Impact of Online and Face-To-Face Learning Mediums on Satisfaction Among Accounting Students in KPTM Bangi

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Abstract
Purpose: This study aims to investigate the impact of online and face-to-face learning mediums on satisfaction among accounting students in KPTM Bangi.
Design/methodology/approach: The population of this research is students from Bachelor of Arts (Honors) in Accounting and Finance (BAAF) in Kolej Poly-Tech Mara Bangi. However, only students enrolled in year 2 and year 3 from BAAF will participate in the sample size of 189 students. The research collects data from survey questionnaires and analyses it using the Statistical Package for the Social Sciences (SPSS) for statistical data analysis.
Findings: This study discovered a significant relationship between face-to-face and online classes, as well as their impact on student satisfaction among year 2 and year 3 BAAF students at KPTM Bangi. The results showed that both independent factors had a significant impact towards student's satisfaction.
Research limitations/implications: Future researchers shall include the data to other KPTM institutions in different campuses as it is highly likely that the results do not accurately reflect accounting students attending other higher education institutions because the sample was obtained from a single higher education institution. This is because the sample was obtained from a single higher education institution. Other than that, it is possible that the results of this study do not accurately reflect the circumstance in its entirety. This is because the study itself has some limitations. There are students at KPTM Bangi who are enrolled in diploma programs. However, these students are unable to be included in the sample for this research because the nature of their program does not comply with the standard for this research.
Practical implications: This study compares the student's satisfaction on different mediums of study for accounting students, so the student can choose the most effective way to learn.
Originality/value: This study visualizes the student's satisfaction based on different learning mediums.

Keywords: Accounting, learning mediums, student's satisfaction.

Introduction
According to Mukhtar et al. (2020, p.28), an online learning platform is web-based software that is used to distribute, oversee and manage courses via the Internet. It also employs technological advancements to help create, deliver and assist with the creation of educational content. This platform provides a useful and convenient way to achieve higher learning standards. According to ISUCelt (2022), face-to-face learning happens synchronously in a physical learning environment, which tends to mean that students and educators are normally

located simultaneously in one place. Face-to-face interaction with both students and educators, as well as among students, is an essential element of the regular classroom.

According to Alvarez (2020, p.115), some thought that using ICT was "time consuming". Hence, the level of impact in teaching will be decreased because of excessive workloads, resulting in a decreasing level of satisfaction for students in learning. As mentioned by Nicolaou, Matsiola and Kalliris (2019, p.196), contemporary students belong to a generation that has a short attention span and wants to learn at their own pace. Thus, educators need to decide what is the best learning approach to solve the recurring problems in absorbing learning materials. In contrast, according to Cole (2016, p.621), learning is already a difficult task; then, students must learn the technology of online courses as well as course content, which may cause additional difficulties for online students.

The importance of this study is to investigate the impact of online and face-to-face learning on the satisfaction among accounting students in KPTM Bangi. Firstly, by measuring the impact of online accounting courses on student satisfaction, this study contributes to the scarce research towards the online courses in the accounting field. Supported by Herrador-Alcaide, Hernandez-Solis and Sanguino Galvan (2019, p.2), students can create and develop their own learning paths in a virtual environment, personalize e-tool use, and make learning decisions based on their individual schedules. Second, this study will be conducted to study the student's satisfaction in face-to-face learning medium. Supported by Driscoll et al. (2012, p.315), students attending face-to-face classrooms are considerably more likely to raise technical questions during discussion than topics written on the class materials. As a result, students will have a better knowledge of the lesson and be satisfied with this specific learning style.

Research Objectives
To investigate the impact of online and face-to-face learning mediums on satisfaction among accounting students in KPTM Bangi.

Research Question
What is the impact of online and face-to-face learning mediums on satisfaction among accounting students in KPTM Bangi?

Literature Review
Impact Of Online Learning
It is possible that the technological tools utilized during the learning process will have a significant effect on the level of interaction that occurs in online learning. According to Kuo et al. (2013, p.17), a lack of confidence in making use of information and communication technology (ICT) will become a factor that has an effect on the effectiveness of online education. Educators and those who design online courses need to explore ways to improve the organization of online courses, including the creation of features that restrict the expression of negative emotions while amplifying the expression of positive emotions during the whole class session (Singh, Steele and Singh, 2021, p.6939).

