

Classroom Participation and Knowledge Gain

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Abstract

Despite various research on students' engagement and participation from different dimensions, a gap still exist in the educational literature in the area of ascertaining if students' participation in the classroom contributes in any way to the development of their knowledge of key concepts learnt in the classroom. Using a descriptive study, students' knowledge of key concepts learnt in previous lectures were tested at the end of each seminar tutorial sessions with some evaluation of the sessions for feedback on session activities. Findings reveal that classroom participation does enhance knowledge gained by the students in the session activities. The findings contributes additional knowledge to the educational literature especially that of teaching and active learning.

Keywords: Classroom participation, Active learning, Student engagement, Knowledge gain

1. Introduction

Does classroom participation enhance students' knowledge of concepts learnt in the lecture? Classroom participation otherwise referred to as student engagement or active learning require the student to take a more participatory role in learning, instead of adopting a receptive and passive posture in their learning process (Snyder, 2003). It is highly valued at the university level (Wooldridge, 2008) due to its usefulness in teaching and learning (Haruna, 2007). Scholars have advocated the use of classroom participation in training programmes as research overwhelmingly supports its worth for increase learning and development of cognitive skill and critical thinking (Hillyard et al., 2010). It has been pointed out that the more involved the student is the better understanding and knowledge gained from the learning process (Snyder, 2003) as such, students gain a better understanding of the topic if they participated in frequent classroom discussions (Hansen et al., 2002). Classroom interactions between students and instructors are considered more effective for concrete learner than traditional lectures (Bartlett and Ferber, 1998) as research has demonstrated that active individual and group processes enhance learning (Wilson, 2005).

Although a lot of research has been done on students engagement and participation from different perspective such as, participation in time intensive courses (Scanlan and Stephen, 2010), the use of games and experiment in participation (Wooldridge, 2008; Durham et al., 2007), ethical dilemma dimension (Haruna, 2007) and ways of increasing and managing classroom participation (Mathews and Jackson, 2009; Clark and Kemp, 2008; Graham et al., 2007; Zepke and Leach, 2010). Limited studies have actually looked into the possibilities of participation in enhancing knowledge of concepts learnt. In view of these, the purpose of this study is to examine if participation by students in the classroom seminar activities does enhance their knowledge of concepts taught in the lectures.

2. Definition of Classroom Participation

Classroom participation which is sometimes referred to as active learning is defined as students' cognitive investment in, active participation in and emotional commitment to their learning (Chapman, 2003 cited in Zepke and Leach, 2010). ACER (2008 cited in Zepke and Leach, 2010) defines it as student's involvement with activities and conditions likely to generate high quality learning and Graham et al (2007) defines it as the result of a deliberate and conscious attempt on the part of a teacher to cause students to participate overtly in a lesson. While these definitions are widely accepted, the definition by Graham et al. (2007) above suits the nature of this study in that, as a tutor, I deliberately cause students to participate overtly in the seminar sessions through various group activities as will be later discussed in this paper.

2.1 Need for Classroom Participation

Classroom participation helps students connect with the material in a way that encourages them to want to learn more and lets them retain the material longer and also help them understand the connection between what is being taught in class and how it relates to the everyday lives (Scanlan and Stephen, 2010). Aside these, ability to work as a team clearly dominates hiring decisions (Wilson, 2005) in recent times. Indeed, there has been increase emphasis on the use of teams in organizations of all types especially with increased used of teams in the real world (Buckenmyer, 2000) in the sense that no one works individually anymore but as a team to achieve company's objectives as is the case of the course business to business marketing (of which I am tutoring) in which a business rely on the cooperation of other businesses in its supply chain management to achieve their ultimate goal of satisfying the end users. These have led to the increased need for students' exposure and

experience with teams. Hence, the increase use of team for class/course projects (ibid) of which this was one of the objectives of grouping students into different groups continuously [with the use of verbal reminders (Emmer and Gerwels, 2005) of the importance of working in groups] during the seminar session to help develop their skills of working with different teams and personalities within the group as this will be expected of them in the real world of business to business marketing and making sure that examples of concepts relate to the everyday lives of real businesses.

2.2 Goals of Classroom Participation

Haruna (2007) asserted that selecting a participation goal is important for focusing discussions and for defining the instructor's role in classroom participation. He further posited that the aim of classroom participation should be to motivate students to learn the art of argument, facilitates common reasoning by promoting cooperative learning, encourage students to apply new theories by expressing and supporting them factually and logically; as well as help them filter ideas and draw acceptable conclusions while sharpening their verbal skills. In view of these, the goal of the seminar group participation was to aid in improving the knowledge and understanding of the students' knowledge of concepts learnt in the lecture while also in the process of the group activities help them develop the skills of working in teams, develop confidence in themselves during individuals presentations and also develop their thinking, communication and presentation skills.

