

# A Qualitative Study on Lecture Capturing System in Pharmacy Education-Learners' Perspective

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## ABSTRACT

**Background:** The Lecture Capturing System method was implemented in Pharmacy education for a better understanding of the specific content and provides flexibility to review. This study observed pharmacy learners' perspective on LCS 'impartus' usage and its impact on the learning milieu. **Materials and Methods:** Non-probability (Convenient) sampling design was adopted and a qualitative study was carried out amongst 60 students in their third-year Pharmacy (B.Pharm) students from one of the private pharmacy colleges in Virudhunagar, Tamil Nadu. Structured questions were framed, and data were collected from the respondents. Moreover, descriptive analysis was carried out based on the lecture usage, the impact of LCS on learning and the academic effect of LCS. **Results:** It showed that learners believed LCS was an effective tool for their understanding and access based on priority and need. However, learners do not have additional time to watch the recorded video. **Conclusion:** Findings showed that recorded lecture videos are more useful and allow pharmacy learners to engage flexibly in this digital era.

**Keywords:** Learners, Lecture Capturing System, Pedagogy, Pharmacy education, Qualitative study.

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## INTRODUCTION

Education 4.0 emphasizes a discussion-based teaching process with instructors and peers, the instructors act as mentors, life-long learning, learners' holistic growth, sustainability, project based learning, technology in classrooms, innovation and creativity. Nonetheless, there are so many tools in ICT, Impartus is a learning platform that is used in educational institutions, moreover it is a cutting-edge lecture capturing system that automatically records, stores and accesses anywhere with or without the internet. This platform enables instructors and learners to start a discussion and features such as dashboard, content catalog, backpack, playlist, advance search, schedule, reports, learn and support. The backpack helps to share files among peers and reports help to see the learners' usage, in addition, user friendly amongst learners and teachers. In contrast, traditional classroom teaching has been challenged by the course of pandemic, thus LCS has been the beacon that supports to a large extent among learners to have a continuation in their learning. STEM education emerged in the late 1990's and refers to the combination of the following disciplines such as science, technology, engineering and mathematics.<sup>1</sup>

STEM education helps to find solutions to real life issues and gain relevant experienced that could inculcate their career path.<sup>2</sup> Voelkel *et al.* 2023 carried out a study on students learning behavior in lecture capture method. A survey was conducted amongst 694 biological sciences students and the result showed that lecture capturing method improves students learning and they spend time watching recorded video.<sup>3</sup> However, this method has a negative impact on students' attendance. Similarly, Durand *et al.* 2023 analyzed the pharmacy (M.Pharm) students' experience of technology at Irish University during the pandemic period. A cross-sectional survey was adopted and the result showed that students felt ease to adopt blended learning.<sup>4</sup> Furthermore, Bollmeier, Wenger and Forinash 2010 carried out a study on students accessing recorded lecture videos in Therapeutics Course. The result showed that no correlation was found between several videos watched by the students and final course grades.<sup>5</sup> Moreover, online lecture videos did not affect, and they secure good grades. A study on impact of recorded lecture videos among faculty and students in Doctor of Pharmacy (Pharm.D) programme. According to students perspective recorded videos are highly benefited and faculty members felt students were irregular to class and maintained poor attendance.<sup>6</sup> In addition, Schnee *et al.* 2019 carried out a comparative study on performance of live and recorded video among pharmacy students. The result showed that live class performance has high impact on higher examination than recorded video class.<sup>7</sup>



