

**Determinants of Student Satisfaction in Online Tutorials:****A Study of an Online Education Academy****Nandasena, N.P.H.<sup>a</sup> & Rebecca, E.<sup>b\*</sup>**<sup>a,b</sup> *Department of Human Resource Management, University of Kelaniya, Sri Lanka*<sup>a</sup>*piyumi97hasanthika@gmail.com*, <sup>b</sup>*rebecca@kln.ac.lk***Abstract**

Distance learning is gaining popularity as a competitive alternative to traditional classroom instruction. Educational institutions that offer formal classroom education also incorporate distance learning courses due to the benefits it provides, such as low cost, wider access, and shared resources. To investigate student satisfaction in e-learning, this study focused on final-year students of ABC Online Academy in Colombo, Sri Lanka. Data were collected through self-administered questionnaires to assess students' satisfaction. The study adopted a cross-sectional approach, utilizing a single source of data. A random sampling method was employed, resulting in 145 valid questionnaires from the students of the online education academy. Hypotheses were tested using the Pearson correlation coefficient and regression analysis. The study findings indicated that students' satisfaction is determined by course structure, the flexibility of online tutorials, the quality of online tutorials, and technology quality. The implications of these results for theory and practice were also discussed. Consequently, the study suggests that management should prioritize attention to course structure, the flexibility of online tutorials, the quality of online tutorials, and technology quality, as these factors are linked to increased student satisfaction. So, this research contributes to the existing literature on student satisfaction and e-learning context by examining the determinants of student satisfaction in online tutorials.

**Keywords:** *Course structure, Online Tutorial Flexibility, Online Tutorial Quality, Student satisfaction, Technology Quality*

**01. Introduction**

E-Learning refers to the use of telecommunication technology to provide education and training. It offers several advantages, including overcoming limitations of time and space by enabling interactions between learners and instructors or among learners themselves through synchronous and asynchronous learning networks (Katz, 2000; Katz, 2002). Information and Communication Technology (ICT) has made significant advancements across various sectors, and its impact on education, particularly in higher education, has been remarkable (Ozkan & Koseler, 2009). The progress in ICT has led to innovative and alternative teaching and learning practices, widening the opportunities in the education sector. The application of ICT in the learning environment has given a rise to E-learning as a major paradigm, revolutionizing the

---

\* *rebecca@kln.ac.lk*

education sector. This paradigm allows individuals worldwide to access education as both knowledge distributors and knowledge seekers, transcending the barriers such as distance and time zones (Sun et al., 2008). E-learning has proven to be an incentive, motivating people, including older adults, to pursue education at their convenience. Internet-based technologies have played a crucial role in facilitating distance education through the E-learning model (Askar & Halici, 2004). Consequently, colleges and universities have found a cost-effective and flexible option to expand into global markets (Casey, 2008).

E-learning revolutionizes education and training by harnessing telecommunication technology (Rebecca & Jayawardena, 2023). Its numerous advantages empower learners to engage with instructors and peers, transcending the constraints of time and location through the synchronous and asynchronous learning network model (Katz, 2000; Katz, 2002). As the global population embraces and seeks new trends, the attributes of e-learning seamlessly cater the needs of contemporary society, leading to a remarkable increase in demand for e-learning among businesses and higher education institutions. E-learning has emerged as a powerful tool for elevating the quality of education and training, while simultaneously enhancing accessibility to learning opportunities. It represents an innovative approach that leverages electronic information to enrich learners' knowledge, skills, and overall performance (Siritongthaworn et al., 2006). So, the transformative potential of e-learning in meeting the evolving educational needs of individuals and organizations is widely recognized, positioning it as a cornerstone of modern learning ecosystems.

The evaluation of student satisfaction plays a vital role in assessing the effectiveness of distance learning, as it is closely linked to the quality of online education and academic accomplishments. Student interaction serves as a significant indicator for gauging the level of student satisfaction (Dilhani & Priyashantha, 2021). However, the impact of student interaction in conjunction with other crucial predictors at the student and class levels remains unexplored. Previous studies have attempted to identify factors that influence student satisfaction in e-learning platforms, but the findings have been inconsistent. These discrepancies present compelling aspects for further research and investigation. The field of distance education is particularly intriguing due to its relatively recent emergence. However, e-learning or distance learning also possesses the characteristic of creating a disconnection between students and teachers, with digital devices being the sole mode of presence (Katz, 2002).

In the context of ABC Online Academy, being a higher education institution that employs e-education systems and provides increased opportunities for Sri Lankan students to pursue higher education, it is crucial to understand student satisfaction since students are physically separated from lecturers and peers in the e-education environment. Therefore, this study aims to explore the factors that determine student satisfaction in online tutorials, using the research question: "What are the determinants of student satisfaction in online tutorials?".

