

## Use of PowerPoint Presentation by the Teachers for Instruction in Selected Dental Colleges of Bangladesh

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### Abstract

This descriptive type of cross-sectional study was conducted to find out the views of undergraduate dental college teachers about the PowerPoint presentations as instructional media used by teachers in dental colleges of Bangladesh. The study period was from January 2018 to December 2018. The study was carried out among the teachers of all 4 phases of BDS course of 2 government and 2 non-government dental colleges of Bangladesh. Out of 4 dental colleges, 2 were within Dhaka and 2 were outside Dhaka. The sample size was 100 for teachers. Convenience sampling technique was adopted for data collection. Self-administered semi-structured questionnaires using five points Likert scale were used for collections of data from teachers. The study revealed that 72% teachers consider Eye appealing appearance for choosing PowerPoint slides and 58% teachers did not use master slide. For selection of font style, 67% teacher agreed they consider readability, 88% agreed they consider visibility from last bench of classroom to select font size but 61% teacher disagree that they consider background for selecting font color. The study recommended, during the preparation of a PowerPoint presentation by teachers some areas like using the master slide, background, the number of words and lines need attention.

**Keywords:** PowerPoint, Preparation, Presentation, Usefulness.

### Introduction

Instructional media are the means for transmitting or delivering messages and in teaching-learning perspective delivering content to the learners, to achieve effective instruction. Instructional media enhance facilitation and make teaching/learning easy, lively and concrete.

Wide variety of technology are available for use in teaching in higher education. In recent years technology has started to make a significant presence in classroom and in education process, technology has become a necessity<sup>1</sup>. A key element necessary to

develop clinical skills is active learning. Effective teaching is critical for student's learning, especially in professional field such as dentistry. The routine evaluation of teaching effectiveness is important in improving faculty as well as departmental and institutional effort. Teaching effectiveness can be defined as the extent to which the teaching activity fulfills its purpose<sup>2</sup>. The use of electronic presentation is common in Medical and Dental colleges and Universities. Microsoft PowerPoint presentation (PPT) is the most popular package used out of all electronic presentations. The best PowerPoint slides

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serve as visual aids for effective presentations. Endless bullets, points and paragraphs of text are a recipe for disaster. If you didn't write in a blackboard, you shouldn't write it on slide<sup>3</sup>.

## Methodology

This was a descriptive type of cross sectional study. The study period was from January 2018 to December 2018. The study was carried out among the teachers of all phases of BDS course of 2 government and 2 non-government dental colleges of Bangladesh. Out of 4 dental colleges, 2 were within Dhaka and 2 outside of Dhaka. The sample size was 100 teachers. Dental colleges were selected purposively and convenience sampling technique was adopted for the teachers selection. A self-administered semi-structured questionnaire consisted of 43 items was used. All the items were measured on five points Likert scale with responses ranging from "strongly disagree" to "strongly agree" except last 3.

Interpretations of the mean scores were:

If mean score was >4: Situation of the item areas was highly satisfactory

If mean score was >3-4: Situation of the

item areas was satisfactory

If mean score was >2-3: Situation of the item areas was not satisfactory

If mean score was 1-2: Situation of the item areas was very poor

The study was carried after prior consent from the teachers. They were free to either participate or not participate in the study. After briefly explaining the purpose and procedure of the study, the questionnaires were distributed to the teachers to give their opinions/views. The filled-up questionnaires were collected from the teachers at the end of the lecture/tutorial/dissection class. Data were statistically analyzed by using SPSS program (IBM SPSS statistics, version 21) and represented accordingly.

## Results

Among the 100 teachers, 64 were female and 36 were male teachers. Out of the 100 respondents, 40 (40%) respondents from government dental colleges and 60 (60%) from non- government dental colleges. Total 70 respondents were from medical colleges of Dhaka and 30 respondents from medical colleges of outside of Dhaka.

