. The tape recorder was put on once a class started, to record the whole class process and was put off at the end of each class.

All observations were carried out by the researcher to ensure uniformity in recording. In an observational research, there is the problem of artificial behaviour on emergence of an unfamiliar visitor to a class. But the means of moderating this problem is by making prior visits to the schools and classes and such visits were discriminately executed before the visits for recording.

Frequencies, percentages, and Chi-Square ($X^2$) statistics were used to analyze the data obtained because the nature of the data obtained seemed not to require more sophisticated analysis or further probing.
Table 2. Performances of class teachers on dimensions of discussion method in Senior Secondary Schools (SSS)

<table>
<thead>
<tr>
<th>Dual name of School</th>
<th>Individual Name of School</th>
<th>Use by Teachers to Learners</th>
<th>Use by Learners to Teachers</th>
<th>Use by Learners to Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Questioning</td>
<td>Listening</td>
<td>Responding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Frequency of occurrence (F.O)</td>
<td>F.O</td>
<td>F.O</td>
</tr>
<tr>
<td>FGSS</td>
<td>SSS</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ACCHS</td>
<td>SSS</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>IHS</td>
<td>SSS</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Totals</td>
<td>SSS</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

Common Totals in Comparisons per Dimension

SSS 31 0 0

i. The teachers were specifically informed to prepare and present their lessons based on discussion method.
ii. FGSS, ACCHS, and IHS are abbreviations for names of Secondary Schools that participated.
FGSS - Fiwasaye Girls Secondary School: Junior and Senior, Akure, Ondo State, Nigeria
ACCHS - African Church Comprehensive High School: Junior and Senior, Akure, Ondo State, Nigeria
IHS - Ijapo High School: Junior and Senior, Akure, Ondo State, Nigeria.

Dimensions are thirty four (34) for use of the features by teachers to learners, one (1) for use of the features by learners to teachers, and zero (0) for use of the features by learners to learners in JSS. In SSS, corresponding figures are thirty one (31), zero (0), and zero (0).

The above stated results are presented on Table 1 for JSS and Table 2 for SSS. Whereas Tables 1 and 2 display fundamental analyses, all other analyses on Tables 3a, 3b, 3c, 4a, 4b, 4c, and 5 are drawn from Tables 1 and 2 in order to discriminately present results by research questions and to test the hypotheses generated.

Answering of Research Questions

Research question 1a

The question asks: What would be the frequencies of use of discussion method's features (questioning, listening, and responding) under its dimensions, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners. The Tables show Chi-Square comparisons on the three dimensions of discussion method, namely, use of the features (questioning, listening, and responding) by teachers to learners, use of the features by learners to teachers, and use of the features by learners to learners. At the moment answering of research question 1a is more contiguos and the raw scores under each dimension only are required hence the answer is: the frequencies of use of discussion method's features under its dimensions in JSS are: thirty four (34) for use of
Table 3a. Frequencies of use of discussion method’s features under use by teachers to learners, compared to use by learners to teachers, in Junior Secondary School (JSS)

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Use by Teachers to learners (UBTL)</th>
<th>Percentage of UBTL</th>
<th>Use by Learners to Teachers (UBLT)</th>
<th>Percentage of UBLT</th>
<th>$X^2$</th>
<th>Degree of freedom</th>
<th>Significance Level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSS</td>
<td>34</td>
<td>97</td>
<td>1</td>
<td>3</td>
<td>88.360</td>
<td>1</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table 3b. Frequencies of use of discussion method’s features under use by teachers to Learners, compared to use by learners to learners, in Junior Secondary School (JSS)

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Use by Teachers to learners (UBTL)</th>
<th>Percentage of UBTL</th>
<th>Use by Learners to Learners (UBLL)</th>
<th>Percentage of UBLL</th>
<th>$X^2$</th>
<th>Degree of freedom</th>
<th>Significance Level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSS</td>
<td>34</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>Incomparable figures but apparently perfectly significant in favour of UBTL</td>
</tr>
</tbody>
</table>

Table 3c. Frequencies of use of discussion method’s features, under use by learners to teachers, compared to use by learners to learners, in Junior Secondary School (JSS)

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Use by Teachers to learners (UBTL)</th>
<th>Percentage of UBTL</th>
<th>Use by Learners to Learners (UBLL)</th>
<th>Percentage of UBLL</th>
<th>$X^2$</th>
<th>Degree of freedom</th>
<th>Significance Level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSS</td>
<td>1</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>Incomparable figures but apparently perfectly significant in favour of UBTL</td>
</tr>
</tbody>
</table>

the features by teachers to learners, one (1) for use of the features by learners to teachers, [and] zero (0) for use of the features by learners to learners.