## **02. Literature Review**

As per Bailey and Pearson (1983), as cited in Zaheer et al. (2016), satisfaction refers to an individual's attitude or emotions related to various factors influencing a specific situation. Astin (1993) suggests that understanding student satisfaction goes beyond the perceived value of education and knowledge gained from educational institutions, considering students'

perceptions. In the realm of human-computer interaction, it is widely believed that user happiness reflects the level of attachment formed through communication (Mahmood et al., 2000). User satisfaction, as proposed by Cyert and March (1963), as cited in Zaheer et al. (2016), is the degree of alignment between the information system utilized by users and their requirements.

Lo (2010) establishes a connection between student satisfaction and their individualized assessment of how effectively a specific learning environment supports academic performance. When students express high levels of satisfaction, it indicates that teaching methods are successfully fostering critical thinking and learning. The roles of both instructors and students are likely crucial factors in influencing student satisfaction, which in turn can impact student learning outcomes (Sekaran & Bougie, 2016). To identify the most effective elements for ensuring academic success, the current study examined several factors, as investigated by Winberg and Hedman (2008). According to certain studies, students who engaged in online collaborative tasks reported higher levels of satisfaction with their overall learning experience compared to those who did not participate in such activities (Jung et al., 2002). By analyzing the feedback from students enrolled in online learning courses, the reserachers can gain a better understanding of the factors contributing to their frequent dissatisfaction with the online learning experience. Further, continuous evaluation becomes a vital component of online learning, particularly in distance education where the majority of course delivery occurs online (Harsasi & Sutawijaya, 2018), in order to meet this criterion.

The course structure is one of the crucial factors that significantly influence student satisfaction. A top-quality online course extends beyond the mere provision of text-based instruction. It entails more than a straightforward conversion of printed course materials into digital formats. An exceptional online course incorporates an effective course structure, which assists distance learners in project planning, management, and organization. The study conducted by Hara and Kling (1999) revealed that student dissatisfaction with the remote learning experience can arise from unclear course instructions, a lack of timely feedback, and technological challenges. These findings underscore the importance of providing clear and comprehensive course instructions, ensuring prompt feedback mechanisms, and addressing any technological issues to enhance student satisfaction in online learning environments (Priyashantha et al, 2022a). By addressing these aspects, educational institutions can better meet the needs and expectations of their online learners, fostering a positive and rewarding learning experience.

The majority of students enrolled in distance education programs are adults who juggle various social, professional, and familial responsibilities (Moore & Kearsley, 2005). Consequently, online students seek the flexibility to participate in courses or programs at their own convenience and pace. In other words, the comfort and flexibility offered by a distance education program are additional factors that contribute to student satisfaction (Arbaugh, 2000). Research conducted by Maki et al (2000) indicates that students highly value the flexibility provided by the online learning environment, considering it a significant advantage. To enhance learner satisfaction, it is essential to empower learners by granting them a greater control and offering flexibility and alternative choices within educational projects. By doing so, educational institutions can better accommodate the diverse needs and preferences of online learners, ultimately fostering a higher level of student satisfaction. (Priyashantha et al, 2021).

The satisfaction and learning outcomes of e-learning are significantly influenced by the quality of the learning experience (Piccoli et al., 2001). The cooperative or constructive learning style, as proposed by Leidner and Jarvenpaa (1995), suggests that learners can enhance their conceptual knowledge and develop high-level thinking models through the utilization of media presentations and interactive communication facilitated by information technology. The virtual aspects of e-learning enable students to effectively plan their learning models and engage in ongoing online learning. These functionalities encompass managing the learning process, participating in interactive brainstorming sessions, and presenting course materials in a multimedia format (Piccoli et al., 2001). Consequently, quality is considered a vital factor in determining learner satisfaction. A high-quality e-learning environment not only facilitates effective learning but also contributes to learner satisfaction by providing engaging and interactive learning experiences.

### 03. Methodology

#### 3.1. Hypotheses

This study is built upon prior research conducted by Sun et al. (2008), Eom et al. (2008), and Harsasi & Sutawijaya (2018). Its primary objective is to examine the factors that influence student satisfaction in an E-learning environment. Drawing insights from the literature review and existing studies, this research focuses on four key factors that are anticipated to have an impact on student satisfaction: course structure, the flexibility of online tutorials, the quality of online tutorials, and the quality of technology. To achieve the research objective, the following hypotheses are proposed.

- H1: There is a positive impact of course structure on student satisfaction.
- H2: There is a positive impact of online tutorial flexibility on student satisfaction.
- H3: There is a positive impact of online tutorial quality on student satisfaction.
- H4: There is a positive impact of the quality technology on student satisfaction.

