

Provision Of Handouts At The End Of Lecture; An Effective Teaching And Learning Practice

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Abstract

Objective: This study aims to find out the perceptions of students on handouts as learning material and their effectiveness as an instructional tool.

Method: It was a descriptive cross-sectional study, conducted at Shalamar Medical and Dental College. The duration of the study was 6 months from (June 2022 to December 2022). A total of 185 students of MBBS participated in the study. A structured questionnaire prepared by the researcher was used for the collection of data. Data was entered and analyzed using SPSS version 22.

Results: A total of 187 students from third year, fourth year and final year MBBS participated in the study. 77.7% of students maintained a positive response that handouts helped them develop a better understanding of the lecture. A total of 78.8% of students felt a sense of satisfaction when handouts of lectures were made available to them. 85.9% of the students, in our research, reported that handouts have proved to be helpful in the preparation for exams. This research showed that 82.3% of the students supported the proposition that teachers should provide their students with lecture handouts.

Conclusion: The study suggests that students have a positive attitude towards the provision of instructor-prepared handouts and they consider it as an effective tool to enhance their learning.

Keywords: Handouts, learning tools.

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1. Introduction

Medical education is a dynamic process and medical teachers always want their sharing of knowledge must be enjoyable and easier for comprehension for their students. They always try to incorporate strategies that will improve students learning. Although there is always a debate about lectures' usefulness as large group teaching still it is employed in almost all medical institutes by which experienced teachers teach the subject. Student handouts are considered essential in lectures for medical students. Taking them away from students could reduce students' capability to understand lectures. Many teachers consider them helpful for the students to enhance their learning but some teachers believe that they make the students passive learners and promote spoon-feeding among students.¹

Different types of handouts are used by the teachers. Common ones are full-text handouts containing whole lecture details, structured handouts containing main key points and outline of the lecture and the other type is photocopies of PowerPoint presentations used by the teacher in the lecture.

There is a lot of debate in the literature about the advantages and disadvantages of providing handouts to students. Studies that favor the provision of handouts to students claim that handouts improve students' learning experience.² Handouts tell the students about the areas of importance when they prepare for their assessments. When students receive handouts, they feel satisfaction that they have something in hand. Usually, students are not much expert in taking notes during lectures so there is the possibility that they will miss some important points of the lecture. Meta-analysis of 33 studies suggested that students' note-taking handouts have the best effect on student learning.³ A cross-sectional study conducted at Chulalongkorn University also favored the provision of handouts to students.⁴ Studies which are not in favour of giving handouts claim that if teachers provide students with handouts attendance in the class decreases. Students' efforts for searching information decrease, and they become teacher-dependent.¹ Literature suggests that these problems are more with full-text handouts.² In contrast to this, the only outline of the lecture is provided it has a positive impact on student learning. According to cognitive load theory, learning is enhanced if



instructional activities avoid surpassing students and providing lecture notes reduces the load on memory.⁵

Still, there is debate and controversy about the provision of handouts in the world. In our institute Shalamar Medical and Dental College Lahore, there is no set protocol about the provision of handouts, and most of the teachers do not use them, this leads us to find out the perspective of our students about handouts and whether should we provide them or not to improve teaching and learning practices in our institute. Students' perceptions of their educational strategies are one of the important factors for improving the quality of teaching and learning, so it is important to understand their experiences and perceptions. The study is intended to provide research-based evidence about how students perceive the usefulness of handouts for learning.

2. Materials & Methods

It was a cross-sectional study, conducted at Shalamar Medical and Dental College. The duration of the study was 6 months from June 2022 to December 2022. after taking approval from Institutional Ethical Approval.

A total of 185 students from 3rd, 4th and final year MBBS participated in the study. Participants from both genders were recruited by convenient sampling to take part in the study. Informed written consent was obtained from study participants before conducting the study. IRB approval (IRB: Refer No: SMDC/IRB/06-08/194) was obtained before recruitment and data collection for this study. All students of 3rd year, fourth year and final year who had more than 80 per cent attendance in the lectures and who were willing to participate were included in the study while those who were absent or had less than 80 per cent of attendance or were not willing to participate were excluded from the study. Students of preclinical years were also excluded. All participants explained the objectives of this study and were assured of the maintenance of confidentiality of the information that they provided for this study.

A structured questionnaire prepared by the researcher was used for the collection of data. The questionnaire was based on a five-point Likert scale using a rating scale from strongly agree to strongly disagree. The questionnaire was validated by two subject experts and a pilot study with ten medical students. The data was obtained by distributing the questionnaire among students and asking them to fill it out; it was later collected from them by the researcher

Data entry and Analysis:

Data was entered and analyzed using SPSS version 22. For measuring quantitative variables descriptive statistics were used and for expressing qualitative variables, frequency and percentages were calculated. The t-test was applied. Percentages were used to determine the response rate. Data was presented in the form of percentages.

3. Results

The participants in this research were aged between 20 to 24 years. The results were compiled after collecting data in the form of a questionnaire from 185 students. 107 students were female and 78 were male.

The structured questionnaire consisted of five statements and students had to choose one of the following responses as an answer i.e., strongly agree, agree, strongly disagree, disagree.

22.7% of students marked strongly agree, 55% marked agree and 22.1% marked disagree while no one marked strongly disagree with the statement "I believe handouts improve my understanding of the lecture." This shows that 77.7% of students maintained a positive response that handouts helped them develop a better understanding of the lecture.

Moving on, in response to the statement "I feel handouts help me in preparation for my exam", 21.6% of students strongly agreed, 64.3% agreed and 14% disagreed. This makes a total of 85.9% of students responding affirmatively that handouts act as a helpful tool when preparing for exams.

