International Journal of
Humanities, Education, and Social Sciences

e-ISSN : 3026-0892
p-ISSN : 3026-1422

Index : Harvard, Boston, Sydney, Dimensions, Lens, Scilit, Semantic, Google, etc

https://doi.org/10.58578/IJHESS.v2i1.2561

COMPARING LECTURE AND DISCUSSION METHODS: ASSESSMENT OF PERCEPTION OF MEDICAL LABORATORY SCIENCE STUDENTS AT SULTAN ABDURRAHMAN SCHOOL OF HEALTH TECHNOLOGY GWADABAWA, NIGERIA

Yusuf Yahaya Miya & Anas Yusuf
Galaxy College of Health Technology Bauchi, Nigeria;
Sultan Abdurrahman School of Health, Nigeria
superoxidedismutase594 @gmail.com

Article Info:

Submitted:	Revised:	Accepted:	Published:
Jan 1, 2024	Jan 8, 2024	Jan 11, 2024	Jan 14, 2024

Abstract

Medical Laboratory Science skilled workers are needed at hospital and other settings more than ever. These workers are produced by schools through teaching and learning. Medical Laboratory scholars are on many occasions involved in training and teaching. Nevertheless, nowadays teaching is been centered towards the views of learners, thus the aim of those study was to compare lecture and discussion teaching methods among students at Medical Laboratory Science Department at Sultan Abdurrahman School of Health Technology Gwadabawa with a view to select better learning method. A survey of 60 participants using a semi-structured questionnaire was done and descriptive statistics aided the analysis. Best teaching method selected by the respondents was the lecture method (100.0%); while none of them (0.0%) submitted discussion method as the method they want in learning Medical Laboratory Science. Advantages or reasons for choosing lecture method than the discussion method as submitted by the respondents are stated. The most frequently stated was "Less cost (30.0%)" then, " No tedious efforts from students in understanding lectures (26.7%)" "Give room for more research (16.7%)," " No anxiety (13.3%), " "Give room for rehearsal (8.3%)" and " Teacher give important points (5.0%)". The disadvantages of discussion (presentation) method are: Some students are in anxiety (33.3%), time

consuming (25.0%), students may have limited knowledge (20.0%), students spend more money (16.7%), and some students may easily not contribute (5.0%). Thus, lectures are suitable and better ways of making Medical Laboratory Science students that will become technicians and relations.

Keywords: Lecture Method, Discussion Method, Medical Laboratory Science, Learning, Teaching, Hospital

INTRODUCTION

Education is important in all aspects of human life. That is why humans have to be educated at both formal and informal settings alike from the start and along the course of life (Miya et al., 20223; Sarkingobir et al., 2023). At formal settings, students are made to learn through the aid of teachers and learning or teaching occurs at various schools to breed people skilled for various human endeavors (Waheed et al., 2022; Sarkingobir, 2023). Parable, Medical Laboratory Science is a field that is learnt at specific schools and breed specific skilled graduates (of different levels, ranging from assistants, technicians, scientists, associates etc) that are trained to analyze human/ animal tissues, fluids, excretions etc. Likewise, these graduates should be able to make /design biologicals, and improvise laboratory materials to serve in diagnosis or treatment of diseases, and research purposes (Sanusi, 2016).

Medical Laboratory Science is aimed to teach and train students/learners on the utilization of advanced and simple instruments, and made them capable of furnishing doctors/ other health staff with required information for infectious diseases diagnosis, interventions, identification of outbreaks, etc (Sanusi, 2016). Hospitals essentially need Medical Laboratory Science to make specialists (scientists or relations) in order that medicine practices are feasible in confirming the absence or presence, extent or level of diseases or infection (Sanusi, 2016; Obeta et al., 2019).

Nevertheless, training of Medical Laboratory Science students in their fields and instructions is an essential parcel of Science Education Program worldwide (Isabel, 2010). Additionally, many schools or learning institutions, hospitals, centers etc relied on Medical Laboratory Science scholars in teaching and training of students (at lower levels, at MSc and PhD levels). Likewise, Laboratory Scientists are expected in many engagements to lecture in many gatherings such as workshops, symposiums, and conferences (Diamandis,

2002). Consequently, learning and awareness of the best method to teach Medical Laboratory Science course is enormous to Medical Laboratory Scientists and relations (Diamandis, 2002). The importance of choosing good teaching methods is to attain learning objectives effectively (Nwaeze, 2016; Roy, 2022).

