

The Impact of Technology on Student Academic Achievement in Malaysia During COVID-19 Pandemic

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Abstract

The Covid-19 pandemic has affected educational systems all throughout the world, particularly in Malaysia, where universities and schools have switched to virtual teaching methods. The purpose of this research is to investigate the effect of virtual teaching techniques, technology, and environmental distractions on student academic performance in Malaysia during the pandemic. The study used a quantitative technique, with students taking online Google questionnaires. According to the findings, virtual teaching strategies have had a considerable impact on student academic performance, with many students reporting higher levels of interest and participation than in traditional classroom settings. Technology, such as online learning platforms and virtual meeting technologies, has also played an important role in virtual teaching. However, the study also highlighted various environmental distractions, such as poor internet connectivity, home distractions, and a lack of proper study areas, that have affected student academic performance. Overall, the research provides insight on the effectiveness of virtual teaching strategies and technology in improving student academic performance in Malaysia during the Covid-19 pandemic. The findings emphasize the necessity of reducing environmental distractions to improve student learning conditions. The study's implications may be useful for students, instructors, and future researcher in Malaysia and around the world who want to use virtual teaching strategies to prevent the Covid-19 pandemic and beyond.

Keywords: Virtual Teaching Technique, Technology, Environment Distraction, Online Learning, Covid-19, Malaysia

Introduction

An unexpected worldwide pandemic of a deadly illness known as Covid-19 affected millions of individuals, forcing governments to implement nationwide lockdowns (Sharin, 2021). Governments throughout the globe have implemented national lockdowns, caused

industrial disruption, and damaged economic activity (Tan, 2021). Higher education is one of these businesses. Since the outbreak of this pandemic, UNESCO has claimed that over 1.6 billion pupils have been kept out of school in over 190 countries due to the partial or total shutdown of educational institutions. Unexpected closures also affected 100 million educators and trainers (UNESCO, 2021). Travel bans also impacted higher education, impacting student learning (Selvanathan et al., 2020). Students enrolled in face-to-face classes were subject to travel bans, quarantines prohibiting mass movement, complete lockdowns of all private and public spaces, and restrictions on movement (Tan, 2021). As a result, students in higher educational institutions and universities around the world face unexpected challenges (Selvanathan et al., 2020). Universities and other educational institutions have since switched to online learning (Sharin, 2021). As a result, the learning process is shifting from traditional teaching methods (face-to-face, face-to-face) to non-traditional (online) methods including online teaching courses and assessments using platforms such as Zoom, Teams, and various others (Azman et al., 2021). For example, the Malaysian government has used online courses to make various resources available to colleges, universities, and colleges of technology (Shahzad et al., 2021). Online education has been described by Sharin (2021) as a type of learning and teaching environment in which students use

technology to access learning materials while disconnected from their instructor. The Malaysian government has attempted to provide internet allowances for students to use the internet for online learning (Selvanathan et al., 2020). However, the expansion of online learning can face challenges and hurdles, especially for students. For example, Sia and Adamu (2021) found that not all universities in Malaysia have the necessary infrastructure and resources to support online learning in Malaysia, thus making it difficult for students, especially who have scholarships and loans students' express concerns about how to finish their studies on time. However, as the number of assignments and tests increases, other challenges such as limited high-speed internet and lack of access to gadgets increase student stress (Azman et al., 2021). As a result, all these issues can increase stress in using online learning systems. However, not all students are comfortable with online learning systems. So, students have to adapt to new ways of learning. Additionally, there are many ways for students to adapt to this new form of learning. Researchers are therefore interested in the factors that influence students' behavioral intentions to participate in online learning.

Adaptation of online learning is higher education's main challenge. Students and instructors may use online education (Selvanathan et al., 2020). Yet, instructors and students struggle with the drastic change from conventional classroom training. Yet, the dearth of data on how this transition has influenced students' learning casts doubt on online learning's efficacy (Weerathunga et al., 2021). Nonetheless, contemporary online learning research makes it hard to ignore the issues (Sharin, 2021). Many students struggle with technological and personal issues while studying online.