Research question 1b

The question asks: What would be the frequencies of use of discussion method’s features (questioning, listening, and responding) under its dimensions, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, in senior secondary schools? Tables 4a, 4b, and 4c show Chi-Square comparisons on the three dimensions of discussion method, namely, use of the features (questioning, listening, [and] responding) by teachers to learners, use of the features by learners to teachers, [and] use of the features by learners to learners. The Tables are useful for two main reasons. The one is for testing hypothesis 1b and the other is for answering research question 1b. At the moment answering of research question 1b is more contiguous and the raw scores under each dimension only are required hence the answer is: the frequencies of use of discussion method’s features under its dimensions in SSS are: thirty one (31) for use of the features by teachers to learners, zero (0) for use of the features by learners to teachers, [and] zero (0) for use of the features by learners to learners.

Research question 2

In how many dimensions of discussion method, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, can considerable frequencies of occurrence of the features (questioning, listening, and responding) be established in the two types of secondary schools combined? Findings under Tables 1 and Table 2, Table 3a, 3b, 3c and 4a, 4b, and 4c show the following frequencies of occurrence: 34: 1: 0 for JSS and 31: 0: 0 for SSS. These ratios imply thirty four frequencies of occurrence for use by teachers to learners, one frequency of occurrence for use by learners to teachers, and zero frequency of occurrence for use by learners to learners in JSSS. In SSS, the situation is thirty one frequencies of occurrence for use by teachers to learners, and no frequency of occurrence for both use by learners to teachers and use by learners to learners. It is apparent then that considerable frequencies of occurrence are established only for use by teachers to learners because even by
Table 4a. Frequencies of use of discussion method’s features, under use by teachers to learners, compared to use by learners to teachers, in Senior Secondary School (SSS)

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Use by Teachers to learners (UBTL)</th>
<th>Percentage of UBTL</th>
<th>Use by Learners Teachers (UBLT)</th>
<th>Percentage of UBLT</th>
<th>X²</th>
<th>Degree of freedom</th>
<th>Significance Level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSS</td>
<td>31</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>Incomparable figures but apparently perfectly significant in favour of UBTL</td>
</tr>
</tbody>
</table>

Table 4b. Frequencies of use of discussion method’s features under use by teachers to Learners, compared to use by learners to learners, in Senior Secondary School (SSS)

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Use by Teachers to learners (UBTL)</th>
<th>Percentage of UBTL</th>
<th>Use by Learners to Learners (UBLL)</th>
<th>Percentage of UBLL</th>
<th>X²</th>
<th>Degree of freedom</th>
<th>Significance Level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSS</td>
<td>31</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>Incomparable figures but apparently perfectly significant in favour of UBTL</td>
</tr>
</tbody>
</table>

Table 4c. Frequencies of use of discussion method’s features, under use by learners to teachers, compared to use by learners to learners, in Senior Secondary School (SSS)

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Use by Teachers to learners (UBTL)</th>
<th>Percentage of UBTL</th>
<th>Use by Learners to Learners (UBLL)</th>
<th>Percentage of UBLL</th>
<th>X²</th>
<th>Degree of freedom</th>
<th>Significance Level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>Same score of zero in both cases: perfectly negative</td>
</tr>
</tbody>
</table>

definition, frequency connotes numerous occurrence. Whereas use by teachers to learners had numerous occurrences in both types of secondary schools, the other dimensions namely, use by learners to teachers and use by learners to learners had only one occurrence in JSS and no occurrence at all in SSS. Consequently the ratio is 1:2 (1/3 and 2/3 respectively) on dimensions where considerable frequencies of occurrence can be established in the two types of secondary schools combined. This result is presented on table 5.

As indicated above, the results on Tables Table 3a, 3b, 3c, 4a, 4b, 4c, and 5 are used in testing the generated hypotheses below.

