

Interrogating the Skill of Introducing A Lecture: Towards an Interactive Lecture Method of Instruction

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ABSTRACT Higher education institutions face a lot of criticism from many stakeholders. One of the criticisms is directed towards the approaches to teaching and learning. The effectiveness of the lecture method has been questioned because of its inherent weaknesses as informed by the transmission pedagogical approaches, yet it continues to be used in universities. The lecture method is the most common method of instruction often considered handy in transmitting knowledge to a large number of students but critical reflection shows that this approach has serious limitations in teaching students to be critical thinkers, knowledge generators and social beings. In this paper, the researchers interrogate the skill of introducing lectures within the context of transforming the lecture method to a more interactive and student-centred one. The presentation is underpinned by the constructivist theoretical framework. In the paper the researchers critically discuss ways in which lecturers may effectively introduce their lectures. The purpose of introducing lectures is explored and various approaches to lecture introduction discussed. The strengths of the various ways of introducing lectures are evaluated in the way they transform the lecture method into a more interactive one. The conclusion drawn is that effective teaching requires skills and expertise in pedagogy and andragogy and university teachers are encouraged to take up courses that enhance their knowledge and skills in teaching to make them better teachers.

INTRODUCTION

The Lecture Method of Instruction

Research has shown that all teaching methods have their strengths and weaknesses (Barnes and Belvins 2003; Morgan et al. 2000). In this view, the lecture method despite its well-documented limitations (Edlich 1993; Brockbank and McGill 1998) may not be totally discarded in favour of other teaching approaches. There is a need to transform the lecture method and make it more interactive. Studies have been carried out to find out the effectiveness of teaching approaches. A study by Barnes and Blevins (2003) suggests that active and discussion-based methods are inferior to the traditional lecture-based method. On the other hand, a comparative study by Morgan et al. (2000) which compared lecture combined with discussion method versus active and cooperative learning

methods found that the use of the lecture combined with discussion method resulted in superior retention of material among students. It is from this observation that this presentation seeks to suggest ways of transforming the lecture method. This is done in full realisation that in view of large numbers in universities, particularly South African universities, the lecture method will certainly be in use for some time. Qualters (2001) even observes that due to tradition, students often resist other approaches to teaching in preference to the lecture method and lecturers who involve students in lectures may be unpopular with students. Lecturers, however, should be armed with skills to make use of interactive lecturing where the lecture is combined with active learning strategies to make it more interactive.

As a method of instruction the lecture method is informed by transmission models of instruction whose prime purpose is to transmit knowledge to students (Quinn 2000). The lecturer is active and responsible for the transmission of a specified body of knowledge while students are active receivers of knowledge. Students' understanding of internalised knowledge is judged by their internalising of the learnt content. To this end, assessment methods consistent with the

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transmission methods encourage students to cram what is learnt (Maphosa and Kalenga 2012). It is this failure to engage students in deep learning that lectures as a method of teaching and transmitting information have come under increasing criticism (Kimmel 1992). Newble and Cannon (1994) further observe that lectures are just inappropriate in instances where the intended learning outcomes require the students' application of knowledge and the development of critical thinking skills. This shows that even in its use, the lecture method of instruction has to be transformed to be more interactive and ensure the facilitation of deep learning. Students should not be passive and dependent on the lecturer but they should be engaged in the learning process.

The need to transform the lecture method of instruction is seen against the view that in lectures, lecturers pass on information to passive students and there is need to ensure that lecturers have dialogue with students and assist them to construct their own knowledge. This is based on the understanding that learning is interactive and students are not blank slates but that they build on what they already know. As advanced by Ebbinghaus (1913), the forgetting curve argues that human beings memory retention declines with time to the extent of losing most of what is learnt in days unless the material learnt is revised. The forgetting curve shows that within the first 24 hours, adults will remember less than 50 percent of what they would have learned within an hour of learning unless they have the opportunity to reinforce and practice it during or immediately afterwards (Ebbinghaus 1913). The forgetting curve is cut by ensuring that students are active during the learning process. Kiewra (2002) also observes that students only capture 20 to 40 percent of a lecture's main ideas in their notes and will only be able to remember less than 10 percent after three weeks if the work is not presented in a manner that actively involve students (Bligh 2000). Yoder and Hochevar (2005) further argue that the use of active learning is important in the improvement of students' performance in examinations.