Financial limitations that prevent students from owning technological tools (Bisht et al., 2020), lifestyle factors (Sharin, 2021), and a lack of interest in using online learning are examples of personal obstacles (Parkes et al., 2015). After that, some online students experience technical difficulties. However, students utilizing the new technology may face significant difficulties such as the demand for a quick, steady internet connection, privacy concerns, and concerns about the effectiveness, convenience, and security of online learning (Kayali et al., 2016; El Mhouti et al., 2018). There have been no studies conducted

of university students' online learning strategies during the COVID-19 pandemic (Yunus et al., 2021). Determining whether online education may improve university students' learning throughout the pandemic is therefore important. We are aware of the prior Covid-19 study. The purpose of this research is to learn further about the concept of technology and its impact on students' academic performance during a pandemic, the challenges they faced when shifting from face-to-face lessons to online classes, and how the implementation of online learning affects students' academic achievement. First, this study will evaluate the efficiency of virtual teaching techniques in comparison to conventional face-to-face methods. It is essential to determine whether these methods can provide students with similar or even better learning results as virtual learning becomes a fundamental component of the educational system.

Second, the study may highlight issues with inclusivity and accessibility. It is critical to identify any potential differences in student's access to and use of digital resources. To ensure that all students, regardless of their financial status, can fully participate in and benefit from virtual learning, instructors and government can build focused interventions with an understanding of these issues.

Third, the study may identify environmental distractions that prevent students from learning in online spaces. Instructors can develop techniques to create a more comfortable and focused learning environment for pupils by identifying these distractions.

Finally, researching how technology and virtual teaching techniques affected Malaysia during the pandemic can offer us important lessons for future crises. The education system may be better equipped to handle similar events and enable effortless transitions to remote learning, when necessary, by taking lessons from COVID-19's experiences.

To sum up, this research topic is crucial because it addresses important concerns including the impact of technology on academic achievement, environmental distractions, and the overall success of students in these unusual times. The knowledge gathered from this study can be used to guide the creation of policies, the implementation of technology, and educational practices, ultimately improving learning outcomes and improving Malaysia's educational system. Hence, the following research questions affected the study's design.

Therefore, this study aims to achieve the following objectives

- To examine the relationship between virtual teaching techniques and student academic performance.
- To examine the relationship between technology and student academic performance.
- To examine the relationship between environment distraction and student academic performance.

The study "The Idea of Technology, and its Impact on Student Academic Achievement in Malaysia During Covid-19" is important for a variety of factors. adaptation to remote learning, As the COVID-19 pandemic spread, Malaysian educational institutions were forced, like those in many other nations, to make a swift switch to remote learning. Examining the efficiency of virtual teaching methods and technology during this time can aid in determining how effectively the educational system will adjust to such difficult conditions. Effectiveness of virtual teaching methods, many instructors and students are still getting used to virtual teaching methods. Examining their effect on students' academic progress can show if they are more effective than conventional classroom teaching techniques and point out the best strategies that produce successful results. Technological Infrastructure and Access, analyzing how technology affects student accomplishment can provide information on how

affordable and easily accessible digital materials, internet connectivity, and devices are to Malaysian students. To address possible differences and digital divides among students, this understanding is important.

Environmental distractions and learning barriers, compared to a physical classroom setting, remote learning brings a different set of distractions. This study may identify the numerous environmental elements that interfere with students' ability to learn and offer solutions for reducing their negative effects on academic performance. Student participation factors, compared to typical classroom settings, virtual learning environments can have a different impact on student participation. The results of this study can be used to pinpoint the elements that contribute to higher student involvement and the ways in which they enhance academic success. Educational approaches and support mechanisms, Investigating the efficacy of virtual teaching techniques can result in the identification of innovative educational approaches that serve as a supplement to conventional procedures. The research can also be used to highlight the support systems required to make sure that students succeed in an online educational environment. Long-term educational planning, the results of this study can provide governments and educational institutions in Malaysia with information regarding the benefits and drawbacks of technology and virtual teaching methods. This information can be used to create long-term educational programs that successfully incorporate technology into the educational system. Education system improvement, instructors and governments can work to improve the education system continuously and help students achieve better learning outcomes by understanding the effects of different factors on student academic achievement. Overall, the study "The Concept of Technology, and its Impact on Student Academic Achievement in Malaysia during Covid-19" is significant because it can assist instructors and University in understanding the effectiveness of virtual teaching techniques, the role of technology in education, and the impact of environmental distractions on student academic achievement during the Covid-19 pandemic.

This paper is structured according to six sections as follows. Section two reviews previous studies. Section three presents the methodology adopted for the study. Section four presents the data analysis and results. A result discussion is presented in section five. The final section of this study presents the conclusion and recommendations for future research.

Literature Review

Student Academic Performance

A student's performance in a classroom - based course may be evaluated using one or more of the following criteria. Individual written work for papers and exams, as well as group projects and presentations, are all required for participation in class. The degree to which a student, instructor, or institution has met their short- or long-term educational goals is referred to as performance or achievement. It is assessed either through continuous evaluation or through a cumulative grade point average. A student's performance in the case method course may be assessed against one or more of the following criteria: accomplishment or achievement refers to the extent to which a student, instructor or institution has achieved a short-term or long-term educational goal. This is measured either by continuous assessment or by cumulative grade point average.