2.3 Previous findings on Classroom Participation

Although limited research exist on the link between classroom participation and knowledge gain, previous studies in participation have reported significant gains of students with little experience on a concept from interaction with other team members in a participative class activities (Wilson, 2005). Studies revealed that active learning methods generally result in greater retention of material at the end of a class with superior problem solving skills, more positive attitudes, and motivation for future learning (McKeachie et al, 1987; Rhem, 1998). Durham et al.'s (2007) study using classroom experiment found that the experiment increased knowledge retention of concepts taught as well as improved the performances of the students. Felder and Brent (1996) found that group work enhances motivation to learn, retention of knowledge, depth of understanding and appreciation of the subject being taught while Graham et al (2007) also found that classroom participation increased students' performance, and provided important feedback to the instructors on their teaching.

3. Research Method

Horngren (1963) posited that in evaluating whether participation has been achieved, one must see whether the goals of the course have been accomplished. It is in this respect that a case study perspective was used in which the objective was to study the improvement in knowledge of concepts of the participants in the seminar sessions over a semester. The seminar exercises were already given to the students at the beginning of the course and every week, an online moodle forum was used to remind the students of the seminar exercises for each session.

Before the start of each seminar, all participants were made aware of the objectives of the session and the mode of activities of the day was made clear to the participants that is, whether group presentations, individual presentations or open discussion. Participants were also made aware of the time given for discussion, interaction, presentation, comments and contribution by each participant during the session. This mode of operation is in accordance with Haruna's (2007) suggestion that participation activities should be well planned with the common goals of participation and discussion guidelines clarified. At the end of each session, the participants were asked to rate the improvement of their understanding of the concepts learnt in the session using a five point-likert scale questions. Evaluation of the seminar session was also carried out to receive feedback on the sessions. The total number of student in the class investigated was 60.

3.1 Forms of Classroom Participation

Different forms of Classroom participation exist such as discussions (Wooldridge, 2008; Scanlan and Stephen, 2010), dialogue and debate as a way of generating ideas and perspectives for analyzing and understanding assigned tasks (Haruna, 2007). Hillyard et al. (2010) pointed out the use of cooperative groups as a way of engaging students in active learning; Graham et al. (2007) posited the learning by doing principle, hand raising and the use of response cards; Wooldridge (2008) put forward the use of interactive games as a way of facilitating participation while Durham et al. (2007) encourages the use of classroom experiments. In this study, discussion, dialogue, brainstorming and hand raising was used in the seminar sessions as well as group and individual presentations. Hand raising was used in other to identify students who wanted to contribute during the session in order to eliminate the interruption of other students while speaking or presenting. During the session, a time frame was given for discussion within the group and brainstorming for ideas of the tasked assigned and use of resources such as white boards, flipcharts and power point presentations were allowed.

4. Analysis

Using descriptive statistic, the result of the seminar sessions' activities were analyzed with simple statistics

which is presented in percentages as shown on table 1 below.

Table 1: Analysis of Concepts Investigated and Knowledge Gained

No. of Seminar Sessions investigated	Concepts investigated for knowledge gain	% of participants' Agreement to Knowledge gained on the concepts	% of participants' disagreement to knowledge gained on the concepts.	% of participants neutral on their knowledge gained on the concepts.
1	Market Orientation	76%	16%	8%
2	Supply Chain Management	52%	10%	38%
3	Innovative technologies and New product performance	88%	12%	-
4	Organizational Culture and Business relationships	100%	-	-
5	Customer Portfolio Planning	100%	-	-

Day 1: The objective of Day 1 session was that participants will gain knowledge on key concepts of Market orientation. At the end of the session, the result as displayed on table 1 above showed that 76% of the participants of that day's seminar session were in agreement that there was improvement in their understanding of the concept of market orientation compared to the 16% of the participants who disagreed on the improvement of their understanding of the concept during the session and 8% of those who were neutral on the question. The 76% acknowledgment of knowledge gained during the session indicated to a large extent that the group presentation and discussion of that session did have an impact on the knowledge gained by the participants during the session.

Day 2: The objective of the session was that participants will have knowledge on key concepts of Supply Chain Management. At the end of the session, the result indicated that 52.4% of the participants of the seminar session acknowledged to an improvement in their understanding of the concept of Supply Chain Management compared to the 9.52% of the participants who disagreed on the improvement of their understanding of the concept during the session and 38.1% of those who were neutral on the question. The 52.4% acknowledgment of knowledge gained during the session to some extent indicated that the active learning session did have an impact on the knowledge gained by the participants during the session.