Testing of Hypotheses

The generated hypotheses are tested here-under.

**Hypothesis 1a**

This hypothesis states that there will be no significant differences between the frequencies of use of discussion method’s features (questioning, listening, and responding) under its dimensions, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners in junior secondary schools. Tables Table 3a, 3b, and 3c provide data to test this hypothesis. On Table Table 3a, there is a significant difference in the comparison between the two dimensions, namely, use by teachers to learners and use by learners to teachers. The Chi-Square (X²) is 88.360 at 0.000 levels of significance. This significant difference is in favour of use by teachers to learners. Situation on Table 3b displays peculiarity: use by learners to teachers is 100% while use by learners to learners is zero percent. Although statistically incomparable, the obvious inference is a perfectly significant level in favour of use by learners to teachers. Situation on Table 3b is similar to that of 3c and it is in favour of use by teachers to learners against use by learners to learners. Thus both comparisons against use by learners to learners are significant against it. Next, use by teachers to learners is significant against use by learners to teachers. It follows that there are significant differences between the frequencies of use of discussion method’s features under its dimensions, namely use by teachers to learners, use by learners to teachers, and use by learners to learners in senior secondary schools. Consequently hypothesis 1a is rejected.

**Hypothesis 1b**

The hypothesis states that there will be no significant differences between the frequencies of use of discussion
method’s features (questioning, listening, and responding) under its dimensions, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, in senior secondary schools. Tables 4a, 4b, and 4c provide data to test this hypothesis. The comparisons on Tables 4a and 4b have similar results; they are on use by teachers to learners compared to use by learners to learners, and use by teachers to learners compared to use by learners to learners. Although both data are statistically incomparable, the results are obvious perfect significant situations from use by teachers to learners on the one hand, against use by learners to teachers and use by learners to learners, with both of the latter group having same zero percent. The situation is represented on Table 4c. This finding implies that use by teachers to learners is significant against both use by learners to teachers and use by learners to learners. Consequently hypothesis 1b is rejected.

**Hypothesis 2**

The hypothesis states that there will be no significant difference between the number of dimensions where considerable frequencies of occurrence of the features (questioning, listening, and responding) would be established and the number of dimensions where considerable frequencies of occurrence of the features would not be established on the dimensions of discussion method, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, in the two types of secondary schools combined. Table 5 provides data to test this hypothesis. The Chi-Square ($X^2$) of the comparison is 11.560 at 0.001 levels of significance. It implies that there is a significant difference between the number of dimensions where considerable frequencies of occurrence of features are established and the number of dimensions where considerable frequencies of occurrence of the features cannot be established on dimensions of discussion method, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners in the two types of secondary schools combined. Consequently hypothesis 2 is rejected.

### Table 5. Chi-Square ($X^2$) comparison between number of dimensions of considerable and non-considerable frequencies of occurrence of features of discussion method, in the two types of secondary schools combined.

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Considerable Frequencies of Occurrence Established (CFOE)</th>
<th>Percentage of CFOE</th>
<th>Considerable Frequencies of Occurrence not Established (CFONE)</th>
<th>Percentage of CFONE</th>
<th>$X^2$</th>
<th>Degree of freedom</th>
<th>Significance Level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSS + SSS</td>
<td>1</td>
<td>33</td>
<td>2</td>
<td>67</td>
<td>11.560</td>
<td>1</td>
<td>0.001</td>
<td>Significant</td>
</tr>
</tbody>
</table>

**DISCUSSION**

Summary on testing of hypothesis 1a is that use of features of discussion method (questioning, listening, and responding) by teachers to learners in junior secondary schools (JSS) was significantly different from both use by learners to teachers and learners to learners. Moreover, use by learners to teachers was significantly different from use by learners to learners. These situations are supported by the conclusions under literature review. The findings suggest that the learners seemed not to have got orientation towards asking questions from each other through the guidance of teachers. Even use by learners to teachers occurred only once hence the significant difference that it had over use by learners to learners is a bloated case on the basis that the latter had zero occurrence. Accordingly it appears not wrong to state that the learners were equally not adequately oriented toward asking their teachers questions. A picture perceivable is teachers dominated classes. On the other hand, it depicts degree of independence of the learners in classes in relation to their teachers and in relation to each other. Perhaps the guiding disposition of teachers particularly in a curriculum based educational system (Biggs 2003; Sadker and Sadker 2005; Shulman 2007; McNerney and McNerney 2007; and Kauchak and Eggen 2011) is fundamentally responsible. Nevertheless, there is need for increased occurrences of questioning, listening, and responding from learners to teachers and from learners to learners, toward balancing and improving discussion as hinted by Wiles and Bondi (2011).