Pokhrel & Chhetri (2020) found that recording lectures from virtual classrooms helped students, especially when there were technical issues such as internet connectivity and distractions in the environment. Additionally, several factors were identified, such as

feedback and online course design, that can affect student performance during the online learning process. Gopal R (2021) Students have choices but prefer online learning and her PaulJ. studies. Also, Jefferson (2019), a comparative analysis of student performance in online and face- to-face environmental science courses from 2009 to 2016, shows that students who study online perform better. Additional factors that may influence how well students do during the online learning process have been found, including feedback and online course design. Kok (2021) claims that the focus of student choice during the Covid-19 pandemic is the implementation of face-to-face teaching and learning as compared to online.

Kok (2021) claims that students' level of readiness for online learning is average. According to Cindy, Cristy, and Jeanine, there were no significant variations in the academic performance of students who took online or face-to-face courses. The fact that both students' academic performance was comparable for both teaching strategies further demonstrated that the teaching strategy itself is more crucial to learning than the platform employed for information transmission. Similar findings were also reached in the study by Hope et al (2021), who claimed that despite changes in test format, online learning changes did not have an impact on student performance. A study on the performance of male and female students was also conducted by Ahlam et al (2020), and the results showed that female students perform academically better during online learning than male students did. Male students demonstrated less effectiveness in their capacity for independent learning. These results, in terms of performance, motivation, perspective, and learning habits are in line with an earlier study on online learning for male and female students conducted by (Chyung, 2007). The study found that female students are more adept at enhancing performance and self- efficacy than male students.

According to Edwin (2017), when compared to their performance during in-person instruction, students who took analytic courses online performed worse academically. In the study's comparison of the academic performance of male and female students, it was discovered that female students performed particularly well when learning online. However, it was discovered that during face-to-face instruction, male students' performance was better than that of female students. When comparing face-to-face and online learning, Jahng et al., (2007) found no obvious differences. The comparison of student success, however, produced an unusual outcome when the primary studies were divided into groups based on whether the experimental study contained a pre-test. In the pre- tested group of research, there was no difference in prior knowledge between online and face-to-face learning, but online learning considerably outperformed face-to-face learning in terms of student accomplishment. On the other hand, there was no obvious difference between the two learning approaches in terms of student accomplishment in the study groups that did not include pre-testing.

Virtual Teaching Technique

Some studies show that the personality and attitude of educators are one of the factors that influence students' motivation to learn. Agreeableness, observation, cognition, emotions, and evaluation views were found to be traits of instructors that affect students' desire to gain knowledge and have a positive or negative impact on their educational experience. In another previous study, Bhagat (2019) examined the influence of personality traits on students' perceptions of online learning. The results demonstrate that different personality traits have different effects on students' perceptions of online learning.

Instructor self-knowledge also plays an important role in managing online learning tools. Dubey et al (2020); Yunus et al (2021) explored different factors in online teaching and found that young educators were more actively managing their online teaching.

This may reflect technical self-knowledge and familiarity with online learning tools. According to Mahmood (2021), the educator's voice and pitch can be used as an educational tool to capture the attention of students during online learning, and thus can be viewed, along with personality traits and self-awareness, as techniques when working with virtual classrooms. A study by Bhowmik (2021) showed that educators' personal factors, such as immediate feedback, use of online tools, and proper training on how to use online offers, have a significant impact on student learning.

The transition from the more conventional method of learning to the more modern method of virtual learning is not an easy one. There are several various aspects that might result in the students having a different kind of effect or learning experience. According to the findings of research conducted by Schmidt (2004), the learning experience of students is greatly affected by the teaching style of the instructors as well as the choice of online learning resources that are used in the students' learning environments. According to the findings of another research, the personalities or attitudes of teachers are among the characteristics that might influence the degree to which pupils are motivated to learn.