It has been suggested that factors such as self-confidence in using computers and the internet, as well as self-efficacy in online communication, may significantly affect the impact of online learning. This applies with the goal of ensuring that students are fully prepared to learn when participating in online learning (Yilmaz ,2017, p.252). According to Kuo et al. (2014,

p.36), the interaction between learner-instructors and learner-learners is another factor that will affect the impact of online learning. Students are required to engage in conversation with their teachers in order to ensure that they are comprehending the material that is being presented to them because online learning is an interactive process that depends on active communication between both sides.

According to Jovic et al. (2017, p.73), one of the most frequently mentioned impacts of online education is that it can be completed at any time and in any location, due to sporadic communication period and cooperative work in groups. Students today can enjoy the ability to make a choice regarding the timing and location of their access to digital material. According to Bhagat et al. (2019, p.98), in addition, online classes are able to accommodate a greater number of students at any given time, can be held more frequently, and save money on facility expenses that would otherwise be incurred to accommodate the large number of students. As a result, the percentage of students who actually participate in class activities will rise and there won't be any reason to be concerned about constraints like limited time or space.

Impact Of Face-To-Face Learning

According to Bali (2018, p.2), the impact of face-to-face learning is built or taught through social interaction. It helps improve students' learning and enhances student knowledge, which also positively affects the achievement of learning outcomes. Next, the impact of having face-to-face classes is that it can also improve the effectiveness of students in learning with specific learning styles. No digital communication can replace the physical presence learning that takes place in a face-to-face environment, such as great spontaneous discussions or overheard statements throughout classes (Chen, Lambert and Guidry, 2010, p.1223). Johnson et al. (2000, p.46), stated that face-to-face learning has a good impact on students when they receive live and dynamic forms of support from the lecturer, such as direct contact with the lecturer and a part-time teaching assistant.

In the opinion of Radwan Ali and M. Leeds (2009, p.2), the impact of face-to-face gatherings in academic settings has the potential to provide opportunities for students to make acquaintances and build friendships, develop and form study groups. It is a good impact because it enhances the interactions with other students. According to Thai et al. (2020, p.399), face-to-face learning has a greater impact on students because the environment can influence learning performance. Additionally, face-to-face mediums receive immediate feedback from the instructor in the class.

Student's Satisfaction

Kanwar and Sanjeeva (2022, p.2) defined student satisfaction as a brief mindset that occurs as a result of the student's academic experience. It is a multidimensional process influenced by numerous factors. The most influential factor on student satisfaction is GPA. Students' satisfaction with their educational experience is a significant tool for evaluating teaching quality and institutional effectiveness. It is crucial because student satisfaction is linked to student performance, and it improves the factors that contribute to high-quality education (Saeed Hussain et al., 2014, p.4343).

According to Giannousi et al. (2009, p.62), students who are satisfied with any specific learning medium will be less likely to drop out of class due to non-academic reasons, become more motivated to participate in extra classes and will influence other students to join the

class. Plus, teachers also play big roles in influencing students towards satisfaction in studying through reliability of the lecturer's teaching style, certainty in the lecturer's competency and expertise, as well as the lecturer's compassion towards students (Duque, 2013, p.5).

According to Gruber et.al (2010, p.108), student satisfaction is defined as "the favorableness of a student's subjective evaluation of the various educational outcomes and experiences. The repeated interactions with campus life shape student satisfaction over time. According to recent findings, happy students may attract new students by spreading the word about the school to their friends and acquaintances and returning to enroll in additional courses. Fauziah et al. (2015, p.407) states that student satisfaction with an online or in-person learning environment is critical because it can boost the student's motivation to pursue their studies.

Previous Finding
Previous studies comparing student satisfaction with online and face-to-face learning mediums provided incongruent results. According to the few comparative studies of face-to-face and online learning mediums, students in face-to-face accounting studies are shown to be more satisfied with their classes and instructors than those in online classes (Chen et al., 2013). As stated by Chen et al. (2010a), students in face-to-face classes had greater desire to succeed and felt that the instructor's responses to students' questions improved their understanding of the lecture, making them more satisfied with the face-to-face classes. Chen, et al. (2010b) discovered that students in face-to-face classes were more satisfied with group work and their own learning outcomes than students in online classes.