Fosnot (1989) cited in Carpenter (2006: 14) observes that:

The traditional passive view of learning involves situations where material is delivered to students using a lecture-based format. In contrast, a more modern view of learning is con-

structivism, where students are expected to be active in the learning process by participating in discussion and/or collaborative activities.

A lecture-led approach represents the transmission model of teaching (Quinn 2000) and it is criticised for being a one-way communication process (Curzon 2004) that does not suit all learners and, in fact, may hinder interaction (Ashcroft and Foreman-Peck 1994).

Theoretical Framework

This presentation is underpinned by constructivist approaches to teaching. Hawkins (1994) cited in Fensham et al. (1994: 9) observes that:

Constructivist views do stand in opposition to long-established majority traditions in education generally, especially education in the sciences. In that tradition the dominant image has been the transmission, from the teacher and text to students, of single-track, logically organised knowledge.

The lecture method of instruction which is dominant in the university teaching approaches and seeks to be transformed, used in its purest form stand against the call for constructivism. Constructivism contends that people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences (Christie 2005). As a learning theory, constructivism argues that learning is an active process and knowledge is constructed by and shaped from experience (Christie 2005). Honebein (1996) further observes that in constructivism students' points of view are valued. This is in contrast to traditional approaches to instruction where the lecturer dominates. It is, therefore, important to involve students in all aspects of the lecture including the introduction. The need to always think carefully of the different ways of introducing a lecture as well varying the ways of introducing lectures is consistent with the constructivist view of multiple modes of representation on content and the way such content is provided (Honebein 1996).

The study further draws on the 5 E's which is an instructional model based on the constructivist approach to learning (Bybee et al. 2006), which says that learners build or construct new ideas on top of their old ideas. The 5 E's are Engage, Explore, Explain, Extend and Evaluate. Work on making use of effective introductions

is based on the Engagement phase of the 5 E's which entails ensuring that students make connection of their past and present learning experiences. By engaging students in critical thinking exercises in the introductory part of the lecture, students are able to connect what they already know to what they will learn in the lecture. Such a connection is important in bridging the gap between the known and the unknown. The reason why most students find lectures boring is that they fail to connect learning experiences (Clay and Breslow 2006). Good and Brophy (1994) state that new learning builds on prior knowledge. Students should be given intellectually challenging and stimulating exercises even at the very beginning of the lecture. Constructivist learning is inductive. Constructivist learning dictates that the concepts follow the action rather than precede it. The activity leads to the concepts; the concepts do not lead to the activity (Cooperstein and Kocavar-Weidinger 2004).

What is a Lecture Introduction?

It is important for university teachers to know how to effectively introduce lectures in ways that capture students' interests and sustain the interest for the whole lecture. A lecture is as good as its beginning. The Learning Systems Institute (2002) states unequivocally that introducing a lecture should be well planned and that it is not as simple as some lecturers think. One often sees a lecturer simply greeting students and telling them of what the day's lecture will be about. Such an approach is a typical example of a lecture whose introduction has not been properly planned. Such a way of introducing heightens passivity and students' boredom (The Learning Systems Institute 2002). Wagaman (2009) states that the introduction to a lesson is often overlooked and taken for granted. This should not be the case if universities' quest for effective and excellence in teaching and learning is to be a reality. Wagaman (2009) further observes that a good introduction is one that engages students, tells them what to expect from the lecture and provides a framework from which each student can work (Wagaman 2009). An introduction should serve to stimulate students' enthusiasm and engage them from the start. Engaging students ensures that they are actively involved in the learning process.

Purpose of a Lecture Introduction

It is also vital for lecturers to know the essence of lecture introductions as key components of the whole lecture. Such an understanding breeds an appreciation which results in concerted efforts to meaningfully plan for lesson introductions as one plans for the whole lecture. The Learning Systems Institute (2002) notes that the purpose of the lecture introduction is to prepare students for the lecture by gaining their attention, informing them of the lesson objectives. Additionally, the lesson introduction gives students an expectation for the lesson and prepares them to use strategies that will help them learn the lesson content. According to the Learning Systems Institute (2002), the lecture introduction serves the following purposes;

- a) Gaining students attention
- b) Presenting and explaining lecture objectives
- c) Providing an overview of the lecture
- d) Stimulating students' prior knowledge and skills
- e) Discussing safety issues
- f) Building students' interest
- g) Arousing students' curiosity
- h) Motivating students to learn

Gaining Students' Attention: It is of great importance for lecturers to gain students attention from the very beginning of the lecture. Without capturing students' attention, lectures become very boring and students will not follow the lecture. In a study on establishing factors that affect students' lecture attendance, Clearly-Holdforth (2007) found that some students considered lectures boring due to poor and predictable pedagogical approaches hence were not compelled to attend them. Working on effective lecture introductions that capture students' attention could be one way to make lectures exciting and ensure that students are always expectant of novel things in a lecture.

