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Analysis of the Online Course Delivery Method: Students' Perspective

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ABSTRACT

Purpose: The COVID19 pandemic has affected the social and economic scene around the world which inevitably include the education sector. The increasing need for online classes and the observed differences on student perceptions were the researchers' main motivation to conduct the study. This research intends to analyze the online course delivery method for the accounting program based on Omani students' perspective wherein online learning is just newly becoming popular. **Methodology:** This study analyzed the aspects of online course delivery method as applied to the accounting program of the University of Technology and Applied Sciences-Nizwa through a quantitative descriptive research. Specifically, the study evaluated the students' perception and satisfaction with online learning and their differences across study levels and genders. Challenges and benefits from online learning were also assessed. Statistical treatments employed to test the significant differences were the T-test, ANOVA, and Post Hoc Tukey Test. **Findings:** Findings of the study concluded a favorable perception and satisfaction with online course delivery among Omani students and that there is a significant difference on their perceptions across study levels and gender particularly in communication and interaction with teachers and classmates as well as understanding of the materials, but no significant difference with regards to students' overall satisfaction with the online course delivery method. Post Hoc Tukey test confirmed significant difference on the responses of diploma and bachelor students but no significant differences between diploma and advanced diploma students. **Implications:** When opposed to traditional learning, online learning takes place in a completely different environment. It's crucial to think about how students feel about this relatively new type of course delivery, because their feelings about it can influence their satisfaction with it, which can affect their class performance. **Originality:** While there have been various research on online learning, only a few have been conducted in Oman during the COVID19 pandemic, with a focus on Omani accounting students' perceptions.

Keywords*: online course delivery, online learning, challenges and benefits, COVID19*

INTRODUCTION:

COVID19 has changed the landscape of how people perform their day to day functions. Organizations all over the world, be it profit or non-profit, necessitated to have a paradigm shift in order to cope with the challenges the pandemic has brought. Businesses were forced to adjust their business models or embrace a change of mindset to find ways on how to survive in this uncertainty. Governments needed to revisit their projects and realign their budgets to prioritize their country's healthcare system. The general public had to go through their days thinking of how to survive the pandemic's impact on their general well-being and way of life.

The educational system was not spared from all the chaos. Since current evidence suggests that the virus spreads mainly between people who are in close contact with each other (WHO, 2020), the traditional way of face to face teaching has to be stopped to curtail the worsening situation. Leaders had to think of how to effectively deliver education to their students who can't step out of their doorsteps due to the dangers the COVID19 has brought upon the world.

In the Gulf Cooperation Council (GCC), the rate of infections continues to increase with total confirmed cases of over 2 million as of June 2021 (GCC-STAT, 2021). The Sultanate of Oman has suffered the same fate as its neighboring countries in the gulf region. COVID19 arrived in Oman in February of 2020 (MOH Oman, 2020) and since then, it affected all sectors of the country. On March 2020, educational institutions including technical and vocational colleges suspended all classes for a month to prevent the further spread of the virus happening all around (Oman Observer, 2020). Due to this interruption and adverse impact on education, it was deemed very important to cope up with the problem and adopt with the changes it brings. One of the strategies introduced by universities and colleges is the online delivery of courses in lieu of the traditional method of face to face delivery. The online delivery method has been widely used for general and higher education programs. However, e-learning or distance education has grown in Oman only in the mid-1990s both in the quality of the programs and popularity among students (Kutty, 2017). This method is still considered relatively new in Oman where the primary method of course delivery is the face to face instruction. Thus, as COVID19 continues to disrupt the traditional method of teaching, there is a need to adapt to the 'new normal' of doing things including, and most especially, in the higher education where learning is more intensive as students are trained to become professionals.

Online learning is based on an entirely different setting compared to traditional learning. It is important to consider how students perceive this relatively new method of course delivery since student perception may translate to their satisfaction of this method which may further affect their class performance. Many researchers believe that perception relates to satisfaction. Thus, positive perception can increase satisfaction and negative perception may lead to dissatisfaction. In this study, the researchers would like to analyze how the university students in Oman, particularly in the University of Technology and Applied Sciences (UTAS) - Nizwa, perceive the online course delivery method in the accounting program and their satisfaction with this method. Results of this study can add to the information that the education leaders need to make informed decisions with regards to online learning. If institutionalized, it can also contribute greatly in improving the delivery of lessons, increase student engagement and overall class performance of the accounting students.

OBJECTIVES OF THE STUDY:

This study intends to analyze the online course delivery method for the accounting program based on the students' perspective. Specifically, this study aims to evaluate:

1. The perception of accounting students towards online course delivery method, particularly on engagement with the lecturers, interaction with peers and the appreciation of the materials and learning tools used in online classes;
2. The benefits and challenges of the online course delivery method from the accounting students' perspective;
3. The satisfaction of the accounting students with the online course delivery method;
4. The difference of the students' perceptions and satisfaction with online course delivery method as to gender and study levels.

