



## A BOON TO THE STUDENTS FOR LEARNING

## Physiology

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## ABSTRACT

**AIM:** The objective of present study is to know the percentages of incidences of students on impact of learning through tutorials.

**PLACE OF STUDY:** This study was done in the department of Anatomy, at Nepalgunj Medical College, Nepalgunj, Nepal.

**PERIOD OF STUDY:** From 1999 to 2004, this study was done for a period of five years.

**MATERIALS AND METHODS:** Students of 1st year M.B., B.S of Nepalgunj Medical College, Nepalgunj, and Nepal constituted for the present study. This method of teaching involves small groups where individual attention is being given to all students, questions were asked, and corrections were made and advised to study again. Classes were taken twice a week for 90 minutes (one hour and thirty minutes.) in all the subjects.

**OBSERVATIONS AND RESULTS:** When the study was done in tutorials, it was observed that 78% of students liked it very much and showed interest and improvement in the subjects. 14% showed difficulty in understanding and answering even though they had interest to study, while rest of students remained neutral due to lack of interest and difficulty in understanding.

**CONCLUSION:** Students felt this method of learning was more beneficial and popular because it was a small group teaching where individual attention was given to all students.

## KEYWORDS

Unique method, small group teaching, individual attention, impact of learning.

## INTRODUCTION:

Students of medicine gain knowledge and skills by various methods of teaching and learning more so on problems and their solutions. Active process is learning and facilitator is tutor.[1]. Environment of learning that is given for students during tutorial classes gives immense knowledge, power of thinking and opportunity to learn.[2] Tutorials done on clinical side gives opportunities for teaching bed side clinics and also for teachers[tutors] ,a great value of medical profession ,imparts knowledge and renders clinical skills.[3] .63% of Students of clinical tutorials of Central Clinical School, Sydney Medical School, The University of Sydney, Sydney, NSW, Australia; felt that bed side was best place to learn the skills Patients enjoy bed side teaching [4].The learning environment of the students was improved by the "enthusiastic" and "encouraging" tutors as observed by students of Medicine in the above institution in Australia[5].

**MATERIALS AND METHODS:** Tutorials was taken for students of first year M.B., B.S at Nepalgunj Medical College, Nepalgunj, Nepal. Study was done from 1999 to 2004, a five year study was done .60 students were taken for the study and were told to attend tutorial classes. All students attended with great enthusiasm, showed interest in learning and tried to answer well..Some students felt difficult to understand and to answer the questions. After the classes the standard questionnaire was given and we did the evaluation at three monthly intervals in each batch .Based on this, 3 groups were classified .Then

feedback form was given to students regarding the quality of the tutorials taken. Feedback forms were collected and assessed.

**OBSERVATIONS AND RESULTS:** It was observed that all students liked the tutorial classes very much .Whole class for one year was grouped into 3 monthly basis and assessment used to be taken at the end of each 3 months . In present study Tutorials were conducted to the students for five batches of I]1999-2000, ii]2000-2001, iii]2001-2002, iv]2002to 2003, v]2003 to 2004 batches. Every year ,there were 60 students whose assessment used to be taken on 3 monthly basis

**In 1999-2000 batch,--** Excellent category has increased in percentage from 65 to 71 while average and poor category has decreased.

**2]2000-2001, batch—** Excellent category has increased in percentage from 67 to 72 while average and poor category has decreased

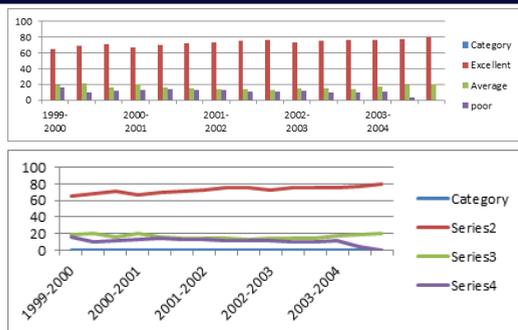
**3]2001-2002 batch—** Excellent category has increased in percentage from 73 to 76 while average and poor category has decreased

**4]2002-2003 batch—** Excellent category has increased in percentage from 73 to 76 while average and poor category has decreased

**5]2003-2004batch:** Excellent category has increased in percentage from 76 to 80 while average and poor category has decreased

Category	1999-2000			2000-2001			2001-2002			2002-2003			2003-2004		
	1 <sup>st</sup> 3 monthly	2 <sup>nd</sup> 3 monthly	3 <sup>rd</sup> 3 monthly	1 <sup>st</sup> 3 monthly	2 <sup>nd</sup> 3 monthly	3 <sup>rd</sup> 3 monthly	1 <sup>st</sup> 3 monthly	2 <sup>nd</sup> 3 monthly	3 <sup>rd</sup> 3 monthly	1 <sup>st</sup> 3 monthly	2 <sup>nd</sup> 3 monthly	3 <sup>rd</sup> 3 monthly	1 <sup>st</sup> 3 monthly	2 <sup>nd</sup> 3 monthly	3 <sup>rd</sup> 3 monthly
Excellent	65	69	71	67	70	72	73	75	76	73	75	76	76	77	80
Average	19	21	16	20	16	15	14	14	13	15	15	14	17	19	20
poor	16	10	12	13	14	13	13	11	11	12	10	10	11	4	0

