

Full Length Research Paper

Medical student's perception of traditional method and power point use for lecture delivery at the University of Port Harcourt, Nigeria

Onotai L. O. FWACS, Tabansi, P. N. FWACP, Asuquo, E. O. MPH

Department of Surgery, University of Port Harcourt, Port Harcourt, Nigeria
Department of Pediatrics and Child Health, University of Port Harcourt, Port Harcourt, Nigeria
Department of Preventive and Social Medicine, University of Port Harcourt, Port Harcourt, Nigeria
Corresponding Author E-mail: onotailuckinx@yahoo.co.uk

Abstract

Many studies have shown that students now desire the use of modern technology during lecture delivery which can enhance their overall learning experience. The long-established traditional method of delivering lectures by just dictating notes without the use of teaching aids appear obsolete. This study explores clinical medical student's perception of methods of lecture delivery in the College of Health Sciences, University of Port-Harcourt. It will also identify the students preferred method of lecture delivery; students lecture needs; highlight factors that affect the quality of lecture delivery and recommend ways of improving the students overall learning experience. Finally, it will serve as a template for future quantitative studies on this subject. This was a cross-sectional descriptive qualitative study that involved medical students in year 4, 5 and 6 doing postings in Preventive and Social Medicine, Medicine and Surgery, Paediatrics, Obstetrics and Gynecology. The duration of the study was 3 weeks from 11th April 2011 to 2nd May 2011. Three hundred students that were present in the lectures of the various classes gave their consent verbally to the researchers and were enrolled for the study. Sixty four were in the year 4 class, 91 were in the year 5 class and 145 were in the year six class. They were administered a questionnaire each by the researchers. The results were analyzed and simple descriptive statistics were used to describe the basic features of the data. Out of 300 students, only 295 returned their questionnaires giving a response rate of 98.33%. The demographic data showed that the age range was 19 to 33 years. The male to female ratio was 1.2:1. For majority of students' 220 (74.58%) lectures were delivered using the traditional (dictation of notes) method and most of them 200 (67.80%) were not satisfied with this method. Their preferred/commonest lecture need was power point presentation during lectures. Majority of the students 206 (69.83%) welcomed the opportunity to have more interactive sections during lectures. Factors that militated against satisfactory learning were lack of teaching aids, poor learning environment, and lack of reference books. This study established that the traditional method (dictating of lecture notes) was the dominant method of lecture delivery in the clinical medical students lecture series of the College of Health Sciences of University of Port Harcourt. The students preferred lecture method was the use of multimedia Microsoft Power Point presentation. To improve the overall learning experience of the students, the University authorities should address the factors like lack of teaching aids and poor learning environment that militated against adequate learning.

Keywords: Medical students, perception, methods of lecture delivery, multimedia Microsoft power point.

INTRODUCTION

Lectures have been the most universal form of learning since prehistoric times. Vella (1992) defined lecture as the formal presentation of content by the educator for the subsequent learning and recall in examinations by students. Furthermore, according to Bligh (2000) lecturing is "more or less the continuous exposition[s] by a speaker who wants his audience to learn something".

Irrespective of these definitions, lectures are used to convey critical information to the listeners.

Traditionally, the lecturer stands at the front of the lecture room and recites or dictates information relevant to the lecture's content to the students. However, critics have argued that lecturing is just mostly a one-way method of communication that does not involve

significant audience participation (Kizlik, 2012). Despite this setback, it has survived in academia as a quick, cheap and efficient way of introducing large number of students to a particular field of study (Seth et al., 2010).

However, deciding on the method of lecture delivery depends on a variety of factors which include; the nature of the material the lecturer tends to cover during the lectures, the maturity and ability of the students, the size of the class, the nature of the environment, the range of facilities that are available to the lecturer and most importantly, his own personal preferences. Many lecturers are accustomed to simply reading their own notes when delivering lectures (traditional method). This format may not be best suitable for the present generation of learners (Oblinger, 2003). Nevertheless, modern lectures generally incorporate additional activities such as the use of multimedia software presentation such as Microsoft power point which has added more value to lecture delivery (Edlich, 1993).

There are other methods of learning apart from lectures which some universities have employed in impacting knowledge into their students. They include; group discussions, assignments, seminars, workshops and conferences. Each of this method has its own merits and demerits, some researchers argue that group discussion method for example engages the students more and learning is more effective whereas, in lecture method the teacher is the role model and dominates the class. Besides, he provides all knowledge related to the topic of the lecture to the students (Delaney et al., 2010).