As stated by Racca and Robinson (2016, p.39), student satisfaction with an online class is greater and comparable to face-to-face classes when students are given the option to self-select a course delivery method. Basuony et al. (2020, p.12), found that the platforms for online classes have a negative effect on student satisfaction, as students are dissatisfied with the platform due to the highly complicated system and lack of technical understanding of these platforms compared to having face-to-face classes, which do not require use of complicated platforms. Faidley (2018, pp.42-43) discovered that students in online learning are much less satisfied with their classes than students in face-to-face learning because studying accounting online was perceived as less interesting and more difficult to learn, leading students to assume the course was less effective in allowing students to master material. Hilton and Barnes (2020, p.5) stated that student satisfaction with online lecturers is lower than with face-to-face lecturers and converting a course from a face-to-face delivery mode to an online mode seems to lower satisfaction of students with the course.
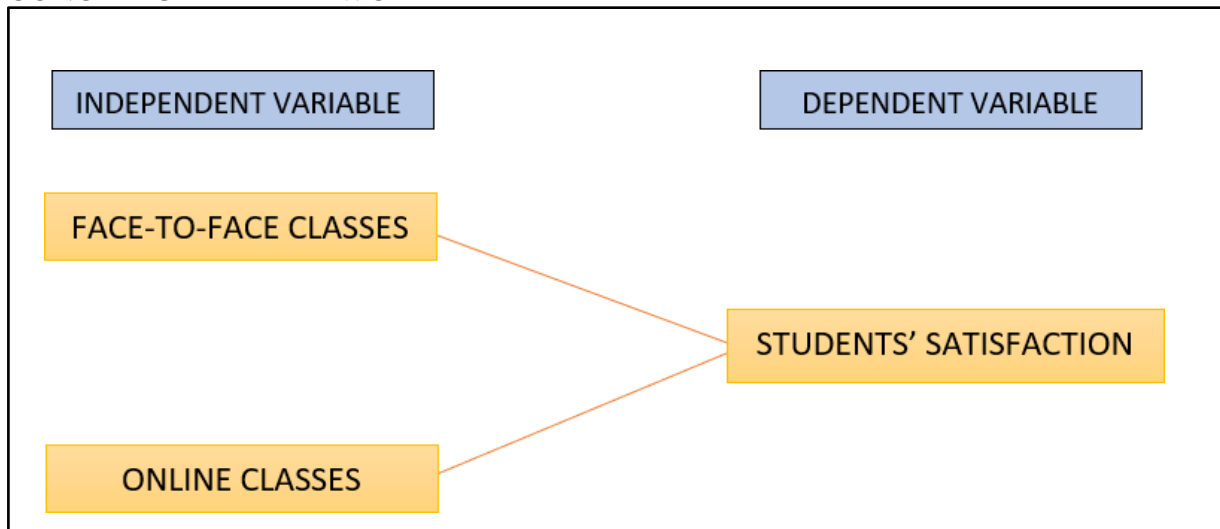
CONCEPTUAL FRAMEWORK

FIGURE 2.1: CONCEPTUAL FRAMEWORK

Methodology
Research Designs
According to Almeida, Faria and Queiró (2017, p.383), the most frequent quantitative research methodologies are surveys and correlational studies. According to Sharma (2017, p.749), probability sampling is a sampling technique in which the probability of selecting every individual is similar. In our conducted research, we are using cluster sampling technique, which is when the entire area of the study seems to be very vast; it is best for the researcher to break the sample population into smaller sections of the same or comparable size and then pick randomly from the smaller group (Etikan and Bala, 2017, p.3).