From the above study, it is observed that there gradual increase of percentages in students performance and gradual decline in poor performance. This study revealed steady improvement and in their interest ff



**DISCUSSION:** Small group teaching is the method of teaching in the tutorials. There should not be more than ten students for one teacher [6]. A student led group classes was introduced in physiology to improve skills and attitude and compared with that of traditional tutorial classes in the Department of Physiology, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka [7]. In Sri Lanka, there is shift from traditional method of teaching to problem-based learning tutorials (PBL), small group discussions (SGD), seminars by students seminars by staffs, poster sessions, dramas, debates, field-based teaching. Assessment of students are done by stream examinations and module examinations, Stream examination are being tested by Attitude of knowledge and skills [8]. Hemalata et al conducted study by obtaining feedback on methods of teaching and methods of evaluation in physiology from two successive batches of students. A written questionnaire on various topics was given. The students were very happy with all methods of teaching but they were not happy with integrated seminars (9). Kavita sekhri conducted study on students on teaching methodology in pharmacology by lectures, oral discussions, active learning and seminars in dental college for second year. The study showed students preferred teaching by lectures in 47% and active learning by 29% and 49% by LCD projections during class hours [10]. Shreemanta Kumar Dash et al conducted study at KIMS, Bhuvanagar on teaching methods and evaluation was done by selecting 337 students from 4 semesters in the study. The responses were collected from the students. The study showed topics of the lectures was interesting in 51.83% and tutorials in 72.02%, i.e., effective method of teaching followed by group discussion in 68.2%, vis. a. vis. tutorials scored better than lectures for doubt removing amongst students and had a better interaction and hence a outcome. Among the faculty members, 67.07% there was good communication skills and easily approachable faculties were 62.96%. 82.83% preferred blackboard teaching and audiovisual is in 57.87%. The students preferred 56.10% more practical classes than theory classes [11]. R. Prahan Kumar conducted cross sectional study on 71 students of medicine of 7<sup>th</sup> semester at Pondicherry Institute of Medical Sciences [PIMS], Puducherry. The students were divided into 6 groups, hand out were distributed and tutorial classes were conducted to all groups by the Department of community medicine by trained teacher by pretested questioner. Study showed that in 63.4%, students understood well in tutorial, in 69% time management was good, in 77.5% was more interactive when compared to teaching in the class. So medical under graduates felt that Tutorial is an effective method of learning and teaching [12]. In the study done by MJS Dawane et al & G. Sivagnanam, they found tutorial was better method of teaching and learning and very effective than traditional method of teaching which was preferred by the students [13, 14]. In the study done by Shah et al, 65.3% of students preferred tutorials as useful method of teaching when compared to lecture to any topic given [15]. Tutorial classes were conducted in physiology for first year MBBS students of two consecutive batches at Nilratan Sircar Medical College, Kolkata. A deviation in teaching-learning method was made use of. For 2009 - 2010 batches and 2010-2011 batches. To the both batches, clinical case history based modules were conducted. Students of second semester underwent examinations. Their examination were based on questions of clinical case histories in 25% while 75% were on non-case pattern. Significant performance difference was observed in both the batches. The performance was good for the batch of 2010-2011 in second semester examination [16].

## PRESENT STUDY:

In present study Tutorials were conducted for the students of five batches of 1999-2000, 2000-2001, 2001-2002, 2002 to 2003 to 2004 batches. Each of 60 students was divided into three groups. Tutorial was conducted for 90 minutes [one hour thirty minutes] on alternate days in the afternoon between 3.30 pm - 5.00 PM. Topics were given for the and discussion. Attendance of students was very good. Day by day their performance improved and was confident to face the university examination of Katmandu University, Nepal. By the tutorials, students developed interest in learning and in interacting with teachers. By this method, their memory power improved and performance in university examined also shown remarkable improvement. The Pearsonian coefficient between excellent and average category and average and poor category are (-0.303) and (-0.333) respectively, i.e. they are negatively correlated meaning to say with the increment in tutorial classes number in the EXCELLENT category has increased with the decrease in AVERAGE and POOR category. Likewise more number in the POOR category came into AVERAGE category with the tutorials classes. EXCELLENT > AVERAGE > POOR

**CONCLUSION:** Tutorial method of teaching has shown tremendous improvement and has gained great confidence in their minds to face examination. Tutorials score over didactic lectures, group discussion and seminars because smaller group is more manageable group with better interaction amongst teachers and students, so were more impactful for students who were more attentive.

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**TAKE HOME MESSAGE :** Tutorial has made tremendous impact and interesting in minds of learners, hence it has been studied and reported.

**There was no difference in opinion among the authors**

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