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Remião *et al.* 2022 examined a study on student attainment and learning outcomes in video lecture capturing class. The result showed that students attained the learning outcome effectively.<sup>8</sup> Moreover, a study was conducted on sighting students' lecture capturing usage patterns and the result showed that students gain better knowledge in lecture capturing method.<sup>9</sup> In contrast, Freed, Bertram and McLaughlin (2014) conducted a qualitative study on lecture capturing method among nursing faculty. The result showed that faculty members were concerned about LCS restricting their teaching plan, fear of evaluation and moral values.<sup>10</sup> In addition, LCS provided an opportunity to revise the difficult concepts in a flexible manner.<sup>11</sup> However, Summers, Higson and Moores 2023 concerned that different modes of online teaching methods are used by educational institutions.<sup>12</sup> Durand *et al.* 2023 explored a study on technology enhanced learning among pharmacy students; the result showed that students are keen on face-to-face lecture method. However, technology enabled lecture methods assisted during examination revision. In the same way, Chan *et al.* 2022 conducted a study on students' perception of video-based learning using a survey method. The students were willing to use video-based lectures for their self-doubt and flexibility.<sup>13</sup> From the light of literature review, no studies have been carried out through qualitative methods using structured questionnaires in this study area, especially with pharmacy students.

## Research Questions

What is the impact of the Lecture Capturing System (LCS) in the teaching learning process?

Is it making them to be less attentive inside the classroom? and to what extent learners are using the LCS for their learning.

## MATERIALS AND METHODS

A Non-probability (Convenient) sampling design was adopted for this study. A qualitative study was carried out amongst 60 students in their third-year pharmacy students from one of the private pharmacy colleges in Virudhunagar, Tamil Nadu, India using a structured questionnaire. Structured questions were recorded and transcribed into descriptive, then descriptive analysis was carried out based on the lecture usage, the impact of LCS in learning and the academic effect of LCS. Questions were asked in the way to understand the complete effectiveness of LCS among the students in their learning process.

## Descriptive Analysis

Questions were asked to know the effectiveness of LCS among the learners and what kind of mindset it has brought inside the classroom while real time lectures happen. The following factors were discussed such as;

## Importance and outlook of LCS

The lecture capture system helps the learners to watch important lectures based on their requirements anywhere and at any time, exclusively when they are absent, missed lectures, or some health issues. Moreover, learners are willing to watch the selected parts of the lectures and they are used for revision. LCS is useful for slow learners when the medium of instruction is in the target language. Furthermore, learners excel in the use of technology and access the shared material by the instructor. In contrast, they could not do collaborative work or activities while watching the recorded lectures.

## Impact on attendance and students' attainment

Due to the impact of LCS, learners are not willing to attend classes hence it affects their attendance. All the students are not so attentive during the classroom lectures because of personal reasons. Therefore, non-attentive students are used to facing challenges on learning the subjects and to prepare themselves for the exams. However, LCS eradicates the hurdles and is supporting a lot to the slow learners and non-attentive students. As a result, the lecture capturing system decreased the students' attendance; furthermore, they missed the fact-to-face interaction with the faculty members.

## Impact of LCS among student community

Students are involved in listening to the real-time classroom lectures in addition they are listen to the same in online when they are not inside the classroom and even after the real-time class lecture ends.

## Pharmacy students' perseverance

Among pharmacy students, LCS provides more understanding by allowing watching the lectures again and again till learners get clarity. Some students do have the hesitation to clarify their doubts. Moreover, it helps the students to be self-reliable without expecting someone to help them for their examination preparation and it motivates a lot to do their extensive learning by referring to the lectures often to get clarity. Furthermore, it helps the learners to recap the specific lectures of specific topics during their examination.

## Barriers in real and LCS

LCS does not encourage learners to raise questions and their doubts during the classroom lecture time. Furthermore, during the traditional classroom lectures students must listen to the lectures delivered very carefully and whenever they get any doubts, they have to ask it and clarify it with the faculty. In contrast, video and audio was not synchronized appropriately in LCS setting; similarly, audio was not available for some recorded videos.

## FINDINGS

### RQ1: What is the impact of Lecture Capturing System (LCS) in teaching learning process?

LCS plays a pivotal role in their learning process, moreover those who frequently watched lectures got good grades. In addition, students are procrastinating the lecture videos and trying to watch in a single session. LCS paves a way to review or revise the lecture during their unfavorable conditions. Lecture capture system does not hinder students' learning capabilities and facilitated needy students thus enucleated self-learning. It provides the provision of watching the lectures repetitively till they get clarified. However, they could not interact directly with the proctor. Students always be in a casual attitude of either listening to the lecture or simply being idle cum lazy during the lectures because they will watch to the same lecture again through the LCS. Moreover, lecture capture fades the effectiveness of classroom lectures.