Presenting and Explaining Lecture Objectives: Another meaningful way of introducing a lecture is by clearly spelling out the objectives of the lecture or its intended learning outcomes. When a lecturer takes time to spell out the objectives of the lecture, students are given a clear sense of direction. Educational research has established the fact that achievement is enhanced in a classroom, where students have a clear un-

derstanding of the objectives for learning. Lieberman (2011) explains objectives as roadmaps suggesting that they are the guides that give direction on the course the lecture takes hence the importance of spelling these out in the very beginning of the lecture.

Providing an Overview of the Lecture: An introduction may also serve the purpose of providing an overview of the lecture. Providing an overview enables students to know what to expect in the lecture. Lecture learning outcomes may be spelt out to students so that students are able to measure by themselves the extent to which they would have achieved the lecture objectives. Spelling out lecture objectives is critical in keeping students focused.

Stimulating Students' Prior Knowledge and Skills: Effective learning is only possible when students can link new content to what they already know. Learning from the known to the unknown enhances understanding. The issue of learning from the known to the unknown dates back to early psychologists and Ausubel (1968: 235) aptly summarises the importance of this principle by vehemently stating that:

If I had to reduce all of educational psychology to just one principle, I would say this: The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly.

It is, therefore, imperative that in introducing lectures, the lecturers select and present activities that assist students to build on new concepts on what they already know.

Discussing Safety Issues: In some lectures that involve the carrying out of practical work, the introduction may be used to discuss safety precautions that students should be aware of the proper and safe execution of their tasks (Turner 2008). The importance of investing time introducing precautionary measures before a lecture on safety issues assists in preventing incidents and accidents that results in injuries and fatalities (Kaldahl and Blair 2005).

Building Students' Interest: One of the reasons why students shun lectures is that lecturers are boring (Kottasz 2005). The need to capture students' interest is very important in an attempt to make lectures exciting. In a study on students' interests and performance, Abrantes et al. (2007) found that students' perceived learning depending directly on their interest. This shows that lecturers have to identify students'

interests and build on them in making lectures exciting. Lesson introductions should include activities that make learning interesting. Tomlinson (1999) observes that varying instructions based on what students want to know and how they prefer to learn helps to create a collaborative, learner-centered climate that has positive effects on students' achievement. Hidi and Renninger (2006: 111) also assert that "... the level of a person's interest has repeatedly been found to be a powerful influence on learning." Building on students' interests is, therefore, important in ensuring meaningful learning.

Arousing Students' Curiosity: Curiosity is generally a strong desire to know or learn something. Effective development of lectures thrives on introductions that arouse students' desire to know more. Kumar (2003) contends that a worthwhile lecture is one that "aims at arousing students' curiosity, motivating them to learn, and guiding them into creative thinking..." The realization that arousing students' curiosity motivates them to learn by engaging creative thinking shows its importance in fostering higher order learning rather than mere recall of facts. Arnone (2003: 1) states that:

To instill curiosity in students is to encourage their disposition to learn.

To ignore its importance is to risk diminishing, if not losing, the endowment of curiosity conferred upon all at birth.

All students are curious to learn and this epistemic curiosity should be capitalized on in enhancing student learning. The lecture introductions should often serve to arouse students' curiosity. Small and Arnone (2000) states that use of thought-provoking question or a surprising statement may help arouse students' curiosity at the beginning of a lesson.

Motivating Students: Motivation of students to learn is one important aspect of the teaching and learning process. Skinner and Belmont (1991) cited in Brewster and Fager (2000: 4) state that student motivation "refers to a student's willingness, need, desire and compulsion to participate in, and be successful in the learning process" and this includes students' enthusiasm, optimism, curiosity and interest to be engaged in their work. Motivation, therefore, plays a pivotal role in giving the urge for students to learn. While external or extrinsic motivation is important, it is internally driven or intrinsic motivation that propels students towards achievement. Use

of critical thinking questions, role play and simulation, videos or songs or assist in motivating students at the beginning of a lecture. Kiewra (2002) actually notes that key to any meaningful learning process is to capture students' attention.