Over the years student evaluation of lecturers has contributed immensely to improving teaching methodology and lecturer's skills. Researches in the past have indicated that students were the most qualified sources to report on the extent to which their learning experience was productive and satisfying. Opinions on these matters are not direct measures of instructor effectiveness, they are legitimate indicators of student satisfaction, and there is substantial research linking student satisfaction to effective teaching (Theall et al., 2001; Franklin, 2001).

On several occasions, the researchers' have received verbal feedbacks from their students after receiving lectures from various lecturers and it appears that most of them were not satisfied with the method of lecture delivery. What could the problems be? To find answers to this question, a research of this nature is imperative. Furthermore, a review of literature suggests dearth of information on this subject matter in our setting. For these reasons, this study was undertaken to address this gap through investigation of medical student's perception of traditional method and power point use for lecture delivery in the College of Health Sciences, University of Port-Harcourt. It will also identify the students preferred methods of lecture delivery; their lecture needs; highlights factors that affect the quality of lecture delivery and recommend ways of improving the students overall

learning experience. Finally, it will serve as a template for future quantitative studies on this subject.

SUBJECTS AND METHODS

This was a cross-sectional descriptive qualitative study that involved clinical students in year 4, 5 and 6 of the College of Health Sciences, University of Port Harcourt that were doing postings in Preventive and Social Medicine, Medicine and Surgery, Paediatrics, Obstetrics and Gynecology departments. The duration of the study was 3 weeks from 11th April 2011 to 2nd May 2011. The study population consisted of a total of 300 students' that belong to year 4, 5 and 6 classes who attended the various class lectures within the study period. The researchers explained the study objectives to the students and both anonymity and confidentiality were guaranteed. Verbal consent was obtained from the respondents. However, they were also free to refuse to participate in the study if they so desired.

There was no need for calculation of sample size or the use of EPIInfo statistical program (version 6) because the study method was predominantly qualitative and the objective is to understand social processes (Mays and Pope, 1995). Furthermore, the researchers investigated research questions of immediate relevance to everyday work, which might be difficult to investigate without having a preliminary insight (Britten, 1995). Lastly, qualitative study is a better approach useful in achieving depth of response and exploring people opinions and views. The researchers were aware of some criticisms of this approach; the most commonly heard criticisms include, its weakness in terms of breadth of response and an argument that it might lack reproducibility (Mays and Pope 1995).

Study Instrument

A well semi-structured, self - administered questionnaire that contained close and open ended questions was generated and used to collect information from the students relating to their perception of traditional method and power point use for lecture delivery. The questionnaire design was developed through several stages. Three groups' discussions were conducted involving the researcher's colleagues. Each group consists of three people in addition to one of the researchers to discuss and comment on the questionnaire.

The questionnaire was a 2 page document and consists of three sections with 16 questions (Appendix A). The first section consisted of the bio-data of the students, which included age, sex and year of study, the second section focused on students lecture needs and methods used by their lecturers during lecture deliveries,

Table 1. Demographic characteristics of the study population

Demographic characteristics	Frequency	Percentage (%)
Age years		
19-24	137	46.44
25-30	152	51.53
More than 30	6	2.03
Sex		
Male	160	54.24
Female	135	45.76
Class		
Year 4	64	21.69
Year 5	91	30.85
Year 6	140	47.46

while the third highlighted the students over all satisfaction with the methods of lecture delivery. The questionnaire was pretested for modification before it was found suitable for distribution. A total of 300 questionnaires were distributed to all the students present in the various classes after lectures. Sixty four were present in the year 4 class, 91 and 145 in year five and six classes respectively.

Data Analysis

Analysis of data was carried out by the researchers after they have retrieved the questionnaires from the students. The researchers used the 'bottom-up' principle of analysis developed from and 'grounded' in the data i.e. developing hypotheses from the research field upwards rather defining them from previous experience (Bakir and Bakir, 2006). Themes from the analysis that emerged were ranked in order of the most common and the results were then tabulated and simple descriptive statistics were used to describe the basic features of data.

Validity

Validity was ascertained by the process of questionnaire development. Important issues to the study objectives were identified from group discussions with colleagues and previous literatures which are regarded as fundamental strategy for content validity (Sitzia, 1999). Moreover, pilot study was the strategy used to test the content of the questionnaire which was useful in assessing the validity of the questionnaire.

