

## Assessment of material, methods and schedule of undergraduate dental classes in a rural medical college of West Bengal.

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**Abstract: Introduction:** In modern times, with the technological advancement, there is a trend of diminishing attendance in theory classes among undergraduate students. To improve the attendance in the classes, it is vital to know the time pattern of classes, nature of material used for teaching learning, method of conducting classes and scope for discussion. **Objectives:** The study was aimed at describing the time pattern, materials used, methods followed and attendance in undergraduate Dental Classes. **Methodology:** It is a descriptive, cross-sectional study, conducted at North Bengal Dental College, Sushruat Nagar, Darjeeling, West Bengal in August 2017. Class representative were assigned to collect data from 32 consecutive classes on 17 subjects using a pre-designed & pre-tested data collection form. **Result:** Among 32 classes, 68.75% started in scheduled time, 59.38% classes ended exactly on time and 53.13% classes held exactly for scheduled duration. 84.38% classes used lecture method, 15.62% were by two-way interaction. In 87.5% classes only blackboard & chalk were used, in each of 3.13% classes LCD projector and overhead projector were used and 6.25% classes used model along with blackboard-chalk. 75% students complied the university norm of minimum 75% attendance. **Conclusion:** Schedule of the classes should be maintained along with more uses of two-way method, discussion and electronic materials to bring about attractiveness in the teaching learning process.

**Key Words:** Material & methods, Schedule, Undergraduate dental classes, West Bengal.

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### I. Introduction

Education is the backbone of all societies. Different methods, materials are used for teaching learning process since ancient times. Schedule & duration of classes also differ in different places. Lecture Classes play important role in undergraduate Dental Education. Theoretical part of dental sciences is taught in lecture classes. Theoretical knowledge forms the basis for practical sessions. In modern times, with the technological advancement, there is a trend of diminishing attendance in theory classes among undergraduate students. To improve the attendance in the classes, it is vital to know the time schedule and duration of classes, nature of material used for teaching learning, method of conducting classes and scope for discussion at the end of lecture. Though, several studies were found to see the usefulness of different modern methods and media of teaching learning process,<sup>1-11</sup> none found to examine the time pattern.

With this background, the present study was conducted with the objective of assessing the material and methods along with time schedule, duration and attendance of students in undergraduate dental classes in North Bengal Dental College, a premiere rural dental college of West Bengal.

### II. Methodology

It is a descriptive study, cross-sectional in design conducted at North Bengal Dental College, Sushruat Nagar, Darjeeling, West Bengal in August 2017 with the objectives of describing the time pattern of classes, materials used & methods followed in classes along with attendance of students in undergraduate Dental Classes. Lecture classes on 17 subjects for undergraduate Dental students were taken under study. 32 such consecutive classes taken for study. The class representatives were assigned to collect data using a pre-designed & pre-tested data collection form. Data was analysed in excel workbook in computer.

### III. Result

The current descriptive, cross-sectional study was done at North Bengal Dental College, one of the premiere Government rural Medical Colleges of West Bengal. Here the unit of study was different undergraduate dental classes. Total 32 classes of 17 different subjects were examined of which 6 was on Dental

Anatomy, 4 on Oral Pathology, 3 on Periodontia and Pharmacology each, 2 on General Medicine, Operative Dentistry, Pathology each, 1 for Dental Materials, Endodontics, General Surgery, Microbiology, Oral surgery, Orthodontia, Paediatric dentistry, Preclinical conservative, Preclinical Prosthesis, Prosthodontics each. Regarding punctuality of starting time as per schedule, 22(68.75%) classes were started in time, 1(3.13%) was 1 minute late to start, 6(18.75%) were late by 5 minutes, 2(6.25%) were late by 10 minutes and 1(3.13%) was as late as by 20 minutes. (Figure-1). Considering end time of classes, 19(59.38%) classes ended exactly on scheduled time, 6(18.75%) were ended before time and 7(21.88%) ended late. 2(6.25%) classes ended 37 minutes before scheduled time, 1 each by 30, 15, 10 and 2 minutes earlier. Among late ended classes, 2(6.25%) was ended late by 5 minutes, 1(3.13%) each late by 1, 4, 8, 12, 30 minutes. Regarding duration of classes, 24(75.00%) classes were scheduled for 1 hour and remaining 8(25.00%) were for 2 hours. Among 1 hour scheduled classes, 15(62.5%) classes held for scheduled duration, 3(12.5%) before and 6(25%) beyond schedule hour. Among 2 hours duration classes, 2(25%) classes held for exact duration and 6(75%) held less than schedule duration. Overall, 53.13% classes held exactly for scheduled duration. (Table 1)

There was no discussion after lecture in 26(81.25%) classes. Discussions of 1 – 30 minutes duration were there in remaining 6(18.75%) classes.

In 31(96.88%) classes attendance were taken within scheduled duration of classes and in 1(3.12%) it was outside scheduled duration. In 31(96.88%) classes' attendance of students were taken by teacher in attendance register and in 1(3.12%) class it was taken by teacher but not in register.