Ways of Effectively Introducing Lectures

A good lecture, like a good film or piece of music thrives on a sound beginning. Hence, the importance of having an engaging, intriguing and well thought out lecture introductions.

Use of a Picture: The old adage has it that a picture is worth more than a thousand words. The lecturer may make use of a relevant picture that allows students to think and talk as a way of engaging with the day's content. In a nursing lecture that deals with signs and symptoms of HIV/AIDS illness, the lecturer may show on the first PowerPoint slide a picture of an extremely ill HIV/AIDS patient and asks them to talk about the picture. After exhausting their ideas on the picture, the lecturer may now say "Our lecture this morning is on signs and symptoms of HIV/AIDS". The Visual Resources Association (2002: 1) states that:

Images are essential pedagogical and scholarly materials. They are unique objects whose meaning cannot be adequately conveyed through words or other media. Images may themselves be the object of commentary or critique...In the classroom, in the scholar's office, or in the study areas, images are used to facilitate academic inquiry and criticism; to encourage robust discussion, debate and discourse; and to illustrate and enlighten.

Through the introduction in which students critique an image, students have their attention captured, interest aroused and the bridge between what they are going to learn and what they know already narrowed.

Use of a Short Video: A lecturer may also pay a short video clip related to the day's lecture. Students watch the clip and then discuss its contents before the teacher can link the video clip contents to the day's lecture. The importance of using a related video clip is to excite students and maintain their interest in the lecture. On the use of video clips (Fill and Ottewill 2006) observe that video clips can provide 'a compelling and immersive educational experience and are able to stimulate the students' interest,

motivate interest and bring a relevancy to the subject area. Laurillard (2002), cited by Davies et al. (2005) in his conversation model of teaching clearly states that video clips provide activities of discussion, interaction, adaptation and reflection which are essential for academic learning. Lance and Kitchin (2007) recommend the use of relevant 'you tube' videos to enhance teaching and learning. Ginsburg et al. (2008) conclude in their study that video-use is highly interactive.

Role Play: The use of role play is also one effective and attention-captivating way of introducing a lecture. In a roleplaying activity students ordinarily take on different roles of characters and they act as the characters would do in a real setting. Role play allows students to experience what they are learning. Research has shown that "integrating experiential learning activities in the classroom increases interest in the subject matter and understanding of course content" (Poorman 2002: 32). In engaging in role play students cease to be passive in class but become active participants. Poorman (2002: 32) observes that "true learning cannot take place when students are passive observers of the teaching process." Students' boredom with lectures is greatly reduced if they are active participants in the learning process hence the need to revamp the lecture method and make it more interactive. Graves (2008) contends that role play enables students to be actively involved in learning and that when a "student is actively involved in his or her learning, he or she is more likely to truly connect with the material and remember the concept for a long period of time". Schaap (2005: 46) further found that "role-playing is more likely to promote active learning amongst undergraduate students than a traditional university lecture."

Story Telling: Telling a story related to the day's lecture is also an effective way of introducing a lecture. Students' attention is made possible by their listening to the story and their interest and motivation sustained by their contribution to short discussions on the story. Davidhizar and Lonser (2003) state that story telling is a powerful teaching tool that can be used in many disciplines and in nursing science as well. Davidhizar and Lonser (2003) further note that story telling approaches assist in enhancing self-esteem, develop critical thinking, model behaviors, and to teach cultural sensitivity and communication skills. Jonassen and Hernandez-Ser-

rano (2002) observe that a suitable story can be used as a problem case to be solved by students. Such an introduction allows students to listen well to the story and respond to issues to be solved as a way of preparing them for content in the day's lecture. Tobin (2007) finds story telling applicable even in the teaching of information technology courses.

Use of a Song: Students generally enjoy singing. Imagine the way university students sing and dance when they are protesting on campus. Taking singing into the lecture room is a worthwhile activity as well. Research indicates that students are able to remember information on a long term basis if they are taught incorporating music in their lessons. With reference to music, Lindsay (1997) says:

[It] isthe most influential thing in a teen's life. They listen to music when they wake up. They listen to it in the car on the way to school, when they come home, while they are doing homework. It is a soundtrack of their lives.