Population And Sample Selection
According to Shukla (2020), population refers to the total number of units or specified groups that show the variable characteristic about to be evaluated and for which the research's findings can be generalised. The population of this research is students from Bachelor of Arts (Honors) in Accounting and Finance (BAAF) in Kolej Poly-Tech Mara Bangi. However, only students enrolled in year 2 and year 3 from BAAF will comprise a sample for this study. The estimation number of the population for this research is 360. In order to determine how many people should make up our sample size for our research, we used the "Determination of Sample Size by Krejcien and Morgan Table". Referring to the table, due to our target population being approximately 360 people then the sample size should be 189 people.

Data Collection
The data used in this research is primary data obtained by giving questionnaires to the KPTM Bangi students. The primary data is used to estimate the data collected from students enrolled in the Bachelor of Arts (Honors) in Accounting and Finance (BAAF) programme at KPTM Bangi in year 2 and 3.

Data Analysis
Our research collects data from survey questionnaires and analyses it using the Statistical Package for the Social Sciences (SPSS) for statistical data analysis. According to Azman Ong and Fadilah Puteh (2017, p.18), SPSS is easy to use and has a wide range of statistical tests

available. This software performs both comparison and correlational analysis, which makes the process of completing the statistical analysis simple and smooth.

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Data Analysis
Frequency Of Respondents
Figure 4.1 shows the frequency and percentage of respondents by gender for this study. Males account for 38.1% of the total, while females account for 61.9% of the total.

Figure 4.1: Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	117	61.9	61.9	61.9
	Male	72	38.1	38.1	100.0
	Total	189	100.0	100.0	

Year of Study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Year 2	115	60.8	60.8	60.8
	Year 3	74	39.2	39.2	100.0
	Total	189	100.0	100.0	

Figure 4.2: Years of Study

On the other hand, figure 4.2 shows the frequency and percentage of respondents by year of study. According to the table, 60.8% represent Year 2 and 39.2% represent Year 3. Most respondents in this study are female and from Year 2.

Normality Test
A normality test is typically carried out to see if the research on the data is representative of a population that has a normal distribution. The normal distribution of data is the foundation for many statistical techniques, including correlation, regression, t-tests, and ANOVA, sometimes known as parametric tests (Editage, 2022).

Table 4.3: Normality Analysis

Independent Variable	Skewness Value
Online Learning Medium	-0.259
Face-to-face Learning Medium	-0.368

According to James (2023), skewness indicates the direction of extreme values. In a distribution with a positive skew, the right tail is longer than the left tail. The distribution curve's outliers are further to the right and closer to the mean on the left. A normal distribution has a zero skewness, and symmetric data should have a skewness close to zero (itl, 2021).

Negative skewness numbers show skewed data to the left, whereas positive skewness values suggest skewed to the right. When the value falls between -0.5 and 0.5, the distribution is considered to be fairly symmetrical (oracle, 2023). Stated by Megan M. Griffin (2013, p.176), skewness values between 3 and + 3 are acceptable, and kurtosis values between 10 and + 10 are acceptable when applying SEM. Based on the normality test results, the skewness value of online learning medium is -0.259 and the skewness value of face-to-face learning medium is - 0.368, indicating that our data are normally distributed.

Reliability Test
According to the Indeed Editorial Team (2023), a reliability test involves performing the same test on various groups or testing the same group in various ways. If it could provide the same outcomes, that means the data collected throughout the research that has been done is likely reliable and not unaffected by external factors.

Alpha Coefficient Range	Strength of Association
<0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
0.9	Excellent

Figure 4.4: Reliability Analysis Strength of Association

Cronbach's alpha was applied in this study to evaluate the reliability of the survey questionnaire. The most widely used indicator of internal reliability and consistency is Cronbach's alpha. It can be correlation-efficient when the range is between 0 and 1 and is therefore referred to as a measure of scale reliability. A result is deemed acceptable in terms of reliability if the alpha value is higher than 0.6 and less than 0.6 is not. As shown in figure 4.4, it provides a general guideline for the Cronbach alpha value (Amanuddin Shamsuddin et al., 2015).

