

## The Benefits of Tutorials In Medical Education: Anatomical Science courses as A Case Study

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### Abstract

**Background:** Tutorial is an interactive class taught by a tutor to students at university or college, individually or in small groups. It has encompassed major teaching-learning way out in basic science of medical education. Anatomy as a course is a broad course of study for undergraduate medical students because it envelope; Histology, Gross Anatomy, Embryology, Neuro-Anatomy, Medical Genetics, etc as Five in one course which has been a major challenge to undergraduate medical students.

**Aim:** To evaluate the impacts of the tutorial on the performance of undergraduate medical students in Anatomical Sciences courses.

**Method:** A cross-sectional study was conducted among 3rd year M.B.B.S students at the University of Abuja offering Anatomy course. A tutorial section was conducted earlier among forty-nine (n=49) undergraduate medical students, at the end of the tutorial an examination was conducted and data were collated from their results in Anatomy from the Department Of Anatomical Sciences, University of Abuja, Nigeria. The results were analyzed using statistical analysis.

**Results:** All the students that repeated, attended the tutorial and passed the exam, which account for 29% (n=14) of the total number (n=49). This shows that tutorial affects their psychology positively.

- 61% (n=30) of the fresh students passed the exam.
- 10% (n=5) of the fresh students failed the exam.

**Conclusions:** Conclusively, undergraduate medical students felt that the tutorial has been of great help for their better performance in Anatomy course.

**Keywords:** Medical Education; Anatomy; Tutorial; Anatomical Sciences Department, University of Abuja.

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### I. Introduction

Tutorial, one of the oldest yet equally significant teaching methodologies today, was formally established 130 years ago as a cornerstone of Education at the University of Oxford. The Oxford tutor was described as "having responsibility for the conduct and instruction of their young colleagues"<sup>[1]</sup>.

Anatomy is usually considered to be the 'foundation of medical sciences'<sup>(2-4)</sup>, but it is also perceived to be an onerous and challenging subject in medical education<sup>5</sup>.

Anatomy as a course is a broad course of study for basic medical science students because it envelope; Histology, Gross Anatomy, Embryology, Medical Genetics, Neuro-Anatomy as a Five in one course in which systematic approach of teaching is widely used.

Undergraduate medical students during tutorials are equipped to develop and test their ideas with a level of understanding of the concept taught by the lecturer, define new problems, seek solutions, develop problems solving skills and evolve in self-learning.

Learning is unidirectional from teacher to student, but multidirectional, including tutors, other students and professors. The student receives guidance and support from others<sup>6</sup>.

Responsibility for learning should be placed on the student, with the instructor's role shifting from lecturer to facilitator. From the student's point of view, the main characteristics for a good tutorial are tutors allowing enough time for discussion, accepting students as partners, refraining from interference and having expertise<sup>7</sup>. It has students that the component of a rich learning environment is stimulation by classmates, a knowledgeable and creative faculty and a large amount of personal contact between students and instructors.<sup>8</sup>

Most of the current teaching techniques are didactic involving less student participation and the knowledge is imposed on the students. Using the current trend techniques, the lesson taught to students is not skill-oriented, and therefore, although we are producing good number of health workforce but are unable to meet the needs of the community.<sup>9</sup>

**II. Method**

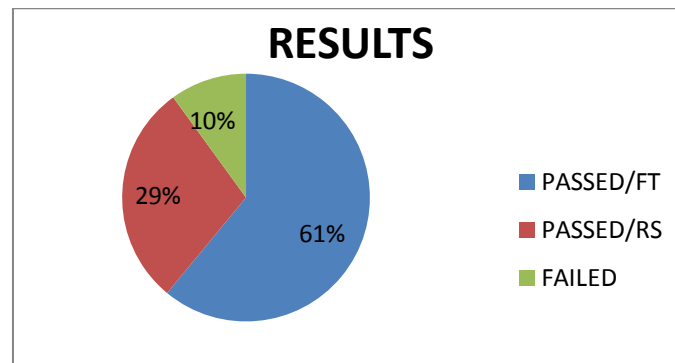
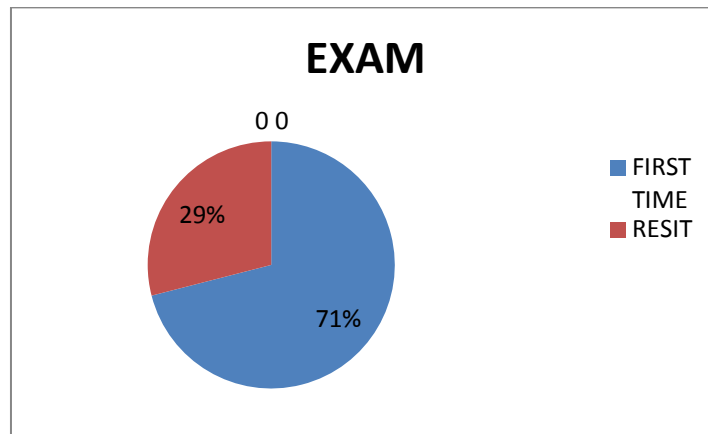
An examination was conducted in Anatomy course after the tutorial for MBBS students of the University of Abuja, Forty-nine (49) students attempted the Anatomy in course examination in which fourteen(14) students resit for the examination, thirty-five (35) students attempted the examination for the first time. Data was collected from their results using Microsoft Excel

**III. Result**

Among forty-nine students(49) that participated in the tutorial and attempted the examination, forty-four (44){90% } students passed the examination; In which among the passed students were fourteen students(14){ 29% } that resit and thirty (30){61% } that wrote the examination for the first time and five(5) (10% )students failed.

**TABLE 2:**

VARIABLES	FIRST TIME STUDENTS (%)	RESIT STUDENTS (%)	TOTAL
ATTEMPTED	35(71%)	14(29%)	49
PASSED	30(61%)	14(29%)	44
FAILED	5(10%)	0	5



**IV. Discussion**

Today, the most common teaching-learning method used in medical Education is a didactic lecture. A traditional lecture does not encourage the fruitful participation of students and does not promote interaction among teachers and students<sup>8</sup>. A tutorial is mostly interactive in which the peak of the contributions comes from the learner. A learner synchronizes the knowledge gained in lectures into logical and pragmatic framework that assists in clinical issues. It monitors reading on the part of the students with parallel guidance from the lecturer. Students were tutored in various courses in Anatomy which include; Gross Anatomy, Histology and Embryology toward their MBBS examination and at the end, an examination was conducted. The range for the pass is between (50-100) marks while failis below 50 marks All the students 14(32%) that resit for the examination passed which shows tutorial positively affect their psychology and boost morale.

30(67%) that wrote the examination for the first time passed which attest to the positive effect of tutorial and 5(10%) among those that sat for the examination for the first time failed.

MJS Dawane et al and G sivagnanam also found that students prefer tutorials than a lecture as a teaching-learning method<sup>10</sup>.

## V. Conclusion

In conclusion, the medical undergraduate students attest that tutorials are an efficient way of a teaching-learning process which boosts the psychology of failed students for better performance.

Pragmatic understanding of the subjects is achieved among students with this method of teaching.

Tutorial brings about close interaction between tutors and students where the tutor knows each student better because of the relaxed environment compare with normal lecture room environment. This gives room for the tutor how to help each student in their various area of weaknesses.

It also gives room for brainstorming and development mnemonics for better understanding and remembrance of some important points.

Conclusively, tutorial needs to be included as part of the frequent teaching method for undergraduate medical students.

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