### RQ2: Is it making them to be less attentive inside the classroom? and to what extent learners are using the LCS for their learning?

Most of the students were attentive inside the classroom, however a few students were less attentive. It depends upon the individual's attention towards lecture capture system moreover they felt this capture system acted as a supplementary. Based on the usage of LCS, learners were segregated into various levels such as active users, minimal users and non-users, furthermore the levels were based on the mood swings of the learners. In contrast, during their examination learners were excited to watch recorded video for their marks. Due to a lack of gadgets or poor connections learners were hindered from watching recorded classes. Though LCS affected learners attentively they secured good grades in their semester exams. To get a better understanding of the specific topic, online quizzes were conducted, and the scores were shared with the respective student, as a result, it helped the slow learners and below average students.

## DISCUSSION

The lecture capture system permits the instructor to share more information about outside the classroom. Therefore in-time class will be effectively used for interaction with peers, discussion with faculty members and to carry out group work. Nordmann *et al.* 2022 suggested that lecture capturing method reinforces students learning and is used as a revision tool. Making notes helps the learners to sum up content easily so students should reinforce note-taking while listening to captured lectures and instructors also should enhance their teaching based on the need.<sup>14</sup> Videos stimulate writing habits amongst technical students,<sup>15</sup> thus LCS promotes ease of learning and motivates the students.<sup>16</sup> In addition, learners use lecture capturing videos as supplementary, furthermore if they have any doubt they can post queries with

their peers or with the instructors. In contrast, students should not engage in multitasking activities (work, gym, riding, driving and so on) while listening to recorded lectures. Similarly, students found few drawbacks in the captured system.<sup>17</sup> Though there were disadvantages, with the help of quiz it was better to understand learners' level in the particular context. However, students preferred face-to-face lectures rather than recorded video. On another hand, learners were negatively impacted<sup>18</sup> by the captured system; however, majority of the students voluntarily provided feedback<sup>19</sup> on the course content. The recorded and live videos provided a better learning understanding.<sup>20</sup> Moreover, group activities also be conducted through this capturing method and students can do self-assessment. Thus, self-assessment could improve learners' performance.<sup>21</sup> Also, body dissatisfaction plays an important role in learners, achievement.<sup>22</sup> In this digital age, it is becoming more common to incorporate innovative technology or other ICT tools into education along with conventional teaching methods.

## CONCLUSION

Our result shows that learners benefited from this capturing system, and it acted as one of the learning strategies,<sup>23</sup> motivating the students to use the capturing method effectively. However, students get low grades in their examinations while they are not solving the quizzes in the live classroom. In contrast, students who could solve quizzes in the live class were familiar with the topics and content. As a result, it increased the understanding level and paves the way to achieve more in the end semester examinations. The slides were available on the platform, so students were profound to the content. Similarly, the instructors uploaded the study materials along with the standard ppt. There were so many educational platforms, however LCS was their learning preference. Moreover, integration of live and recorded videos gained better understanding amongst high achiever, however non high achievers could not cope up the content clearly. It is suggested that instructors should motivate the learners to adopt the recorded video lectures and scaffold with their prior knowledge. This lecture captured method brings interactive teaching in teaching learning process. Furthermore, it promotes autonomy learners in terms of convenient and continuous life-long learning.

## LIMITATIONS AND FURTHER IMPLICATIONS

This study is limited to pharmacy students, conducted in one of the private pharmacy colleges in Virudhunagar district, Tamil Nadu, India. In addition, qualitative methods and non-probability sampling were used in this study. Further studies could be conducted amongst engineering colleges, arts and Science Colleges and other academic institutions. Furthermore, longitudinal and empirical studies can be conducted in various regions in India or other countries.

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## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

## ABBREVIATIONS

**LCS:** Lecture Capture System; **STEM:** Science, Technology, Engineering and Mathematics; **ICT:** Information and Communications Technology; **M. Pharm:** Master of Pharmacy; **Pharm.D:** Doctor of Pharmacy.

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