Day 3: The objective of the session was that participants will have knowledge on key concepts of Innovative Technologies in Supply Chain management and New Product Performance. The result indicated that 87.5% of the participants of the seminar session acknowledged that there was improvement in their understanding of the concept against the 12.5% of the participants who disagreed. The 87.5% acknowledgment of knowledge gained during the session to a large extent indicates that the student engagement of that session did have an impact on the knowledge gained by the participants during the session.

Day 4: The objective of the session was that participants will have knowledge on key concepts of Organizational Culture and Business Relationships. The result indicated a 100% acknowledgment that there was improvement in the participants' understanding of the concept of Organizational Culture and Business Relationship learnt in the activities of that session. Hence, the participative activities of that session did have a significant impact on the knowledge gained by the participants during the session.

Day 5: The objective of the session was that participants will have knowledge on key concepts of Customer portfolio planning. The result as displayed on Table 1 above showed that all the participants (100%) agreed to the improvement of their understanding of the concept of Customer Portfolio Planning thereby implying that the participative activities of the day did have a significant impact on the knowledge gained by them during the session.

4.1. Evaluative feedback on the session

A two day evaluation was also carried out during the session to get feedback on the session as posited by Emmer and Gerwels (2005). The participants were asked to comment on the two evaluative questions as given below:

1. What did you like or dislike about the sessions?
2. What would you have preferred about the session?

The evaluative feedback on the first questions did indicate the general acceptance of the participative activities in the seminar sessions and the knowledge gained in terms of the content of the session, the questions, the feedback, the flow of ideas and discussion, the examples, the fact that questions were provided before the session for preparation, the interaction in groups and open discussion as indicated by the following comments:

What the students liked about the Session

"The seminar was helpful and useful because of all the examples given to support the answers. It was easier to understand and I felt confident" Participants Evaluative Response

"Informative, provides a lot of information with regards to topics covered in lecture" Participants Evaluative Response

- “Very informative, interactive as all members of group participated”* Participants Evaluative Response
“Allowing the bounce and flow of ideas” Participants Evaluative Response
“I liked everything” Participants Evaluative Response
“I liked the questions and feedback” Participants Evaluative Response
“I liked the open discussion” Participants Evaluative Response
- What the students disliked about the Session
“Presentation” Participants Evaluative Response
“Groupings” Participants Evaluative Response
“Presentation often get more out of a general discussion” Participants Evaluative Response
- What the students preferred about the Session
“I would prefer if people argued more to the answers” Participants Evaluative Response
“It would be nice in each seminar to devote 10minute to discuss about real life b2b examples” Participants Evaluative Response
“I would have preferred a discussion by all members of the group instead of groups split” Participants Evaluative Response

5. Discussion

The purpose of this study was to examine if participation by students in the classroom seminar activities does enhance their knowledge of concepts taught in the lectures. The findings of the seminar sessions which included group/individual discussions and presentation activities showed that classroom participation does enhance knowledge gained by the participants in such activities. The findings contributes additional knowledge to the educational literature especially that of teaching and active learning that encouraging classroom participation will go a long way to enhance the knowledge base of the students. This finding aligns with similar findings by Durham et al. (2007); McKeachie et al, 1987; Rhem, 1998 and Felder and Brent (1996) of increase knowledge retention of students in classroom participation. While the preferences indicated by the participants are noted, it implies that one size of participative activity does not fit all as such; variety of participative activity could be continuously devised to cater for the needs of students who prefer other methods. The positive evaluative response does imply that a lot is being done to improve the academic performances of the students in the course while also noting that different participants preferred different learning styles.

6. Conclusion

This study started with an inquiry question “Does classroom participation enhance students’ knowledge of concepts learnt in the lecture?” Although many studies were carried out on classroom participation, very limited study examined its impact in enhancing the knowledge base of the student as regards concepts learnt in the classroom. This paper, in reviewing the literature of classroom participation (which included its definition, its form, the need for such and previous findings on the concept) applied those views in a five day seminar activities which incorporated the forms of participation identified in the literature such as discussions (Wooldridge, 2008; Scanlan and Stephen, 2010), dialogue (Haruna, 2007), hand raising and group activities (Hillyard et al., 2010) with other strategies of classroom participation such as brainstorming, group and individual presentations. The findings addressed the inquiry question by responding “Yes classroom participation does enhance students’ knowledge of concepts learnt in the lecture” as revealed by the high percentage of participants who responded in agreement to the inquiry question posed for each concepts in the five days period. Hence, classroom participation should be greatly encouraged in all forms of teaching and learning activities in the educational process with a reduction of the ‘teacher/lecturer led only mode’ type of teaching in which only a one-way process (teacher/lecturer to student only) is involve. A further research with a longitudinal perspective using a pretest and posttest comparison will add more depth to our understanding of the cause and effect relationship in classroom participation and knowledge gain.

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