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# Use of computer assisted teaching learning methods and internet among the teachers in a Medical College

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**Abstract**
**Background:** *The aim of present study is to know the extent of the use of computer based teaching learning methods and internet among the teachers in Medical Education.*
**Materials and Methods:** *A questionnaire based study was conducted among the faculty members of SUT Academy of Medical Sciences, Thiruvananthapuram, Kerala. Questionnaire contained information like use of computer, power point and internet in addition to the basic information like age, sex, designation and department.*
**Results:** *Out of the 104 faculty members 55 were females and 49 were males. 65faculty members were belonging to the age group of less than 40 years. Among the 104 faculty members, 4 faculty members (03.85%) have not learned computer at all and are not using it for any personal and teaching purposes. 36(34.62%) faculty members used only power point as their media in the present study and 77.96 % of faculty members used power point alone. The purpose of use of internet by the faculty members is also studied.*
**Conclusion:** *Computer based teaching learning methods have almost replaced the traditional methods of teaching. Almost all faculty members uses internet for gathering information and also to collect material for teaching in addition to mailing purpose.*
**Key Words:** *Medical Education, Power point, teaching learning methods.*

## Introduction

Computer assisted learning is defined as using the computer technology to assist, augment or deliver part or all of the instruction or course and also to evaluate the student progress.[1] Power Point slide presentation with the help of a computer and LCD projector have now almost replaced the other methods of teaching including the traditional slide show with a conventional projector, overhead transparencies with an overhead projector and the chalk and back board.

Internet is the largest store of information and it can help medical teachers to gain and share information about various aspects of education.

The use of computer and internet by the public and educational community has increased over the past two decades. With regard to use of computer and internet many studies have shown that medical students are the regular users of such Medias.[2,3,4] Literature showing the use of computer assisted learning methods and internet among the medical teachers in India is very few. Hence a study has been conducted in a medical college to know the extent of the use of computer based teaching learning methods and internet.

**Materials and Methods**

A questionnaire based study was conducted among the faculty members of SUT Academy of Medical Sciences, Thiruvananthapuram, Kerala. Tutors, Assistant Professors, Associate Professors and Professors of all the departments were included in the study. Junior residents working in the hospital side were not included. In addition to the basic information like age, sex, designation and department, the questionnaire contained information like use of computer, power point and internet.

Ethical approval for the study was obtained from the institutional research and ethics committee. The data was analysed by Microsoft excel and by SPSS- Statistical Package for Social Sciences.

**Results**

Demographic profile of faculty members who participated in this study is shown in table-1. Out of the 104 faculty members 55 were females and 49 were males. 65 faculty members were belonging to the age group of less than 40 years.

**Table:1** Baseline characteristics of the study population

| S.No | Characteristics | Number | Percentage |
|---|---|---|---|
| 1. | Age group | | |
| | Up to 40 years | 65 | 62.50 |
| | 41 to 60 years | 14 | 13.46 |
| | Above 60 years | 25 | 24.04 |
| 2. | Gender | | |
| | Male | 49 | 47.12 |
| | Female | 55 | 52.88 |

Tabel-2 shows the rank wise distribution of faculty members

**Table: 2** Rank of teachers

| Rank of teachers | Number | Percentage |
|---|---|---|
| Tutor | 10 | 09.62 |
| Assistant Professors | 61 | 58.65 |
| Associate professors | 13 | 12.50 |
| Professors | 20 | 19.23 |

Out of the 104 faculty members, 4 faculty members (03.85%) have not learned computer at all and are not using it for any personal and teaching purposes. They use black board and Over Head Projector for teaching.

Table-3 shows how teachers use computer assisted teaching learning methods in teaching.

**Table: 3** Use of computer for teaching

| Methods | Number | Percentage |
|---|---|---|
| No power point at all | 08 | 07.69 |
| Selected topics through power point | 60 | 57.69 |
| Power point only | 36 | 34.62 |

The purpose of use of internet by the faculty members is also studied and shown in Table-4

**Table-4** Pattern of use of internet

| Methods | Number | Percentage |
|---|---|---|
| Never uses internet | 04 | 03.85 |
| Uses internet for mails only | 02 | 01.92 |
| Uses internet for mails, to gather information and to collect material for teaching | 98 | 94.23 |

Use of any other computer assisted teaching learning methods was also included in the questionnaire and 8 faculty members( 07.69%) were using computer assisted teaching learning methods other than power point like multimedia, videos and CD/DVD. None were found using e-learning and M-learning.

**Discussion**

The present study evaluated the awareness and utilization of internet and a computer assisted teaching learning methods among the faculty members in a medical college in south India. According to Devitt and Palmer [5], it is possible that suitably prepared computerised materials will be used to replace traditional styles of teaching,

namely the lecture, tutorial and practical class. This study was conducted to know to what extent it has happened in a Medical College.

Regarding the study participants out of the 104 faculty members 55 were females and 49 were males. 65faculty members (62.50%) were belonging to the age group of less than 40 years. 14 (13.46%) belonged the age group of 41 to 60 and 25 (24.04%) belonged to the age group of above 60 years. There is an uneven distribution in the number of faculty members partly because the pattern of Medical Council of India and also few faculties have not participated in the study. A similar study conducted in North India showed similar type of uneven distribution[6]

Out of the 104 faculty members, 4 faculty members (03.85%) have not learned computer at all and are not using it for any personal and teaching purposes. They use black board and Over Head Projector for teaching. Most of the faculty members (57.69%) teach selected topics through power point and in addition they use traditional methods like black board and Over Head Projector. Different studies show that a combination of power point along with black board is better than power point alone.[7] 36 (34.62%) faculty members used only power point as their media in the present study. This is in contrast with the study conducted in another institution where only 22.03 % faculty members used combination of power point and other traditional methods and 77.96 % of faculty members used power point alone [6]. One study conducted in Lucknow showed that the students preferred power point teaching over the other teaching aids.[8]

In the present study 4 faculty members never used internet at all while 2 were using only for mail purposes. Remaining members of faculty uses internet for gathering information and also to collect material for teaching in addition to mailing purpose. In another study it was shown that 88.13 % teachers were using internet for collection of material for teaching.[6]

Another finding of the present study was 8 faculty members (07.69%) were using computer assisted teaching learning methods other than power point like multimedia, videos and CD/DVD but not e-learning or m-learning modules.

**Limitation of the present study**

Study was limited to a single institution. Not all members of faculty were participated in this study. A student feedback was not taken regarding the efficacy of teaching learning methods adopted by faculty members.

**Conclusion**

Almost all members of faculty of SUT Academy of Medical Sciences, Thiruvananthapuram are computer literate and majority uses power point mode of teaching for selected topics and still uses traditional methods. Faculty members uses internet for gathering information and also to collect material for teaching in addition to mailing purpose. Few among them are using computer assisted teaching learning methods other than power point like multimedia, videos and CD/DVD.

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