Regarding method used by teacher for holding classes, 27(84.38%) classes used lecture method, 5(15.62%) were by two-way interaction. (Table 2)

In 28(87.5) classes teacher used only blackboard & chalk, Over head projector and LCD projector were used in each of 1(3.13%) classes along with blackboard and 2(6.25%) classes used model along with blackboard. (Table 2)

As per university norm, students are required to attend at least 75% of classes held for appearing in the board examination. In the current study, 24(75%) students complied the norm; mean being  $79.97 \pm 60.38\%$  and range 8.33-100%.

Among 32 classes under study, after 8(25%) classes other scheduled classes were there. After 2(6.25%) classes teacher and students were found waiting outside the class.

#### IV. Discussion

The current study was conducted to assess the observance of class schedule, use of different method and media for undergraduate dental classes in an eminent rural medical institution of West Bengal. It was also aimed to see the attracting capacity of the classes to the dental students, measured by attendance of students. It is a time when there is a revolution in method and media in relation to teaching learning process when interactive learning<sup>1,3</sup>, interactive simulation material<sup>2</sup>, social media<sup>5,6,7,8,9</sup>, inverted classroom method<sup>10</sup>, online learning<sup>11</sup> are the buzzwords. Several studies are conducted to examine the newer method & media<sup>1-11</sup>. Standing in this time, the current study findings showed use of traditional one-way lecture method, blackboard- chalk as predominant material used and less discussion in the class. Unsatisfactory attendance in the classes also indicates inadequate attractiveness of the classes.

#### V. Conclusion

In the present study, lecture method with inherent limitation of one-way delivering of lesson was mostly used along with age old chalk & talk method. Few classes used modern amenities like Overhead projector, LCD projector or models to make the classes more attractive to the students. Few classes had discussion after lecture. As high as one quarter of the classes failed to hold at least 75% attendance. Based on the above scenario observed in the present study, it can be said that punctuality of the classes in part both of students and teachers should be maintained along with more uses of two-way method, discussion and electronic materials to bring about attractiveness in the teaching learning process.

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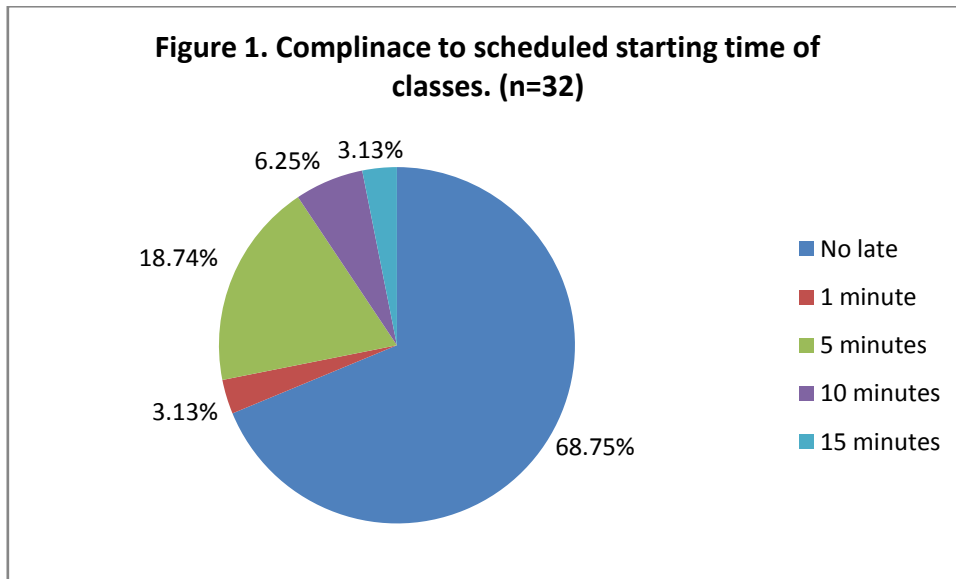
**Table & Diagram:**

**Table -1.** Frequency distribution of holding time of classes.

Scheduled time of classes(in minutes)	Holding time of classes (in minutes)	No.(%)
60	53	1(3.13)
	55	1(3.13)
	59	1(3.13)
	60	15(46.88)
	65	2(6.25)
	67	1(3.13)
	68	1(3.13)
	78	2(6.25)
120	90	2(6.25)
	95	1(3.13)
	105	1(3.13)
	110	2(6.25)
	120	2(6.25)
	<b>Total</b>	<b>32(100.00)</b>

**Table -2.** Materials and methods used in classes under study. (n=32)

Materials & Methods used for classes	No.(%)
<b>Methods</b>	
Lecture	27(84.38)
Discussion	5(15.62)
<b>Materials</b>	
Blackboard & Chalk	28(87.50)
Blackboard-chalk & Over head projector	1(3.13)
Blackboard-chalk & LCD projector	1(3.13)
Blackboard-chalk & Model	2(6.24)



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