According to the findings of the study, the personalities of educators, such as being an extrovert or having a perspective that is sensing, thinking, feeling, or judging, do influence the students' desire to learn, and this influence can have both positive and negative effects on the student's overall educational experience. Another earlier research looked at the influence that personality factors have on how students perceive online learning, and the results were interesting. The findings demonstrate that various personality qualities do, in fact, bring about distinct consequences on the students' views of online learning. The instructor's own level of expertise in the use and management of online learning technologies is also an essential factor. According to the findings of research conducted by Dubey et al (2020); Yunus et al (2021), students manage online education more actively, which may be due to self-technical skill or familiarity with online learning technology. Their research examined a variety of aspects related to online teaching. However, because the COVID-19 pandemic has spread exponentially in Malaysian institutions, there has been a temporary transition of regular homerooms into e-study halls. This indicates that instructors have changed their entire teaching approach to address the new growing economy and accommodate a changing environment. Furthermore, Saxena (2020) predicted that online education would be successful when using tools like Google Meet, Google Classroom, Skype, Adobe Connect, Microsoft Teams, Zoom, and other such tools. The students will also receive a handbook on online etiquette and the proper protocols to follow while attending classes in order to ensure the efficient functioning of the learning process. Voice and pitch are also regarded as strategies in managing virtual classrooms since they may be utilized as a teaching tool to draw students' attention during online learning. In addition to personality qualities and self-knowledge, these are also considered techniques in handling virtual classrooms. Researchers Bhowmik and Bhattacharya found that personal variables of teachers, such as providing students with the rapid feedback, using e-learning technologies, and having enough training to effectively manage online delivery, had a significant impact on students' ability to learn.

As indicated by Toong et al (2021) The Coronavirus pandemic has forced the adaption to virtual learning understudies and teachers through all phases of preparing withinside the world. They concluded that virtual teaching strategies have a big effect on college students' overall performance. As per Chin et al (2022) understudies were out of school because of the Coronavirus pandemic and general well-being measures, conventional showing rehearses have been compelled to change to online interceded learning environments. Then, her two most normal issues looked at by overviewed educators were web issues and understudy association during internet learning.

Technology

Virtual learning became the main educational instrument during the pandemic. Shifting away from the traditional style of teaching and learning to virtual learning does allow flexibility, but it can also affect the students' learning perception. Virtual learning uses a variety of ICT and tech-based teaching tools for both teaching and learning. Compare Synchronous distance education (SDE) against more conventional educational approaches to determine how effective and popular it is in the field of health sciences. evaluates students' overall satisfaction, skills, and knowledge. Carrillo (2020) discusses the advantages and disadvantages of online teaching and learning in teacher education, especially in light of the present emergency remote learning situation. analyzes common characteristics found in research on online teaching and learning in teacher education.

Daoud et al (2020) analyzing the educational benefits of having internet at home for university students, focuses on the problem of equity about home internet connection. According to Schindler et al (2017) indicates a connection between students' use of Web 2.0 technologies including blogs, social networking sites, and video games and their level of learning engagement. According to Kulal and Nayak (2020), the increasing use of technology in online learning brings a positive impact on students but it also emphasizes the lack of computers or mobile devices and network connection for rural students.

According to Junus et al (2021), it seems that even though educators have strong technical skills in utilizing teaching-based technology, unstable internet connection remains the primary concern. Mobile learning has been popular among teenagers because of its extraordinary accessibility, mobility, and flexibility: "Anyone, Anytime, anywhere" (Park et al., 2012). Google Drive, Google Docs, Gmail, and Calendar are all part of the well-known classroom management system known as Google Classroom.

According to Hamzah et al (2021), showing utilizing computerized innovation is a new change in the schooling system, particularly during the rise of the Coronavirus pandemic. The Malaysian Service of Training (MOE) is an imaginative endeavor to foster the abilities and capability of understudies utilizing advanced innovations. The consequences of this study show that the two chiefs' computerized initiative and instructors' computerized showing rehearses are at a significant level. Be that as it may, the positive relationship between the two is moderate. A different relapse examination observed that the main computerized citizenship was a major area of strength for an educator's advanced guidance.

Environment Distractions

Most studies are related to personality traits, technologies, usage of learning tools, or lack of devices for learning, but there is another factor that brings impact to the student's online learning process, which is an environmental distraction. Research on this factor is very limited compared to other factors. Several studies have been done to identify what kind of

distractions would influence students' concentration in class and they found that students are easily distracted using mobile devices such as mobile phones (Attia et al., 2017). Another study researched what makes students get distracted in the first place during the learning process and found that it can be external factors (e.g., baby crying, people arguing in the same space) or internal factors (e.g., thinking of something, checking social networking sites). Pokhrel & Chhetri (2020); Coman et al (2020) showed that there are distractions from surroundings or family members, which means it is hard to focus on learning. Another study by Vargas et al (2020) found that environmental conditions such as lighting, noise, and temperature impact students' learning performance. According to Aurturo (2020) study showed that temperature, lighting, and noise have significant direct effects on university students' academic performance, and it was obtained that the three independent variables have an impact in the sustainability of university students.