Summary under testing of hypothesis 1b is that use of features of discussion method (questioning, listening, and responding) by teachers to learners in senior secondary schools (SSS) is significantly different from use by learners to teachers and use by learners to learners. This situation seems not quite different from that of JSS except the once occurrence of use by learners to teachers where SSS had zero occurrence. In effect, it may be stated that the learners appeared deficient in both uses: toward their teachers and toward each other. Again the teacher dominated situation is obvious as well as limited extent of independence of the learners. The picture under literature review is here also supported by these situations (Arends 2009; Kauchak and Eggen 2011).
Wiles and Bondi (2011) indirectly underscored the significance of learners’ independence by developing their thinking skills; that development is vital to them as individuals and society generally. Learners should be adequately groomed on freedom in the classroom and on the process of asking questions from their teachers as well as from among themselves while the teacher facilitates the inter-action.

Finding under testing of hypothesis 2 is that there is a significant difference between the number of dimensions where considerable frequencies of occurrence of features (questioning, listening, and responding) are established and number of dimensions where considerable frequencies of occurrence of features cannot be established on discussion method, namely, use by teachers to learners, use by learners to teachers, and use by learners to learners, in the two types of secondary schools combined. Under presentation of results (under Research question 2), it was observed that whereas use by teachers to learners had numerous occurrence in both types of secondary schools (34 and 31 in JSS and SSS respectively), the other two dimensions, namely, use by learners to teachers and use by learners to learners had one occurrence only in JSS and no occurrence at all in SSS. Simple comparison is 1 to 2 (1/3 to 2/3 respectively), that is for dimensions where considerable frequencies of occurrence of features can be established and dimensions where considerable frequencies of occurrence cannot be established on dimensions of discussion method. This finding implies that the class teachers performed considerably well in one out of the three dimensions of discussion method that were investigated in this research. In effect, the teachers performed considerably well in use of features of discussion method by teachers to learners but performed considerably not well in the two other dimensions, namely, use by learners to teachers and use by learners to learners. Besides guiding disposition of teachers as perhaps being fundamentally responsible referred to above, another major reason adducible for the poor performance on two dimensions seems to be on the backgrounds of the teachers as their performances depended on their competencies which in turn depended on their training/preparatory packages. Consequently, the teachers appeared to require more extensive training (Sadker and Sadker 2005; Akinbobola 2006; and Ayeni 2007) on dimensions of discussion method (Brookfield and Preskill 1999; Larson 1999; Biggs 2003; Pollard et al. 2008; Arends 2009; and Kauchak and Eggen 2011).

Summary implications on the fore-going situations on the findings are:

I. The learners seemed not to have been adequately prepared toward asking questions from their teachers.

II. The learners equally appeared not to have been sufficiently prepared toward asking questions from each other under the guidance of their teachers.

III. The learners were not independent enough in classes.

IV. The classes were teacher dominated.

V. Inter-action was not very effective in the classes.

All these five deficiencies can be remedied by improving training or preparation. For example, Imogie (2006) observed that formal teacher education programme equips teachers on effective interaction; his position is supported by several authors including Biggs (2003), Sadker and Sadker (2005), Oloruntegbe and Daramola (2007), McNerney and McNerney (2007), Eluwa and Eluwa (2010), Wiles and Bondi (2011), and Kauchak and Eggen (2011). If effective interaction is far-fetched, an observation of Kane (2002) that pre-service teacher education programmes tended to reinforce a transmission model of teaching as telling is supported.