Mostly, lecture method and discussion are predominantly utilizing teaching methods in many higher institutions in the country. Lecture method involves teacher as the most active in a class orally presenting to a large or small population of learners (Kumar, 2011; Sanda & Mazila, 2017). Discussion method is frequently used when the learners are populous by dividing them into groups to complement the lectures; therewith, students (learners) have more active than the teacher (Kumar, 2011; Nwaeze, 2016; Roy, 2022).

Meanwhile, students are principal components that are always involved in learning. For effective learning to take place, students most learn properly. They have an undeniable role to play for learning to be successful (Miya et al., 2023). Therefore, they have the right to select best teaching/learning method they want. The objective of this paper was to compare the views of Medical Laboratory Science students of Sultan Abdurrahman School of Health Technology Gwadabawa (SASHTG) on the best method of teaching/learning between lecture method and discussion method.

METHODS

Study Design

There are many study methods to use in conducting studies, for the sake for this study, a survey design was applied. Survey is to collect data from a given geographical area or population at a given time with the aim of making generalization (Sarkingobir, 2023).

Population of the study

The population of this study includes all the students at the Department of Medical Laboratory Science Sultan Abdurrahman School of Health Technology Gwadabawa in the year 2023.

Data Collection Instrument

Data are always collected with the aid of a design material. In this work, a semi-structured questionnaire was used and it has three sections. Section A consider questions about the socioeconomic characteristics of study respondents, section B asked about the choice of

lecture method by the students and the reasons/ merits for that. Additionally, questions about the demerits of the disadvantageous method were asked. Experts advices were considered in correcting the questionnaire to meet up with the purpose appropriately (Ahmad et al., 2023).

Sample Size and sampling

A sample is a representative of the whole population under consideration (Waheed et al., 2021). In this work, the whole population at the Department are supposed to be considered, but students at 200 level were conveniently selected using simple random sampling strategy and a total of 60 returned questionnaires were analyzed.

Data Management

The data gathering is important, but the raw data can only be properly understood when appropriately managed. In the study, the data were managed using simple descriptive statistical tools and chi-square test. And it was delivered in form of frequency distribution tables as well.

RESULTS AND DISCUSSION

The results submitted by the participants in this study were revealed in Tables 1-4.

Table 1: Revealing the sociodemographic characteristics of respondents

Parameter	Frequency (N=60)	Percentage
Sex		
Male	40	66.7
Female	20	33.3
Religion		
Islam	60	100.0
Christianity	0	0.0
Tribe		
Hausa	30	50.0
Yoruba	10	16.7
Fulani	20	33.3
Age		
18-22	30	50.0
23-26	20	33.3

27 and above	10	16.7
Level of Study 200 Level	60	100.0

Table 1 shows that, the respondents that are from the Department of Medical Laboratory Science Sultan Abdurrahman school of Health Technology Gwadabawa, Nigeria. The respondents are at 200 level and are 100.0 Muslims, 0% are Christians; 33.3% are Fulani, 50.0% are Hausa, and 16.7% are Yoruba; 66.7% are males, and 33.3% are females. In terms of age, 50.0% are 18-22 years old, 23-26 years old are 33.3% of the respondents, and 16.7% are 27 and above years old.