Furthermore, 21.6% of students agreed strongly, 57.2% agreed and 20.5% disagreed with the statement "I feel satisfied when handouts are provided to me".

A total of 78.8% of students felt a sense of satisfaction when handouts of lectures were made available to them. In response I feel handouts with only key points are better than full-text handouts", 20% of students to the statement " marked strongly agree, 58.9% marked agree and 21% marked disagree. This indicates that 78.9% of students believe that providing the handouts containing key points of the lecture would augment their ability to better prepare it.

Lastly, in response to the statement "I feel every teacher should provide handouts to students", 17.2% strongly agreed, 65.1% agreed and 17.8% disagreed. This points out that a total of 82.3% of the students want their teachers to provide them with handouts.

Table 1: Evaluation of Student Responses Using Five Points Scale

Survey statements	Strongly agree	Agree	Don't know	Disagree	Strongly disagree
"I believe handouts improve my understanding of the lecture."	22.7%	55%	—	22.1%	—
"I feel handouts help me in preparation for my exam",	21.6%	64.3%	—	14%	—
"I feel satisfied when handouts are provided to me".	21.6%	57.2%	—	20.5%	—
"I feel handouts with only key points are better than full-text handouts",	20%	58.9%	—	21%	—
"I feel every teacher should provide handouts to students",	17.2%	65.1%	—	17.8%	—

A *p*-value less than 0.05 is significant.

4. Discussion

According to the results of our study, most of the students believe that handouts improve their understanding of lectures and help in preparation for exams., they feel more satisfied and want teachers must provide them with handouts with key points. Multitasking during lectures, for instance, the widely accepted practice of taking notes, and simultaneously listening carefully to what is being taught, can result in divided attention from a student's side. An important element of communication in teaching is the use of teaching aids, like handouts. , Making handouts of the lecture available to students is an important step in helping them to take better notes and improve concentration in class.⁶ Providing students with the instructor's framework notes is a significant positive intervention in the note-taking/reviewing process. Notes jotted down by students during a lecture in a hurry can be inaccurate and incomplete as there is only enough time to pay attention towards the topic being taught. That's why it is pertinent to provide lecture notes in the form of handouts to minimize errors made by students when writing their notes.

According to our research, 77.7% of the students believed that they were able to understand the topic being taught in a better way when they were provided with lecture handouts. By providing handouts, the responsibility of taking effective and useful notes is wavered off in a way, and this keeps the students focused on the important task of understanding the lecture first. This is consistent with the research done by Farnaz Zahedi in 2013, where their research showed 73.7% of the students stated that having handouts increased their focus on the topic.⁶ Our research showed that 78.8% of the students felt more satisfied when handouts were provided to them. Having handouts in their possession, gave students a sense of comfort and helped them focus on the lecture better as they were relieved of the burden

of listening and taking notes simultaneously. This eases the act of taking meaningful and focused notes for students. According to Farnaz's research, 78.3% of students having handouts facilitated taking notes.⁷

85.9% of the students, in our research, reported that handouts have proved to be helpful in the preparation for exams. This is consistent with the study done by Boreham N which concludes that lecture handouts can increase learning and recall but they must facilitate the process of listening to the lecture along with providing the review material.⁸

Students are not very efficient in taking notes, they tend to record less significant information and miss out on the key points they were supposed to write down. Lectures in the form of PowerPoint presentations have become a common practice in today's world. The problem here is, that PowerPoint presentations provide abundant knowledge too quickly. Hence without guidance from the facilitator or teacher, jotting down notes from a power point delivered presentation comes with the disadvantage of students missing out on the key points that they were supposed to record.

Our research pointed out that 78.9% of the students believe that handouts with only key points of the lecture are far more helpful than full-text handouts. As stated by Prozesky, because handouts are an important way of communicating with students, they must communicate effectively.⁹ Full-text handouts can create confusion among students as to what areas of the lecture are they supposed to prioritise. Too much information in full-text handouts can lead to saturated minds with unclear concepts. Guided notes which focus on key points of the lecture are hence better as they clarify the focus areas, ultimately helping the students to rank the information according to its importance. Guided notes are instructor-prepared handouts given to students to present an outline of information during a class. Providing lecture handouts has proven to enhance the recall of students. This depends on the amount of detail provided in the handouts.^{10,11}

This research showed that 82.3% of the students supported the proposition that teachers should provide their students with lecture handouts. This not only takes the burden of listening and writing down notes of the lecture being delivered but also channels their energy into building concepts.^{12,13} Moreover, handouts serve as a beneficial means to help students prepare for exams. Shashikala G V, Deepak A, Patil S also found in their study, that students' positive perception and enhanced performance can be taken as an encouraging factor for the faculty to use outlined handouts.¹⁴ A study by Halalsheh, R., Al-Rawashdeh, A. & Rababah, E suggested the provision of interactive materials to help medical students overcome the challenges that might impact their performance.¹⁵ A cross-sectional study conducted at the Medical College of Alkindy-University of Baghdad also showed students were positive towards handouts.¹⁶ Another idea highlighted in our research that needs pointing out is handouts with key points and lecture outlines are more helpful while reviewing the lecture as they are concise and call the student's attention to the concepts that need revision.

5. Conclusion

The study suggests that students have a positive attitude towards the provision of instructor-prepared handouts and they consider it as an effective tool to enhance their learning.

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Contributions:

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S.S, H.M, L.R.D, A.S - Experimentation/Study Conduction

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S.S, H.M, A.S - Manuscript Writing

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