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.902	.903	24

Figure 4.5: Reliability Analysis

The research study provided a questionnaire containing 24 questions grouped into 6 sections, with about 2 to 6 questions in each section, to analyse the impact of online and face- to-face learning mediums on satisfaction among accounting students. Each question was evaluated on a 7-point Likert scale with options of Strongly Disagree (1), Disagree (2), Somewhat Disagree (3), Neutral (4), Somewhat Agree (5), Agree (6), and Strongly Agree (7). To assess the reliability of the questions, a Cronbach's Alpha test was performed on a sample.

size of 189 students. Figure 4.5 shows Cronbach's alpha for this study. Cronbach's alpha is 0.902 for the study's overall questionnaires. The excellent strength of association implies that all question items in the survey questionnaire are reliable and can be used in future analyses.

Pearson Correlation
According to Bhandari (2021), correlation analysis is used to identify and quantify the degree of relationship between two or more variables, without the researcher manipulating or controlling those relationships. A bivariate correlation is used to compute Pearson's correlation coefficient for this study. Pearson's r range is from -1 to +1. If it's negative, that means it's a perfect negative correlation with the variable; if it's positive, that means it's a perfect positive correlation; but if it's 0, that means there is no linear correlation at all.

Size of Correlation	Interpretation
.90 to 1.00 (−.90 to −1.00)	Very high positive (negative) correlation
.70 to .90 (−.70 to −.90)	High positive (negative) correlation
.50 to .70 (−.50 to −.70)	Moderate positive (negative) correlation
.30 to .50 (−.30 to −.50)	Low positive (negative) correlation
.00 to .30 (.00 to −.30)	negligible correlation

Figure 4.6: Interpretation of Correlation

In this study, we are using a table in Figure 4.6 to measure the strength of the correlation coefficient.

Correlations

		Computation of Overall Satisfaction	Computation of OL Learning	Computation of F2F Learning
Computation of Overall Satisfaction	Pearson Correlation	1	.594**	.518**
	Sig. (2-tailed)		<.001	<.001
	N	189	189	189
Computation of OL Learning	Pearson Correlation	.594**	1	.140
	Sig. (2-tailed)	<.001		.054
	N	189	189	189
Computation of F2F Learning	Pearson Correlation	.518**	.140	1
	Sig. (2-tailed)	<.001	.054	
	N	189	189	189

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 4.7: Correlation Analysis

The findings in Figure 4.7 show that the correlation between the computation of overall satisfaction, the computation of online learning, and the computation of face-to-face learning

itself is indistinguishable. Each has an r = 1 correlation with itself, and no observations are missing (n = 189).

Following that, the correlation between the computation of overall satisfaction and the computation of online learning based on non-missing observations (n = 189) is r = 0.594. Figure r = 0.594 indicates a moderate positive correlation between these two variables. Meanwhile, the correlation between the computation of overall satisfaction and the computation of face-to- face learning is r = 0.518 (n = 189). This correlation is a little bit weaker than the correlation between overall satisfaction and online learning, but it is still a moderate positive correlation.

However, the correlation between the two independent variables, which are the computation of online learning and the computation of face-to-face learning, respectively, is significant (r = 0.140, p<0.001). In summary, the positive relationship is significant when the p value is moderate, meaning that these variables tend to increase together because the strength is approximately moderate.

Multiple Regression
To determine which factors, affect a particular subject, regression analysis is an effective tool. Using a regression analysis can accurately identify the most influential variables, the least significant ones and the relationships between them. (Gallo, 2015).

Figure 4.8: Regression Analysis

Figure 4.8 shows the result of multiple regression analysis in this particular study. From the figure, we can see that 54.6% of DV have been explained by IV at a significant level of 1% with adjusted R square of 0.541, F = 111.749, p < 0.01. Therefore, 54.6% of the variation in student satisfaction has positive significant relationship variation with face to face and online learning medium. As the F-value was significant at 1%, it can be concluded that the overall model is fit. The unstandardized Beta-coefficient for the face to face had a significant value of 0.442, while online learning had a significant value of 0.456. Due to the fact that the significant value is greater than 0.01, it is evident that both variables have a significant impact on the satisfaction experienced by the students.

Conclusion

In conclusion, the research that was presented earlier makes it abundantly clear that the level of contentment experienced by accounting students is significantly correlated with both face-to-face and online learning mediums. There was a correlation of 54.6% between the variables that were independent of each other and the variable that was being investigated (adjusted R square). The findings are also statistically significant when p is less than 0.01.