Reliability

The term 'reliability' is a concept used most often in all

kinds of research but mainly in quantitative studies, Stenbacka (2001) argues that since reliability issue concerns measurements then it has no relevance in qualitative research. However, a demonstration of the former (validity) is sufficient to establish the latter (reliability) (Morse et al., 2002)

Limitations

This study had some limitations. The data were based on responses to a subjective, self-administered questionnaire which was completed in the presence of the researchers which could bias responses in favor of lecturers because the students may deliberately give answers that are pleasing to the researchers who are their lecturers as if their negative responses will jeopardize their career. Besides, the study was focused on single point opinion and the students were expected to recall past and present experiences while filling the questionnaires. Arguably, this may not reflect the true picture of their past experiences.

RESULTS

Out of 300 questionnaires that were distributed, only 295 were retrieved for analysis giving a response rate of 98.33%. The short fall was from the year six class; only 140 out of 145 students participated in the study in that class. The demographic data showed that the age range was from 19 to 33 years. The male to female ratio was 1.2:1 (Table 1). Majority of students' 220 (74.58%) lectures were delivered using the traditional (dictation of notes) method. However, most of them 200 (67.80%) were not satisfied with this method and their preferred/commonest lecture need was the use of power point presentation during lectures (Table 2).

Majority of the students 206 (69.83%) welcomed the

Table 2. students lecture needs/ lecture delivery methods N=295 for each lecture need

LECTURE NEEDS	FREQUENCY	PERCENTAGE
Power point presentations during lectures	205	69.49
Conducive environment	195	66.10
Cordial lecturer-student relationship	169	57.29
Printed lecture notes/reference books	156	52.88
LECTURE DELIVERY METHODS USED DURING LECTURES		
Traditional (dictation of notes)	220	74.58
Power Point Presentation	54	18.31
Projector using transparency	21	7.11

Table 3. overall students' satisfaction

Over all students' satisfaction	Frequency	Percentage (%)
Lecture needs of students met		
Yes	75	25.42
No	220	74.58
Welcomed interactive sections that involved students		
Yes	206	69.83
No	89	30.17
Satisfaction with the traditional method of lecture delivery		
Yes	45	15.25
No	200	67.80
No response	50	16.95

opportunity to have a more interactive sections/involvement during lectures (Table 3). Factors that militated against learning were lack of: microphones, speakers, teaching aids, reference books and poor learning environment. Furthermore, challenges like faulty equipments and lack of power supply were encountered during some lectures where multimedia Microsoft Power Point presentations were going on.

DISCUSSION

This study revealed that the traditional method of lecture delivery was the dominant method in the clinical students lecture series. This finding was not a surprise because it appears to be the cheapest and easiest method of lecture delivery. However, the majority of students preferred lecture delivery method was the use of multimedia Microsoft Power Point presentation. This finding agrees with the works of other researchers who also found overwhelming majority of their students that preferred their lectures to be delivered using the multimedia Microsoft Power Point presentations (Seth et al., 2010).

On the contrary, a research carried out in India revealed that the use of multimedia Microsoft Power Point presentation was the least preferred method of

lecture delivery among students (Singh et al., 2009). Furthermore, an earlier study inferred that majority of students' preferred traditional teaching method to the use of multimedia Microsoft Power Point presentation (Novelli and Fernandes, 2007).

Proponents of the use of multimedia Microsoft Power Point presentation argue that students have always appreciated it during lectures. They emphasized that increased clarity of teaching material and a more engaging presentation were some invaluable benefits of using the method (Bartsch and Cobern, 2003; Lowry, 1999). Furthermore, it encourages active learning and increases effectiveness of class room lectures (Hunt, 1998). Despite the above mentioned positive effects, critics still believe it reduces the interactive discussion between teacher and students (Nicholson, 2002).

The effective usage of multimedia Microsoft Power Point presentation by lecturers depends on the availability of the equipment and the lecturer's computer skills. Besides, there could be 'technological' problems when delivering lectures using it. The commonest challenges lecturers encountered in this study were problems getting the projector or computer to 'fire up' at the start of lectures, inability to get images on screen and hardware problems (laptops crashing). In a number of cases, there was no electricity to power the equipment.

These challenges caused delay of lectures by several hours.