As indicated by Shee & Lip (2022) Malaysian specialists proclaimed a Development Control Request (MCO) to forestall the spread of the infection. Instructive foundations had been constrained to change their teaching method to web-based figuring out how to finish the semester educational plan and getting academicians and undergrads off-safeguard that finished in shoddy online illustration conveyance. According to finding Uncovered the meaning of regional learning environmental factors in cultivating understudy inspiration and the positive effect of student educator corporations on undergrads arriving at the favored learning outcomes generally through impromptu progress to web-based learning. Be that as it may, there's no verification to mean a causal effect among understudy self-visibility and web-based learning inspiration all through such circumstances. The hypothetical ramifications show that having favorable cleanliness components are critical to utilizing understudy inspiration under such circumstances.

Research Methodology

According to Zikmund & Babin (2015), a study design is a planned process that outlines the steps to take to gather and analyze the required data. There are many different designs, including qualitative, quantitative, and mixed method designs, which integrate qualitative and quantitative methodologies. In this study, measurements were the focus of the quantitative research method used to investigate the relationship between virtual teaching techniques, technology, and environmental distraction toward student performance.

This study focuses on the population of students who are currently studying for degrees in private universities in Malaysia around Klang Valley. According to Higher Education Statistics in 2021, there is a 1,207,593 total population in higher education institutions in Malaysia for both male and female students at all levels of higher education institutions. Students' views provide the best chance of gathering accurate data for this survey. According to Krejcie and Morgan's sample table, the sample size needed from the population is 384. The target demographic as a whole and no one other than that population should be involved. In this study, a simple random sampling will be used. Every person in the population has an equal probability of getting chosen in a simple random sampling.

The analysis's focus is on students who are presently enrolled in degree programs at Klang Valley universities. The data gathered for this study were examined using SPSS, which stands for Statistical Package for the Social Sciences. The information gathered from the survey is entered into SPSS for analysis. Additionally, the association between Virtual Teaching Technique, Technology, Environment Distraction (independent variable), and Student Performance (dependent variable).

Data Analysis and Findings

The survey was conducted among students currently pursuing a degree at a private university in the Klang Valley. According to Krejcie and Morgan's sample table, the sample size is 384. The survey was distributed to members via Google Forms. Only 302 responses were collected successfully.

Table 1

Demographic table of respondent (Gender)

Gender		N (302)	Percent	Valid Percent	Cumulative Percent
Valid	Female	152	50.3	50.3	50.3
	Male	144	47.7	47.7	98
	Prefer not to say	6	2	2	100
	Total	302	100	100	

The female students dominated the unit where the total is 152, which is 50.3% of the respondent. The male students responded to the questionnaire is 144 which is 47.7% from total respondent. The prefer not to say student responded to the questionnaire is 6 which is 2.0%. The result is highly expected as there are more female students are actively responding than the male students to the questionnaire in general.

Table 2

Demographic table of respondent (Age)

Age		N (302)	Percent	Valid Percent	Cumulative Percent
Valid	20 - 25 years old	234	77.5	77.5	77.5
	25 - 30 years old	31	10.3	10.3	87.7
	31 - 40 years old	4	1.3	1.3	89.1
	Less than 20 years old	33	10.9	10.9	100
	Total	302	100	100	

Based on the table above, most of the respondents came from the age group between 20–25 years at 234 in total which represents 77.5% of the total respondent. Following age group less than 20 years at 33 in total which represents 10.9% of the total respondents. The age group between 25-30 years old at 31 in total which represents 10.3% of the total respondent. The least age group is the 31- 40 years old age group at 4 in total which represents only 1.3% of total respondent. The age group between 20-25 made up the greatest number of students who are currently pursuing degrees in private universities around Klang Valley. While the group between 31-40 years old are the least pursuing degree in private institutions around Klang Valley.

Table 3

Demographic table of respondent (University)

University		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BAC	4	1.3	1.3	1.3
	MMU	80	26.5	26.5	27.8
	MSU	74	24.5	24.5	52.3
	OTHERS	6	2.0	2.0	54.3
	UNITAR	138	45.7	45.7	100.0
	Total	302	100.0	100.0	

The highest number of student respondents are from UNITAR at 138, which is 46%. Following the student respondent from MMU are 80 which is 26.5% from the total respondent. Besides that, student respondents from MSU are 74 which is 24.5% of the total respondent. Lastly the student respondents from other Universities are 6 which is 2 % from total respondent.