Findings And Discussions
Discussion Of Findings
Overall, this study shows that online and face-to-face learning mediums have a significant impact on student satisfaction for year 2 and year 3 accounting students at KPTM Bangi. The findings in this study are consistent with Fortin et al. (2019), who found that when both the content and the structure of face-to-face and online learning mediums of accounting classes are similar, there is no difference in students' overall learning satisfaction. According to the results of the correlation between the dependent variable and the two independent variables in this study, both independent variables, online and face to face classes have positive correlations with the students' satisfaction. This shows that the students are satisfied with both online and face to face learning mediums. We met the objective of this study, by concluding that the results show a positive relationship between all categories tested (online

and face-to- face learning mediums) with the student satisfaction, ranging from r = 0.518 to r = 0.594. Hence both independent variables have a strong correlation with students' satisfaction, as indicated by a 'r' value 0.5.

It is significant to mention that online learning mediums (r = 0.594) have higher positive correlation than face-to-face learning mediums (r = 0.518). This shows that overall, students' satisfaction for online learning is greater than face to face learning mediums which shown to be the same as the findings found by Racca and Robinson (2016). However, this result is shown to be different from the findings found by Faidley (2018), Basuony et al. (2020) and Chen et al. (2013) that indicate students are more satisfied with face to face classes compared to online classes. Following that, this study found a significant relationship between face-to-face and online classes, as well as their impact on student satisfaction among year 2 and year 3 BAAF students at KPTM Bangi. The findings revealed that both independent variables had a high impact, with a r square value of 0.546 (54.6%). It is possible to conclude that student satisfaction has a significant impact on both online and face-to-face learning mediums.

Limitations of the Study
Due to the inherent limitations of the study, it is possible that the results of this study do not accurately reflect the circumstance in its entirety. This is because the study itself has some limitations. There are students at KPTM Bangi who are enrolled in diploma programs. However, these students are unable to be included in the sample for this research because the nature of their program does not comply with the standard for this research. As a direct consequence of this, the study only received 189 responses from BAAF students who were enrolled in years 2 and 3 at KPTM Bangi. Because of this, it is possible that it would be inappropriate to generalize these findings to the population of the entire KPTM Bangi.

Aside from that, the scope of our research was limited to a particular location, which meant that the conclusions we were able to draw were only applicable to a specific facet of that location. Because the study was conducted at an urban higher education institution (KPTM Bangi), it is essential to exercise extreme caution when extrapolating the findings to other students who are located in different environments. It is highly likely that the results do not accurately reflect accounting students attending other higher education institutions because the sample was obtained from a single higher education institution.

Recommendation Future Research
The directions for future research should include the expansion of individual studies examining the effects of online and face to face learning medium on participant learning and satisfaction in urban or rural areas. Our research was conducted at KPTM Bangi targeting Year 2 and Year 3 BAAF students, it is possible that our research would be different if conducted at other KPTM campuses especially in rural areas as students living in a city are more comfortable in learning through online rather than students living in rural areas. There are factors such as internet connections, lack of gadgets and internet literacy that make students in rural areas prefer face-to-face learning medium. It would be quite interesting for us to learn the results of replication experiments conducted at other educational institutions in both urban and rural areas.

Due to the limited number of participants in this study, it is recommended that further research be conducted in order to validate and generalise the findings among a wide range of students. It is possible that empirical support of the validity of these instruments can be

obtained by using the measurement scales in subsequent studies that are conducted in different contexts. Find out the level of satisfaction that students have with both online and face-to-face learning by talking to both diploma and degree students. This can be done in order to better plan for the future.

Overall Conclusion

Taking everything into account, this research is successful and reaches the objective of finding the impact of online learning and face-to-face learning on satisfaction among accounting students in KPTM Bangi. This study shows that there is a significant relationship between the dependent variable (students' satisfaction) and the two independent variables (online classes and face to face classes). As a whole, this study concludes that online learning mediums have a greater impact on student satisfaction than face-to-face learning in many ways. However, if seen in a specific way, the result could be different according to the particular students, which is possible because they have their own ways of studying or preferred environments for studying.

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