In addition, this study has revealed that majority of the students 206 (69.83%) welcomed the opportunity to have more interactive sections/involvement during lectures. Student involvement occurs when "students make a psychological investment in learning. They try hard to learn what the lecture offers. They also take pride not simply in earning the formal indicators of success such as good grades, but in understanding the material and internalizing it in their lives (Newmann, 1992).

This study endorses the findings of other researchers who identified student involvement/ engagement as a desirable trait during lectures and participation as an extremely crucial element for learning. It is a proven fact that students learn better and retain more when they are active participants. Students are engaged when they are involved in their work and take visible delight in accomplishing their work (Schlechty, 1994).

Price and Mitchell suggest that, "Clinical teaching and learning must be an intellectually challenging experience whereby students, through extensive interactive teaching, are able to gain thorough conceptual understanding." They also cited evidence that interactive learning was enhanced through the effective use of key teaching skills (Price and Mitchell, 1993).

Without any form of doubt, effective learning is crucial in order for students to achieve educational success in the classroom. It is clear that students always want their learning needs to be met (Aregbeyen, 2010). Unfortunately, the findings of this study revealed that majority of the students' needs were not met. This could be attributed to the factors revealed in this study that could affect the quality of learning. The lack of electricity, microphones, speakers, teaching aids, reference books and poor learning environment, will definitely affect the quality of learning tremendously. Majority of these factors especially the lack of electricity will definitely discourage most lecturers from using multimedia Microsoft Power Point during lectures. The researchers therefore were not surprised to find that the majority of lectures were delivered using the traditional method which does not solely depend on electricity.

Obviously, the factors mentioned above are not student related therefore, the concerned authorities have to sit up and tackle these challenges as soon as possible to provide an outstanding environment for good learning. Other peculiar factors that can also disrupt ongoing lectures are the use of cell phones while a lecture is going on and sleeping in the classroom by students. However, these factors were not encountered in this study. This kind of research is encouraging and will definitely create awareness among the lecturers in the College of Health Sciences of the University of Port Harcourt. It will also give room for improvement in their lectures delivery methods that will have a positive impact on the sustainability and improvement in the future of

medical education in the University.

CONCLUSION

This study established that the traditional method of lecture delivery still remains the dominant method of lecture delivery in the clinical students lecture series of the College of Health Sciences, University of Port Harcourt. The students preferred lecture delivery method was the use of multimedia Microsoft Power Point presentation and they also welcomed the opportunity to have a more interactive sections/involvement during lectures.

RECOMMENDATIONS

To improve the overall learning experience of the students, the researchers recommend that the University authority should address the factors highlighted above that militated against satisfactory learning. They should provide constant source of electricity/power, teaching aids/equipments, a good environment for learning and above all train lecturers in the use of modern teaching aids and technology.

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Appendix A: Questionnaire for study of medical student’s perception of traditional method and power point use for lecture delivery at the university of port Harcourt, Nigeria.

Good day, please kindly answer the following questions about your lecture delivery methods. This questionnaire is about your learning experiences in the College of Health Sciences, your opinion will greatly help to improve your learning and mode of lecture delivery in the College. It will take only 10 minutes of your time. Participation is voluntary. All the information that you give is completely confidential. You will not be identified in any way in the reporting of the results, Thank you for your co – operation.

A. Bio-data

Sex: Male.....	Female.....	1. Age	3. Year of study
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B. Students lecture needs and methods used by their lecturers during lecture deliveries

4. Which of the following lecture delivery methods did your lecturer commonly used during their lectures?

- (a) Power point presentation
- (b) Projector
- (c) video-linked
- (d) Traditional (note dictating)
- (e) Others specify.....

5. Do you think you understood the topic taught by the lecturer? Yes... No...

6. If no what are your reasons?

7. Was there time allotted for questions and answers? Yes..... No.....

8. What are your lecture needs?.....

C. Students overall satisfaction with the methods of lecture delivery.

9. Mention the commonest lecture delivery method used by your lecturers.....

10. You were satisfied with the above mentioned lecture delivery method used by your lecturer? Yes... No.....

11. If no give reasons.....

12. Were your lecture needs met Yes..... No.....

13. If no give reasons.....

14. Would you welcome the opportunity to have more involvement in making suggestions about the format of your lectures and mode of delivery? Yes.... No....

15. Kindly list some other observations during the delivery of the lecture which this questionnaire has not covered?

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16. General comments and suggestions for improving lecture delivering

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