Table 4

Demographic table of respondent (Course)

Course		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B. Accounting	15	5.0	5.0	5.0
	B. Education	17	5.6	5.6	10.6
	B. Computer Science	35	11.6	11.6	22.2
	B. Early Childhood Education	5	1.7	1.7	23.8
	B. Law	3	1.0	1.0	24.8
	BBA	115	38.1	38.1	62.9
	BIT	108	35.8	35.8	98.7
	OTHERS	4	1.3	1.3	100.0
	Total	302	100.0	100.0	

The largest group of respondents is the students pursuing BBA (Bachelor Business Administration) are 115 which are 38.1% from total respondent. Following, students are pursuing BIT (Bachelor Information Technology) are 108 which are 35.8% from the total respondent. Besides, students pursuing Bachelor of Computer Science are 35 which is 11.6% from total of respondent. The student is pursuing Bachelor Education are 17 which are 5.6% from the total respondent. Moreover, student is pursuing Bachelor Accountings are 15 which are 5.0% from the total respondent. Students pursuing Bachelor Early Childhood Education are 5 which are 1.7% from total respondent. Students pursuing Bachelor Laws are 3 which are 0.10% from total respondent. The other number of students pursuing Global securities,

MBBS, Mechanical engineer and Software engineering are 4 which is 1.3% from the total respondent.

In this study, Q-Q Plot served as the evidence for normality tests to determine if there were extreme outlier for virtual teaching technique, technology, and environment distraction towards student academic performance. For normally distributed data, observations should lie approximately on the straight line. If the data is not normal, the points form a curve that scattered away from a straight line (Allen, 2018).

Based on the overall findings as shown in Figures 1 to 4.4 below, it was found that all variables tested indicated normal distribution. Since it shows a reflection normal distribution, hence Pearson Correlation Product Moment Coefficient was used to determine the relationship of independent variable towards dependent variable.