Table 2: Revealing the lecture method was chosen over discussion method of teaching/learning Medical Laboratory Science at SASHTG as submitted by the students

Which method (lecture or discussion) do you like best in teaching/ learning Medical Laboratory Science at SASHTG?	**Frequency (N=60)**	**Percentage**
Lecture method	60	26.7
Discussion method	0	0.0

Table 2 shows the best teaching method selected by the respondents. They stated that, lecture method is the method they want (100.0%), while none of them (0.0%) out of the 60 respondents submitted Discussion Method as the method they want in learning Medical Laboratory Science. Nevertheless, Okoro & Haruna (2006) reiterated that, Lecture Method is useful in many ways such the uses enumerated as follows: Useful in introducing new ideas or concepts, useful in instigating students to read or research widely, useful in covering a wide array of subjects or areas, useful in allowing students to learn uniformly, encouraging note taking, and the teacher possessed full control of the learning scene as well (Okoro & Haruna, 2006). Probably, students involved in this study avoid discussion method due it's demerits such as cost involved in making presentations (such as research costs, browsing cost, typing cost etc), time consuming nature of the method, anxiety of facing colleagues and teachers during presentation, and non-uniform learning outcomes

(Roy, 2022). Therefore, good lectures methods should be embraced to teach Medical Laboratory Science at SASHTG for effective learning to take place and attainment of objectives to see the light of the day and consequently refurbish the public with better Medical Laboratory Scientists/Scholars.

Table 3: Revealing the advantages/ reasons for choosing lecture over discussion method of teaching Medical Laboratory Science at SASHTG as submitted by the students

Advantages/ reasons for choosing lecture over discussion method of teaching Medical laboratory Science at SASHTG as submitted by the students involved in the study are as follows:	**Frequency (N=60)**	**Percentage**
To tedious effort to understand the lesson/ lecture (learning instruction)	16	26.7
Less cost	18	30.0
Give room for more research	10	16.7
No anxiety in learning	8	13.3
Give opportunity for rehearsal	5	8,3
Teacher give important points	3	5.0

Table 3 shows advantages or reasons for choosing lecture method than the discussion method as submitted by the respondents. The most frequently stated was " Less cost (30.0%)" then, " No tedious efforts from students in understanding lectures (26.7%)" " Give room for more research (16.7%)" " No anxiety (13.3%) " " Give room for rehearsal (8.3%)" and " Teacher give important points (5.0%)". These findings in Table 3 are similarly reported in Haruna & Okoro (2006). Haruna & Okoro (2006) submitted that " uniform learning, note-taking, encouraged reading, large population, and treatment of vast ideas are some of the merits of lecture method of teaching. Kaur (2011) submitted that lectures are simple and easier to implement, flexible, and efficient teaching methods in many subjects' areas and among many students as well. Roy (2011) describe lecture as "The

lecture method, thus, maybe considered as one of the most efficient teaching methods for presenting facts and ideas in a short time and also it is the most suitable and convenience for introducing a subject and instructing large groups of people." Nwaeze et al., (2016) describe lecture in this way " It does not take much of the teachers' time. The teacher can pass much information across within a short time since it is a one-way flow."

Table 4: Revealing the disadvantages of discussion method in teaching Medical Laboratory Science at SASHTG as submitted by the students involved in the study

Disadvantages of discussion method in teaching Medical Laboratory Science at SASHTG as submitted by the students involved in the study are as follows:	**Frequency (N=60)**	**Percentage**
Some students face anxiety due to presentations	20	33.3
Time consuming	15	25.0
Students may have limited knowledge	12	20.0
Students spend more money in developing discussion method	10	16.7
Easily, some students may not contribute in the process	3	5.0

Table 4 shows the disadvantages of discussion methods of teaching as opined by the respondents at the Department of Medical Laboratory Science students. The responses are as follows: Some students are in anxiety (33.3%), time consuming (25.0%), students may have limited knowledge (20.0%), students spend more money (16.7%), and some students may easily not contribute (5.0%). Accordingly, Ukoro & Haruna(2006) submitted that, discussion method involves planning, inconsistencies, favorable environment is needed, and preparations are required among other things. It is a method engulfing much time, inappropriate in some subjects learning, difficult in larger population learning, some vocal students may hijack the learning process (Okoro & Haruna, 2006). Nwaeze et al., (2016) submitted some disadvantages of discussion teaching method as follows: " It is more time

consuming. The teacher needs to be a good facilitator to lead an effective discussion. Discussions are likely to become disorganized or irrelevant, if not properly guided. Some students may not function effectively in a class where much of the time is devoted to student discussion, due to shyness or other factors."