#### 3.2. Conceptual Framework

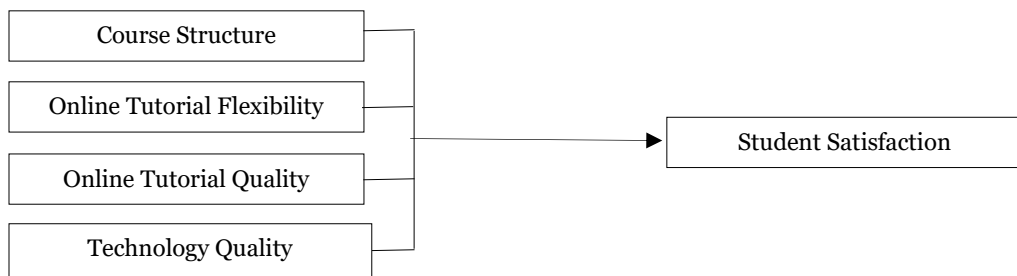


Figure 1: Conceptual framework of the study

#### 3.3. Overview of Sample and Procedures

This descriptive research study focused on the final-year students of ABC Online Academy in Sri Lanka. The target population consisted of 200 final-year students enrolled in the academy.

To determine the sample size, the researcher utilized the Morgan table with a 95% confidence interval, resulting in a sample of 132 students. Data for the study were collected through self-reporting questionnaires, which were distributed to the selected respondents using the random sampling technique. In cases where some respondents were difficult to reach, an online questionnaire was provided as an alternative method of data collection. Out of the 200 questionnaires distributed, a total of 145 valid responses were received and considered for final data analysis. An individual student served as the unit of analysis for this research. The collected primary data was carefully screened and subsequently entered into SPSS for further analysis and interpretation.

## 04. Results

### 4.1. Descriptive Statistics

Table 1: Descriptive Statistics

Variable	Mean	Standard Deviation [SD]	Max	Min	Range	Variance	Skewness	Kurtosis
Student Satisfaction	3.0438	0.76304	4.69	1.36	3.33	1.836	-0.286	-0.88
Course Structure	2.7561	1.34689	4.53	1.43	3.10	1.762	-1.536	-1.036
Online Tutorial Flexibility	2.4239	1.37263	4.67	1.23	3.44	1.926	-0.26	-2.004
Online Tutorial Quality	2.7634	1.2463	3.98	1.63	2.35	1.638	1.369	-1.299
Technology Quality	2.3364	1.35642	4.32	1.69	2.63	1.857	0.052	-1.032

### 4.2. Validity Statistics

Table 2: Validity Statistics

Variable	KMO Coefficient	Bartlett's Test [Chi-Square]	Sig.	No. of Items	Highest FL	Lowest FL	ESSL Cum%
Student Satisfaction	0.856	608.430	0.000	05	0.943	0.474	64.329
Course Structure	0.762	789.635	0.000	04	0.815	0.574	75.256
Online Tutorial Flexibility	0.795	3396.341	0.000	07	0.895	0.654	80.458
Online Tutorial Quality	0.768	3776.088	0.000	07	0.958	0.918	88.468
Technology Quality	0.861	3945.365	0.000	08	0.948	0.914	90.746

According to the KMO coefficients and the respective sig. values for both composite variables given in Table 1, the study sample seems statistically adequate to perform an EFA to assess the construct validity.

Moreover, as Table 1 depicts, ESSL Cum% for both composite variables and the independent variable are greater than 50% and the FL values of individual items in the scales used were adequate. Hence, it could be concluded that the multi-item scales are valid, and the data set seems to be statistically free from bias.

### 4.3. Hypotheses Results

Table 3: Hypotheses Results

	Correlation	Sig.	Decision
H1	0.723	0.001	Accepted
H2	0.812	0.015	Accepted
H3	0.452	0.0315	Accepted
H4	0.756	0.009	Accepted

Source: Author, 2023

### 4.4. Model Summary

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.395 <sup>a</sup>	.371	.353	.35388

a. Predictors: (Constant), online course structure, online tutorial flexibility, online tutorial quality, technology quality

b. Dependent Variable: Student Satisfaction

As shown in Table 2, online course structure, online tutorial flexibility, online tutorial quality, and the quality of technology have a positive impact on student satisfaction as shown by the value of significance test at 0.001, 0.015, 0.0315, and 0.009 (below  $\alpha = 0.05$ ). R<sup>2</sup> value in this model is also very low, 0.371, showing that only 37.1% of student satisfaction variation can be explained by course structure, online tutorial flexibility, online tutorial quality, and the quality of technology. The remaining 62.9% is determined by other factors beyond the factors examined in this research.