Paul (2003) observes that songs are popular in teaching because they are interesting, relaxing, and encourage a non-threatening and friendly atmosphere. Songs also increase students' motivation as well as make them very attentive. Such a view is consistent with Laurillard (2002) that the students of today do not usually learn effectively by listening passively, note taking and absorbing information but that they learn more effectively if they are actively engaged in the learning experience. Use of songs adds flavour to activity-based learning which ultimately bring joy to lectures and kill the boredom and frustration students normally associate lectures with (Kottasz 2005).

A Game: Students can be involved in a game as planned and organized by the lecturer. The game that the students are involved in is related to the content of the day's lecture. In a study to ascertain the extent to which games could enhance adult learners' learning, Henry (1997) found that use of games was a useful teaching strategy that conveyed information in a stimulating and appealing manner. Henry (1997) also finds the use of games as a very useful method in teaching for understanding for adult learners in nursing. Glendon and Ulrich (2005) argue that lecturer-delivered content is often tedious and boring and the same applies to lecturer-centred introductions to lectures. The need to vary such in-

troductions cannot be over-emphasised with a view to capture and sustain students' interest. Short games are fun and highly motivating. Felder (2003) states that active learning allows the students to take part in their education through a number of games and activities. In a study to ascertain students' preferences of different teaching approaches, Hootstein (1995) found that students ranked playing games to introduce new topics as well as for reviewing previously taught information highly. Play-like activities that lecturers may use include matching games, puzzles, pictionary, debates, and group competitions. These activities encourage student to participate and develop the skill of working with others.

Using a Previously Done Topic: A lecturer may also consider introducing a lecture by making use of a previously done topic and drawing a link between the previous topic and the new one. The lecturer may inform students of the day's topic and then ask students what they did in the previous lecture and then attempt to draw similarities and differences. In a geology lecture where discussion of characteristics of a particular rock type will be the focus of the present, students may be asked to discuss characteristics of previous rock types as a ways of linking topics (Houston 2009). For example, before the students learn about sedimentary rocks they may first refer to the igneous rocks they would have done previously. Such a way ensures that students identify patterns in what they learn which is important to buttress their understanding. Armed with previous knowledge on the formation and properties of sedimentary rocks, students would be more prepared to learn the formation and properties of a new type of rock, the igneous rock.

Bringing in "Realia" (Real Objects) Related to the Lesson: Real objects may be brought into the lecture for students to see and interact with as a way of introducing the lecture. In a journalism class where the lecturer intends to teach students on 'Writing Effective Headlines', the lecture may actually bring newspapers with articles with different headlines and ask students to comment on the most captivating headlines. Even as the lecture further develops and characteristics of a captivating headline such as its ability to make the reader want to find out more by reading an article are discussed, students have a clear idea of what this is all about after having been given the chance to see the real thing and interact with it. In view of this, Nunan (1991) ad-

vocates the use of authentic texts in the learning situation to make learning meaningful and as close as possible to real life situations.

CONCLUSION

The presentation concludes that in as much as the lecture method remains in use in universities, the possibilities for interactive lecturing always reason there. Such interactive lecturing that seeks to transform the traditional lecturer-dominated lecturing system is dependent on the capacity of lecturers as experts in pedagogical issues. This transformation entails attending to all the sections of the lecture from the introduction to the conclusion to ensure that activity based approaches are utilized.

RECOMMENDATIONS

It is crystal clear from this presentation that introducing lectures cannot be taken for granted and that it is not a very simple task. It calls for a university teacher who is thoroughly knowledgeable in pedagogy and andragogy. The following recommendations are made;

- a) University teachers without a teaching background should register for, and acquire qualifications in teaching. A teacher with expertise in pedagogy is better prepared for the task of teaching adult learners.
- b) Departmental and Faculty staff-development programmes specifically on teaching and learning with the aim of improving pedagogical approaches are critical in universities to constantly assist lecturers to improve practice.
- c) Teaching and learning centres in universities should be pivotal in ensuring that teaching done in classes is consistent with latest philosophies and approaches to teaching hence the need to prepare and offer programmes that support lecturers in this regards.
- d) Peer – assessment should be an integral part of lecturer evaluation in ensuring that lecturers learn from peers and advice one another on ways to improve practice.
- e) Exchange programmes within and outside departments and universities should be taken seriously so as to afford lecturers the opportunity to see how other professional elsewhere dispense their duties.

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