CONCLUSION

Considering the vast uses of Medical Laboratory Science in the delivery of modern healthcare, students have to be properly trained to work in various (such as hospitals) using effective teaching methods. Thus, this study compared the lecture and discussion methods among medical laboratory science students at Sultan Abdurrahman School of Health Technology Gwadabawa, Nigeria. The study unveiled that students view lectures as better compared to the discussion teaching method. Thus, lectures are suitable and better ways of making Medical Laboratory Science students that will become technicians and relations.

REFERENCES

Ahmad, F., Waheed, S. A., & Gilani, N. (2023). Procedural Requirements: Storied Experiences of Doctoral Students after Submission of Dissertation. *Journal of Education & Humanities Research (JEHR), 15*(1), 136-146.

Diamandis, E.P. (2002). Duties and responsibilities of laboratory scientist. *Clinical Chimica Acta*, 319,111-115.

Isabel, J.M. (2010). Preparing clinical laboratory science students with teaching skills. *Clinical Laboratory Practice,* 23(3),3-13.

Kaur, G. (2011). Study analysis of lecture model of teaching. *International Journal of educational Planning and Administration*, 1(1),9-13.

Miya, Y.Y., Dambam, S.A., Abdulkareem, J.H., Sarkingobir, Y., & Yabo, A.M (2023). Anxiety Effect On Students and Performance in Biology: A Case Study Among Secondary Schools in Sokoto City, Nigeria. *International Journal of Indonesian Education and Teaching,* 7(1), 1-8.

Nwaeze, E.U.C., Onuaha, R.C., Ukogo, I. (2016). Innovative teaching methods in Science Education for junior secondary school basic science students. *Journal of Teacher Perspective*, 11(2),1-10.

Obeta, MU., Maduka, K.M., Ofor, I.B., & Ofojekwu, N.M.J. (2019). Improving quality and cost diminution in modern healthcare delivery: The role of the Medical Laboratory Scientists in Nigeria. *International Journal of Business and Management Invention*, 8(3),08-19.

Okoro, R.U.& Haruna, M.J. (2006). Introduction to principles and practice of education for NCE and undergraduate students. But-Bass Educational Books, Sokoto, Nigeria.

Roy, S. (2022). Teaching methods and strategies. *Journal of Emerging Technologies and Innovative Research,*9(11),496-500.

Sanda, A.A. & Mazila. E.A. (2017). The effect of lecture and discussion methods of teaching on learners performance in social studies in continuing education institution Borno state, Nigeria. Frontiers of Knowledge Journal Series *International Journal of Education and Educational Research*,1(1),1-40.

Sanusi, R.S. (2016). Role of medical laboratory science in maternal and child health- A review. *Bayero Journal of Medical Laboratory Science*,1(1),102-112.

Sarkingobir, Y. (2023). Exploratory Study On Selected Heavy (Lead, Cadmium, Chromium, Nickel, Zinc, Iron) And Non-Heavy Metals (Sodium, Potassium, Calcium, Magnesium) In Popular Substances/Drugs (Cigarette, Cannabis Alcohol, And Cough Syrup) Abused/Used by Youth in Sokoto Metropolis, Sokoto State, Nigeria. A Doctor of Philosophy Submitted at The Department of Public Health Crown University Int'l Chartered Inc. In Santa Cruz in Argentina: Rio Gallegos, Santa Cruz, Argentina.

Sarkingobir, Y., Waheed, S.A., Abubakar, M., & Gilani, N. (2023). Plastic waste materials in a classroom environment: An assessment of nursery classes in Sokoto state, Nigeria. *Pakistan Journal of Social Science*, 43(2), 217-226.

Waheed, S. A., Gilani, N., Raza, M., & Sharif, S. (2022). Understanding Students' Experiences of Lived Space in Schools: A Phenomenological Perspective. *Journal of Research and Reviews in Social Sciences Pakistan, 5*(2), 1764-1776.

Waheed, S.A., Gilani, N., & Noor, N. (2021). Newly inducted and experienced teaches working relationships: what can they learn from each other?. *Global Sociological Review*, 6(1), 23-30.