

# **An Exploratory Study on How Educational Technology and Online Learning Teaching Process Affects University Students in Sri Lanka in their Studies**

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## **1. Introduction**

Education is a critical concept globally, with many educators offering different definitions. Nelson Mandela famously stated, "Education is the most powerful weapon which you can use to change the world." Higher education, particularly university education, plays a crucial role in shaping a country's future. In Sri Lanka, university education is especially important, and empowering it with technology is essential, as future professionals emerge from these institutions. This research focuses on the role of educational technology and online learning in enhancing the teaching and learning processes for university students. It is vital to provide educational technology knowledge not only to university students but to all individuals in Sri Lanka's education system. While online education has posed challenges for many students, it is important to improve the quality of education continually. This study will explore how to connect university education with current technological advancements, minimize the challenges of online learning, and enhance the educational experience by addressing students' difficulties. The main goal is to transform online education into a positive experience, examining how educational technology impacts university students in Sri Lanka.

## **2. Materials and Methods**

Interviews and questionnaires were used to obtain information for this research. The parts that might have been lost through the questionnaire were covered using the interview method, and both methods were followed. A group of ten students studying university education from different parts of the country who have experienced online education was selected and given a questionnaire covering all nine faculties of the university. Their answers and views on this educational technology and online education were elicited.

In addition to this, many students from different areas of the four-year groups, covering all nine faculties at the University of Peradeniya, who have faced online education, were interviewed to investigate their views. A mixed method, combining both quantitative and qualitative approaches, was employed by collecting data through interviews and questionnaires. Information was obtained from 10 students through questionnaires and 25 students through consensus discussions. Additionally, interviews were conducted with many university students studying online at various universities in Sri Lanka, and their opinions were gathered in this regard. One advantage of this study was that many participants had received online education some time ago and are currently studying physically. Information was obtained easily through several methods, such as questionnaires. In addition to this, interviews were also conducted with many university students who were studying online in various universities in Sri Lanka and their opinions were obtained in this regard. Through this, one of the conveniences to discover the true situation of students studying in Sri Lankan universities was that many students who participated in this study had received online education some time ago and are currently studying physically. Information was obtained easily through several methods such as questionnaires.

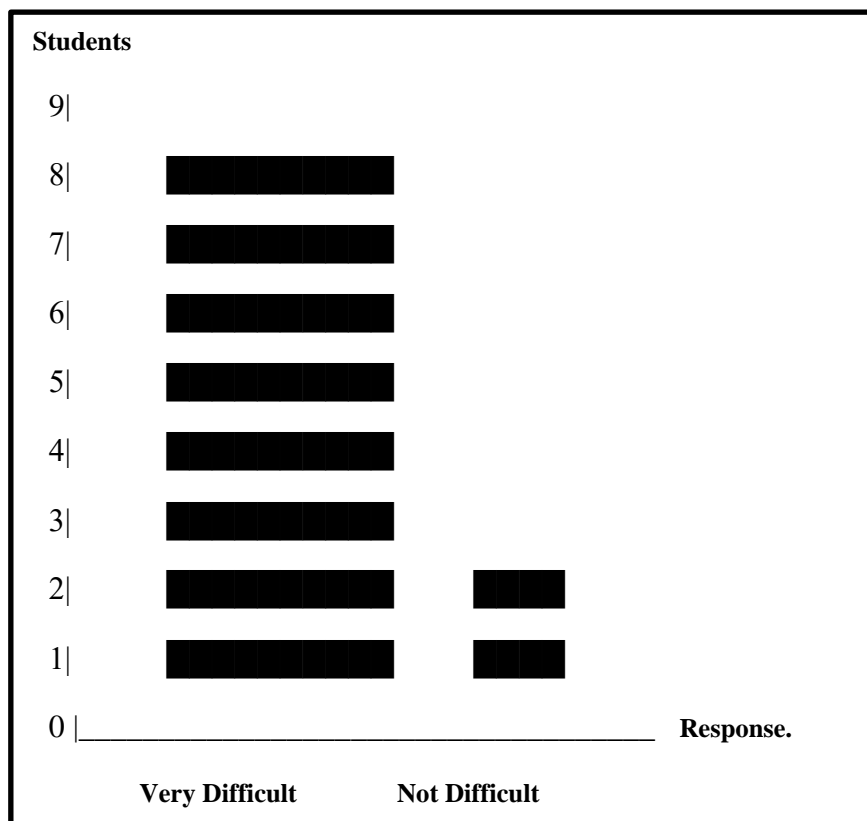
## **3. Results and Discussion**

Information was obtained according to the methods mentioned above, and the information obtained was able to provide a good explanation about the need for educational technology and