**Table 1: Distribution of the teachers by their opinion regarding the issues related to the layout of their PowerPoint slides(n=100)**

Statement	Level of agreement with corresponding scores					Mean (±SD)
	SDA=1 No.(%)	DA=2 NO.(%)	NAND =3 No.(%)	A=4 NO.(%)	SA=5 NO.(%)	
<i>I do not always use master slide during preparation of my presentation</i>	4 (4)	12 (12)	26 (26)	32 (32)	26 (26)	2.36* (1.114)
<i>I do not always consider the theme during preparation of my PowerPoint presentation</i>	9 (9)	43 (43)	16 (16)	23 (23)	9 (9)	3.20* (1.163)

I always consider Eye-appealing of the slide during preparation of my PowerPoint presentation	0 (0.0)	22 (22)	6 (6)	57 (57)	15 (15)	3.63 (0.989)
Total						3.07 (0.651)

\* To calculate mean reverse scoring was done

Table 1 shows that different issues related to the layout of PowerPoint slides are just satisfactory as the overall distribution of the mean of the statements is **3.07 (±0.651)**. The issue on the use of master

slide is 2.36(±1.114), the issue on consideration of theme is 3.20(±1.163) and issue on Eye appealing of the slide is 3.63(±0.989).

**Table 2: Distribution of the teachers by their opinion regarding the issues related to the font of the PowerPoint slides(n=100)**

Statement	Level of agreement with corresponding scores					Mean (±SD)
	SDA=1 No.(%)	DA=2 No(%)	NAND=3 No(%)	A=4 No(%)	SA=5 No(%)	
I need to consider background of slide to select the font color	22 (22)	39 (39)	20 (20)	12 (12)	7 (7)	2.43 (1.166)
I need to consider the readability to select font style	1 (1)	4 (4)	28 (28)	46 (46)	21 (21)	3.82 (0.845)
I always consider the visibility of the words from the last bench of the class in selecting the font size of the body text of the PowerPoint slides	0 (0)	4 (4)	8 (8)	48 (48)	40 (40)	4.24 (0.767)
I always consider larger font size for the slide heading than body text font size	0 (0.0)	10 (10)	4 (4)	55 (55)	31 (31)	4.07 (0.868)
I always consider larger font size for the slide title than heading font size	0 (0.0)	4 (4)	6 (6)	75 (75)	15 (15)	4.01 (0.611)
I always maintain consistency of font size in all slides of my PowerPoint presentation	3 (3)	20 (20)	25 (25)	42 (42)	10 (10)	3.36 (1.010)
I use different color/bold/underline to emphasize some word	2 (2)	6 (6)	32 (32)	35 (35)	25 (25)	3.75 (0.968)
Total						3.66 (0.513)

Table 2 shows that different issues related to the font of the PowerPoint slides are satisfactory as the distribution of the mean of the statements about background of slide (2.43), font style (3.82), visibility of word from last bench (4.24), Heading font size

(4.07), title font size (4.01), consistency of font size (3.36), use of color/bold/ underline to give emphasis (3.75). The overall mean of these total 7 issues about the font of PowerPoint slides is **3.66 (±0.513)** revealed that it is satisfactory.

**Table 3: Distribution of the teachers by their opinion regarding skills in preparing PowerPoint slides(n=100)**

Statement	Level of agreement with corresponding scores					Mean (±SD)
	SDA=1 No.(%)	DA=2 No.(%)	NAND =3 No.(%)	A=4 No.(%)	SA=5 No.(%)	
I usually take assistance from other to prepare my PowerPoint presentation	15 (15)	27 (27)	18 (18)	35 (35)	5 (5)	2.88 (1.191)
<i>Most of the times I do not limit the number of words per slides in my presentation</i>	8 (8)	30 (30)	18 (18)	36 (36)	8 (8)	2.94* (1.444)
<i>Most of the times I do not limit the number of line per slide in my presentation</i>	7 (7)	29 (29)	28 (28)	32 (32)	4 (4)	2.97* (1.029)
<i>I always use points/ bullets in slides</i>	2 (2)	23 (23)	8 (8)	52 (52)	15 (15)	3.55* (1.067)
Most of the time I consider to use illustration in my slides	5 (5)	36 (36)	18 (18)	32 (32)	9 (9)	3.04 (0.378)
I use to check Grammar in my presentation	4 (4)	6 (6)	6 (6)	50 (50)	34 (34)	4.04 (0.900)
I use to check spelling in my presentation	0 (0.0)	2 (2)	14 (14)	50 (50)	34 (34)	4.16 (0.378)
I always maintain the consistency of slide format during my preparation	6 (0.0)	8 (0.0)	32 (14.3)	35 (85.7)	19 (0.0)	3.54 (0.378)
Total						3.37 (0.426)