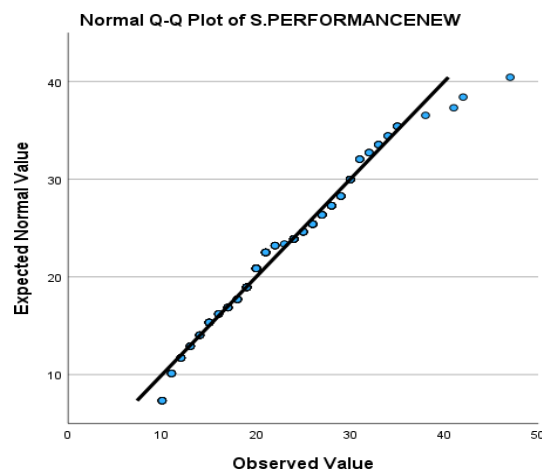


Figure 1: Normal Q-Q Plot for Student Academic Performance

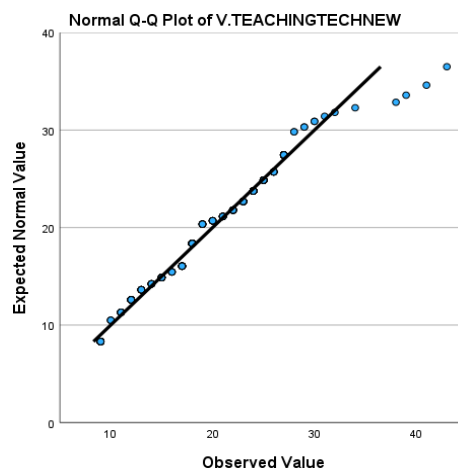


Figure 2: Normal Q-Q Plot for Virtual Teaching Technique

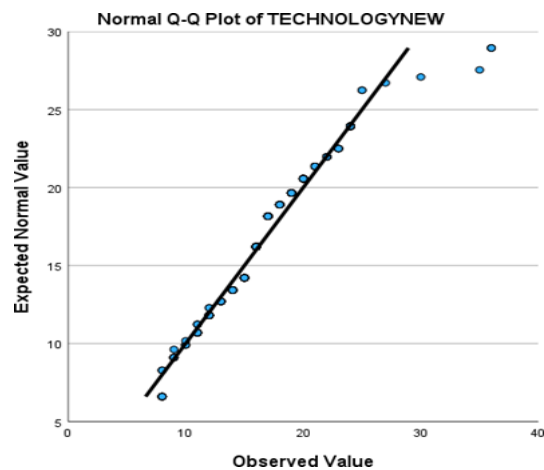


Figure 3: Normal Q-Q Plot for Technology

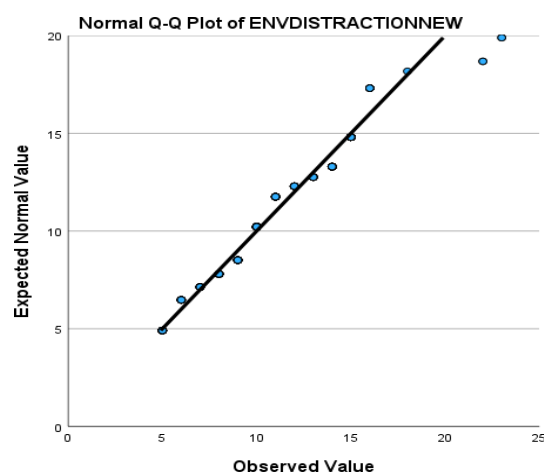


Figure 4: Normal Q-Q Plot for Environment Distraction

The correlation study looks at how closely the dependent variable—student academic performance— relates to the independent variables—virtual teaching methodology, technology, and environment distraction. Between -1 and +1, the correlation coefficient was calculated between two variables. A weak negative correlation ($r = 0.20$), a moderate negative correlation (-0.30 r -0.50), a strong negative correlation (-0.60 r -0.80), and a very strong negative correlation (-0.90 r -1.00) are examples of Liew Yee Ping's (2021) interpretation of the r value, which is shown in Table 5 below. Strong positive association ($r > 0.80$), very strong positive correlation ($r > 1.00$), weak positive correlation ($r = 0.20$), moderate positive correlation ($r > 0.30$), and strong positive correlation ($r > 0.60$).

Table 5
 Correlations Analysis Results

Details		Virtual Teaching Technique	Technology	Environment Distraction	Student Academic Performance
Virtual Teaching	Pearson Correlation	1	.854**	.852**	.870**

Technique	Sig. (2-tailed)		<.001	<.001	<.001
	n	302	302	302	302
Technology	Pearson Correlation	.854**	1	.863**	.829**
	Sig. (2-tailed)	<.001		<.001	<.001
	N	302	302	302	302
Environment Distraction	Pearson Correlation	.852**	.863**	1	.865**
	Sig. (2-tailed)	<.001	<.001		<.001
	N	302	302	302	302
Student Academic Performance	Pearson Correlation	.870**	.829**	.865**	1
	Sig. (2-tailed)	<.001	<.001	<.001	
	N	302	302	302	302

Based on results in Table 5 analysis results of research objectives concluded where

- The findings from analysis for virtual teaching technique in Table 5 indicates where $r = 0.870$, $p < 0.01$. Therefore, there is a significant strong positive relationship between virtual teaching techniques towards student performance. This influence between virtual teaching technique and student academic performance implies that a change in virtual teaching technique can strongly affect the academic performance of the students which predicts the performance during online class. Moreover, the results show that when the quality of virtual teaching technique improves the student academic performance will improve.
- The findings from analysis for recognition in Table 5 indicates where $r = 0.829$, $p < 0.01$. Therefore, there is a significant strong positive relationship between technology towards student performance. This influence between technology and student academic performance implies that a change in technology can strongly affect the academic performance of the students, which predicts the performance during online class. Moreover, the results also indicates that when there is no access technology during class the student academic performance is poor and there is access technology the student academic performance are getting improved, and students are finds easier to go through via recorded class.
- The findings from the analysis of advancement in Table 5 indicates where $r = 0.865$, $p < 0.01$. Therefore, there is a significant strong positive relationship between environment distraction towards student performance. This influence between environment distraction and student academic performance implies that a change in environment distractions can strongly affect the academic performance of the students which predicts the performance during online class. Moreover, the results also indicate that when there is less environment distraction during class the student academic performance is higher and there is more environment distraction the student academic performance is getting poor.

Overall, the impact of technology, virtual teaching techniques, and environmental distractions on student academic achievement in Malaysia were investigated through a survey of students and teachers. The results showed that a significant number of students faced challenges related to access to technology and access to devices and internet connectivity and faced challenges related to the use of virtual teaching techniques, such as lack of training and difficulty engaging students. Additionally, environmental distractions were a significant challenge for many students, such as noise, household chores, and other family members while studying from home. Overall, the data analysis and findings suggest that the impact of technology, virtual teaching techniques, and environmental distractions on student academic achievement are significant. Addressing these trainings requires a multi-faceted approach that includes improving access to technology, providing teacher training, and addressing environmental distractions.