the way online education affects university students. In other words, the students who participated in the research and in both the methods of interviews and questionnaires were educational. They said that technical knowledge is a must for every student. But many people's response to online education was very negative.

- They said that although this education system is a good one, such situations have arisen due to the difficulties in getting education through it.
- Under it, the problems of lack of signal especially when participating in online classes, having to sit in the same place for several hours and learn through online technology.
- Lack of money required for the packages spent on joining,
- Less space for student-centered education,
- Discussions with lecturers about unclear areas,
- Some difficulties arise in the possibility of clear learning for all,
- Technical difficulties in attending lectures due to different weather conditions.,
- It was clearly pointed out that they face difficulties such as the lack of knowledge that can be understood by doing it orally through this technique, errors in practical research, etc.

Also, 2 out of 10 people who answered the questionnaire said that this online technical learning was good and without any problems for them. The following table shows the results obtained from the 10 students who participated in the questionnaire.



According to the opinions expressed by these university students, although this online education technology is a good one, the adverse effects of its implementation should be avoided. Especially as mentioned above, due to the problematic situations they face, attitudes have been created to look at this technical teaching in a negative way. Therefore, *first of all, every student should be given a comprehensive understanding of technical knowledge. Also, the problems of children who are unable to participate in online education should be investigated and the solutions that can be given to them should be done first.*

*Also, in activities such as practical tests, they should be made to watch some video clips and do the same lesson several times until they get a comprehensive understanding. Furthermore, teaching methods should be done by giving breaks instead of continuous teaching methods in order to avoid boredom. Matters such as re-doing for students who are unable to participate in weather conditions, and giving methods to children with economic difficulties to get rid of those difficulties should be done.* It can be said that the online process can be done very effectively, and through that the maximum results of university education can be reaped. Two of the ten people who answered the questionnaire said that this online education system is good because they don't have any of the problems mentioned above and are able to connect with this technical education without any problem.

#### **4. Conclusion**

Online education and educational technology play a very important role in situations where it is not possible to conduct lectures in person. In this regard, university students should be given a comprehensive understanding of these technologies before emergency situations arise. By addressing the problematic situations identified above, it is possible to apply the positive outcomes of online technology to university education. In particular, students facing economic difficulties can receive the necessary packages to connect through online education and obtain communication tools from the government and educational institutions. The Ministry should provide the necessary assistance. Educators should make arrangements to facilitate more student-centered education.

In this context, especially during practical tests, students should be able to view materials through information communication tools such as videos. Lectures should be recorded so that, even in distance learning, students can experience learning as if they are present with the educator. Necessary activities should be undertaken to provide a transformed educational model. Additionally, during lectures, students should have the opportunity to ask questions and understand all aspects of the lesson. In cases of misunderstanding, educators should be prepared to teach the same lesson two or three times, working to engage students in the learning process. In conducting examinations and evaluations, challenges such as submitting answer sheets through online technology present various difficulties. The effectiveness of this process can be enhanced by allowing extra time for submissions, enabling university students to utilize this effectively in their educational process. Thus, it appears that they are facing challenges such as economic constraints, signal issues, distant teacher-student relationships, environmental factors, and a lack of knowledge about technology. By addressing these factors, students can gain extensive knowledge about educational technology and maximize the benefits of online learning, leading to a successful educational experience. Looking at the research results, although students did not completely reject this technology, there were weaknesses in their knowledge related to it, and economic issues were also observed.

#### **5. Acknowledgment**

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#### **6. Keywords**

Academic Activities, Difficulty, Disclosure, Educational Technology, Online Learning, Teaching Process.

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