An issue raised under introduction is new directions on effective teaching where discussion would be expected to play a vital role (Sadker and Sadker 1997; 2005). A significant point that emerged was that coverage is the greatest enemy of understanding (Nelson 1998; Biggs 2003; Sadker and Sadker 2005). If the teachers were deficient in two out of three dimensions of discussion method, an implication is that the learners might not really understand the subject matters that they were taught. Stressing balanced dimensions of discussion method by improving occurrences on use of discussion method’s features (questioning, listening, and responding) by learners to teachers and by learners to learners, would enhance understanding which is a most cherished goal in education (Perkins 2007) and reduce the problem of meaning (Ntuk 2007).

Under literature review, one reality that emerged is that although teachers were aware of the significance of discussion, they seldom practiced it (Larson 1999; Arends 2009). In relation to this, Brookfield and Preskill (1999) had observed that discussion requires time. Obviously, critically examining the process which demands questioning from teachers to learners or learners to teachers or fellow learners, requires listening or waiting (Kauchak and Eggen 2011), and later responding. The process virtually costs time and patience. However, education programmes are currently not only closed with definite schemes of work to cover within limited duration, but are often loaded. Implication is for teachers to hastily progress (deliver content details) in order to satisfy education administrators. A measure that may assist would be reduction of details (reducing content to summary demanded by effective teaching).
right from curriculum development packages. Another measure is for teachers to be more painstaking and disregard less tasking methods of teaching on the professional premise of what is worth doing at all is worth doing well.

The benefits of discussion are numerous, encompassing socio-psychological and intellectual conditions such as increase in intellectual agility of students, capacity for clear communication of ideas and meaning, skills of synthesis and integration, and general transformation of students (Brookfield and Preskill 1999; Larson 1999; Biggs 2003; Sadker and Sadker 2005; Pollard et al. 2008; Arends 2009; Kauchak and Eggen 2011; and Wiles and Bondi 2011). These benefits added, capable of making the acquirer to be civilized, intelligent, and emotionally mature. Where discussion is lacking, it may be asserted that these benefits would be wanting or that their availability in considerable degrees could hardly be assured. The adverse effects would not be far-fetched on individuals, education, and societal development.  

CONCLUSION

Need to discourage imparting information by. underscoring balanced dimensions of discussion method in classes, was the concern of this research. Literature was reviewed for this purpose and it was discovered that empirical researches on single attempt at investigating the three dimensions of discussion method, namely, use of its features (questioning, listening, [and] responding) by teachers to learners, use of the features by learners to teachers, [and] use of the features by learners to learners, were uncommon.

Moreover, available researches on the dimensions had focused on one dimension, namely, use of the features by teachers to learners. Furthermore, the two gaps (situations) were not peculiar to a human ecology but universal. The three reasons indicated the need to progress with the research. A major instrument: ‘Performances of Class Teachers on Dimensions of Discussion Method’ (PCTDDM) was developed; it was validated and its reliability was ensured. Two other instruments, namely, Form to obtain demographic data of each teacher and Tape Recorder to record performances of each class were used as support. The three instruments were used in observing the classes and recording data by the researcher. Analyses of obtained data showed that out of the three dimensions investigated, the class teachers performed considerably well in one dimension, namely, use of the features by teachers to learners but performed considerably not well in the other two dimensions, namely, use of the features by learners to teachers and use of the features by learners to learners. Proportion of acceptable performance was one third (1/3) consequently, which was negative imbalance.

Recommendations

Based on the findings of this research, the following recommendations are made;

In-service training programmes during long holidays or week-ends seem important for the teachers in this population, on training in dimensions of discussion method for long term development.

Conferences, seminars, and workshops, may be organized on short term basis for teachers to acquire basic skills in dimensions of discussion method. Teacher training packages of Colleges and Universities in Akure, Ondo State as well as federal conventional tertiary institutions, need to stress vitality of discussion method so that teacher trainees may receive adequate preparation on the method. This research may be replicated in other parts of Ondo State, Nigeria, and beyond for comparative data generation. Moreover, larger samples may be used for improved coverage and consequent generalization.

Reasons responsible for continued use of transmission style of teaching (imparting information) may be vigorously investigated with a view to proffering solutions.

REFERENCES

Organized by Department of Arts and Social Sciences Education, University of Lagos, Nigeria.


Oloruntegbe KO, Daramola CA (2007). Facilitation of curriculum development and implementation in schools: instructional materials as a case study, Educational Thought, 6 (2), 24-33.