Discussion

The most crucial information in this paper is the difficulties that students encounter while engaging in virtual learning in Malaysia. The availability and dependability of technology, the need for instructors to adapt their teaching methods to digital reality, and the environment being a key distraction for students are all examples. Virtual teaching strategies, such as increased flexibility and access to resources and experts, can also have a good impact on student academic progress. The impact of technology, virtual teaching approaches, and environmental distractions on student academic progress in Malaysia, on the other hand, is complex and diverse, and it must be addressed to guarantee that all students have access to quality education. The research objective is to find out the relationships between the concept of technology and its impact on students' academic performance. There are three factors of which are the independent variable in this study virtual teaching technique, technology, environment distraction, and student academic performance are the variables used in this study. These variables are mapped into the model as shown in the results of the study have shown a positive strong relationship between the independent variable (virtual teaching technique, technology, and environment distraction) and dependent variable (student academic performance).

The research revealed that virtual teaching techniques have a notable impact on student's performance in virtual classrooms. In this regard, the response shows that lecturers' teaching style, which incorporates collaborative learning and personalized learning during virtual learning, has an impact on their performance. In addition, students also believed that teaching techniques used by their lecturers to deliver the course lesson in a virtual classroom positively affect their performance in the course. A previous study showed that if the teaching techniques are not matched with students' learning techniques, it would impact on students' academic performance. Similarly, another study revealed that there is an impact of lecturers' teaching styles on the student's academic performance.

The survey results showed a significant and positive relationship between technology and its impact on student's performance in the virtual classroom. It showed that students recognize the significance of technological tools in relation to their performance. They perceive the importance of game-based learning or gamification learning with regard to their performance in the virtual classroom.

According to previous studies, an education environment with gamification resulted in poorer academic performance of university students. The results of this study also indicated that environmental distraction is negatively associated with the impact on student's performance

in the virtual classroom. It showed that all students never consider the significance of background noise, like bird chirping, dog barking, building construction, road traffic, and other distractions with regard to their performance in the virtual classroom. According to previous studies, loud noise during virtual learning can negatively affect students' academic performance in a virtual classroom.

The following are the implications of the study on the concept of technology and its impact on student academic achievement in Malaysia. Nowadays, technology has become a crucial instrument for teaching. The study discovered that, as traditional classroom learning has been disrupted by the pandemic, the use of technology in education has expanded dramatically. As a result, educational institutions must keep adopting technology and implementing it into the teaching and learning process. Technology has the potential to improve student academic achievement. The study discovered that students who used technology more regularly for academic pursuits outperformed their classmates. As a result, instructors should encourage students to use technology to improve their academic performance. During Covid-19, there are challenges in the use of technology in education. Several students faced problems such as insufficient access to technology, poor internet connectivity, and a lack of technical skills to successfully use technology. Thus, educational institutions should seek to address these difficulties and ensure that students have equal access to technology. Educators and governments should focus on the potential that technology provides in education. According to the findings of the study, technology provides opportunities such as flexibility, engagement, and individual learning. As a result, teachers and administrators should aim to maximize these possibilities to improve educational quality. The study emphasizes the importance of further research into the impact of technology on education.

Conclusion

The purpose of this research is to investigate the effect of virtual teaching techniques, technology, and environmental distractions on student academic performance in Malaysia. The findings reveal that there are significant strong positive relationships between virtual teaching techniques, technology, and environmental distraction towards student performance. The study's findings can help to build better online learning practices. The study emphasizes the importance of reducing environmental distractions to improve student learning and academic progress.

The findings can be used to inform policies and programs targeted at establishing a comfortable learning environment, particularly in online learning settings. Insights into excellent teaching practices that use virtual teaching tools to improve student learning and academic accomplishment are provided by the study. The insights can be used to improve the design and delivery of online courses. The study provides a foundation for future research on the impact of virtual teaching strategies and environmental distractions on student academic progress, particularly in the setting of online learning. The findings can help shape future research studies and activities. Overall, the research strengthens the existing research on the effect of virtual teaching techniques and environmental distractions on student academic achievement, as well as provides valuable insights into the potential of virtual teaching techniques to support student learning and academic achievement, as well as the importance of order to reduce the environmental distraction.

Based on the findings of this research, here are some recommendations for future researchers. Researchers can conduct research on the learning, motivation, or behavioral stages. Future research studies could investigate the effectiveness of various virtual teaching

strategies in improving student academic accomplishment, as well as the elements that determine their effectiveness. In addition, Future research studies could investigate the role of technology infrastructure in supporting online learning and improving student academic achievement. Moreover, Future research studies could investigate the impact of environmental distractions on student academic achievement in online learning contexts and discover effective techniques to reduce their effects.

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