## 05. Discussion

Teachers who involve in E-learning now have additional obligations to complete as the course structure overtakes classroom instruction as the most important element impacting student satisfaction. They must create educational materials that are technically sound, coherent, and

structured (e.g., materials with multimedia components or hypertext structures), and they must give students the ability to practice or take examinations online as well as to connect with other students online. In the case of blended learning, teachers must integrate online and in-person learning sessions as much as possible (Paechter et al., 2009). Selim (2007) observed that items on the instructor's job list for setting up online teaching formed a distinct and significant component in a factor analysis of a questionnaire on the quality of e-learning. Additionally, the success of the course website is less important to the students who regularly visit the class Web site than an assessment of the quality of participation in other learning activities. For instance, genuine feedback from peers or a teacher may have a stronger effect on how students view their learning results. Thus, an unsatisfactory Web content design becomes less important as long as students get useful comments regarding the course materials (Eom et al., 2006).

## **06. Conclusion**

This study empirically examined the determinants of student satisfaction with online tutorials of students in ABC Online Academy, Sri Lanka. For the research, a theoretical model was established around online course structure, online tutorial flexibility, online tutorial quality and the quality of technology, and student satisfaction. These findings are not only valuable for academic institutes but also for students to make their strategies to develop their performance and satisfaction. All hypotheses of the present study are derived based on the extant literature on whether there is a significant positive impact of online course structure, online tutorial flexibility, online tutorial quality, and the quality of technology on students' satisfaction or not. In line with the result of the study, these factors can increase student satisfaction.

## **07. Limitations and Future Research**

The current study is based on a single online institute in the education industry, and the results may be limited to the specific institute. Further, the sample did not cover all courses in the institute. In order to overcome those research limitations, future researchers should get more than one institute. When collecting sample responses for the research, it is recommended to collect data covering all the online institutes in the industry. Moreover, it is recommended to study demographic factors and how student satisfaction varies according to demographic factors.

## **References**

- Arbaugh, J. B. (2002). Managing the on-line classroom: a study of technological and behavioral characteristics of web-based MBA courses. *Journal of High Technology Management Research*, 13, 203–223.
- Casey, D. (2008). A journey to legitimacy: the historical development of distance education through technology. *TechTrends*, 52(2), 45–51.
- Diekelmann, N., & Mendias, E. P. (2005). Being a supportive presence in online courses: Attending to students' online presence with each other. *Journal of Nursing Education*, 44(9), 393-396.
- Dilhani, V., & Priyashantha, K. (2021, November 11). Determinants of Intention to Use e-Government Services in Sri Lanka. *Proceedings of the 12th International Conference on Business & Information (ICBI 2021)*

- Harsasi, M., & Sutawijaya, A. (2018). Determinants of Student Satisfaction in Online Tutorial: A Study of a Distance Education Institution. *Turkish Online Journal of Distance Education*, 19.
- Lo, C.C. (2010). How student satisfaction factors affect perceived learning. *Journal of the Scholarship of Teaching and Learning*, 10 (1), 47 – 54.
- Ozkan, S., & Koseler, R. (2009). Multi-dimensional students' evaluation of e-learning systems in the higher education context: an empirical investigation. *Computers & Education*, 53(4), 1285–1296.
- Paechter, M., Maier, B., & Macher, D. (2009). Students' expectations of, and experiences in e-learning: their relation to learning achievements and course satisfaction. *Computers & Education*, 54, 222–229.
- Priyashantha, K. G., De Alwis, A. C., & Welmilla, I. (2021a). Gender stereotypes change outcomes: A systematic literature review. *Journal of Humanities and Applied Social Sciences*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/JHASS-07-2021-0131>
- Priyashantha, K. G., De Alwis, A. C., & Welmilla, I. (2021b). Three Perspectives on Changing Gender Stereotypes. *FIIIB Business Review*, 12(2), 120-131. <https://doi.org/10.1177/23197145211049604>
- Priyashantha, K. G., De Alwis, A. C., & Welmilla, I. (2022a). Disruptive human resource management technologies: A systematic literature review. *European Journal of Management and Business Economics*. <https://doi.org/10.1108/EJMBE-01-2022-0018>
- Priyashantha, K. G., De Alwis, A., & Welmilla, I. (2022b). Work-Family Conflicts in the Context of Labour Market Change: A Systematic Literature Review. *Management and Economic Review*, 7(3), 330–359. <https://doi.org/10.24818/mer/2022.10-06>
- Rebecca, E & Jayawardana, A. K. L. (2023). Telecommuting on women's work family balance through work-family conflicts. *Journal of telecommunications and the digital economy*.
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill Building Approach*. Wiley. Retrieved from <https://books.google.lk/books?id=Ko6bCgAAQBAJ>
- Sun, P. C., Tsai, Finger, G., Chen, Y.Y., & Yeh, D. (2008). What drives a successful e-learning? an empirical investigation of the critical factors influencing learner satisfaction. *Computers & Education*, 50(4), 1183–1202.