\* To calculate mean reverse scoring was done

Table 3 shows that different issues related to the teachers skills in preparing PowerPoint slides are satisfactory as the distribution of the mean of the statements about taking assistance (2.88), number of word per line (2.94), number of line per slide (2.97), use of Points/Bullets (3.55), use of illustration (3.04), Grammar check

(4.04), Spelling check (4.16) and consistency of slide format (3.54). The overall mean of these total 8 issues of the font of PowerPoint slides is **3.37 (±0.426)** revealed that it is satisfactory.

## Discussion

The layout of PowerPoint slides gives the first impression to the audience. In present study the overall mean score for the opinion regarding layout by teachers was 3.07 ( $\pm 0.651$ ) and it gives the impression as satisfactory. But the mean score of opinion related to theme of PowerPoint slide was 2.80 ( $\pm 1.163$ ) which is at unsatisfactory level. PowerPoint slides are mainly selected by teachers from designed templates available in the software. Teachers use busy, often visually incoherent layouts, and encourage reliance on bullets by defaulting to bulleted text, if they choose to use a built-in template then they have to select a simple design and adjust the Slide Master to remove unnecessary elements<sup>4</sup>. Slide background plays a vital role in delivering a good-looking presentation. A good selection of background can really make the content stand out. In this study, the mean score for the opinion of “I need to consider the background of slide to select the font color” was 2.43 ( $\pm 1.166$ ), and the score expresses the grade as below average. Clear, legible text is essential for electronic presentations. Because it supports the oral presentations, helps to keep the audience focus and assists students learning. A poorly chosen font can negatively impact the perception of the material, and the perception of the presenter themselves<sup>5</sup>. In the present study, 48% of respondents agree and 40% of respondents strongly agreed that the visibility of text from the last bench should be considering points for selecting text size. Following guide is reported to works well:

Classroom > 200 seats Headings: 42 point,  
Main text: 36 point

Classroom < 200 seats Heading: 36 points,  
Main text: 28 points.

Room seating < 50 Headings: 32 points,  
Main text: 24 point<sup>6</sup>.

For a better presentation certain skill is required to prepare it. In this study the overall mean of 7 issues related to “opinions regarding skills in preparing PowerPoint slides” by teachers was 3.37 ( $\pm 0.426$ ) and revealed that it was satisfactory. There is a general rule about the use of the text in PowerPoint slide and there should be not more than 6 words per line and 6 lines per slide<sup>7</sup>.

## Conclusion

In this study, undergraduate dental college teachers give their views about the preparation of PowerPoint presentations that used as instruction media in classroom. The study findings correspond with the results of other studies that was done both in Bangladesh and other countries in relevant issues. The feedbacks from this study provided some suggestions about the preparation of PowerPoint Presentation. Most important of all, it is hoped that the study could raise the awareness of PowerPoint presentation as a powerful tool in classroom instruction.

## Recommendations

Based on the study findings, it could be recommended that:

- Training of teachers about the quality use of audio-visual aids is needed.
- Different dental colleges and unit can organize workshop on PowerPoint preparation locally and Center for Medical Education (CME) can organize centrally.
- Periodic evaluation of teachers is needed for keeping the quality of PowerPoint up to the mark.

- Every classroom should have adequate instruments for proper PowerPoint presentations.

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