LITERATURE REVIEW:

The Online Course Delivery Method and Its Effectiveness:

There are three general methods of instructions used by educational institutions – on- ground, online, and hybrid methods. According to Peslak et.al (2018), on-ground learning is the traditional method or face to face instruction wherein 100 percent of the course content is delivered in the on-ground classroom while hybrid learning (also called blended learning) is the method which involves a course that is partially delivered online and partially delivered in the on-ground classroom. Online learning is the method wherein 100 percent of the course content is delivered online.

In the Sultanate of Oman, online learning (also known as e-learning) has been an accepted course delivery method even before the corona virus pandemic. However, the educational institution must first be among

the list of recommended e-learning centers by the Ministry of Higher Education and does not include courses which are practical in nature, for example, the medical and engineering programs (Kutty, 2017). In March 2020, as a response to the COVID19 pandemic, colleges and universities in Oman were allowed to adopt online classes in all their academic programs (Osman, 2020) through the so-called remote learning where classes meet in real-time according to class schedules consisting of lectures, discussions and structured activities (UTAS RHS Committee, 2021).

Many researchers have studied the effectiveness of online learning. For example, Darius et al. (2021) found that animations, video lectures delivered by lecturers, online quiz having multiple choice questions, and a conducive environment at home, among others, promote effective online learning. Nguyen (2015) discovered that there are many evidences proving that online learning is generally as effective as the traditional method. Schwartz (2012) suggested four metrics which includes learning self-assessment and teaching evaluation as opportunities for making online accounting classes as effective as the traditional classroom environment, while Bahasoan et al. (2021) concluded that the online learning system carried out during the COVID-19 pandemic is effective yet inefficient.

Students' Perceptions and Satisfaction with Online Learning:

Ramoun and Anis (2018) confirmed the relationship between satisfaction and perception in their study about customer satisfaction and perception of service quality. Similar results were discovered in the study of Xu (2007) who suggested that "customer perceived service quality has a significant effect upon customer satisfaction". In the same manner, students' perceptions of online learning may also reflect on the level of their satisfaction. Many researchers have studied the students' perception of online learning. Peslak et al. (2018) who studied the attitudes of students toward the different course delivery methods found that respondents still preferred the traditional course delivery method as the most effective among the three methods. Online course delivery was perceived as moderately effective but with significant demographic differences on gender and age. Females and older students expressed that online course delivery is more effective than the other two methods. Tichavsky et al. (2015) examined the students' perceptions of online versus face to face learning and found that interaction, specifically interaction with professors, was important for students and was the main motivation of choosing face-to-face over online learning. With regards to students' satisfaction with the online course delivery method, Wei and Chou (2020) found that students' computer/internet self-efficacy for online learning readiness had an effect on online learning perceptions and course satisfaction while Lee (2010) discovered that "perception of online support service quality was a significant predictor of online learning acceptance and satisfaction for both Korean and American students". Furthermore, Beqiri and Chase (2010) who analyzed the factors affecting business students' satisfaction of online learning found that "graduate, married, residing off-campus, and male" is the socio-demographic profile that would be more satisfied with online course delivery, while in terms of the education-related predictors, the student who "perceives online instruction to be an appropriate way of learning in universities and who has some background regarding the course he or she decides to take" is the type of student who would likely be more satisfied with the online delivery of courses. Lazim et al. (2021) in their study on the application of Technology Acceptance Model towards online learning found that students' acceptance behavior towards online learning is influenced by their attitude towards perceived ease of use and perceived usefulness. Kauffman (2015) concluded that in terms of satisfaction, students were satisfied with online courses that are "structured, interactive, application-based with practical significance, and instructor-facilitated in terms of interactions/feedback" while Ghaderizefreh and Hoover (2018) found in their study on student satisfaction with online learning that "higher levels of understand ability, illustration, enthusiasm, and fostering attention led to increased student satisfaction and higher levels of enjoyment and lower levels of anger and boredom also increased students' satisfaction with the online learning experience". Moreover, benefits and challenges of online learning obtained from the study of Gilbert (2015) include "flexibility of completing work in a time and place that was best suited for the students' learning" as major benefit from online learning and "lack of reliable internet at home" as a major challenge. The study of Muthuprasad et al. (2021) conveyed similar findings as Gilbert (2015). Agarwal and Kaushik (2020) concluded that online learning improved the morale of pediatric post graduate students by creating a diversion from the ongoing pandemic situation. They concluded that online teaching is feasible, cheap and must be made a part of the students' training beyond the prevailing lockdown. While Hermida (2020) found in her study on the students' use and acceptance of online learning during COVID19

that the lack of supporting resources (access to the learning center, library, interaction with professors, etc.) was an important challenge during the transition to online learning.

RESEARCH METHODS:

Research Design and Data Gathering:

This study used the quantitative descriptive research which involves the collection and analysis of data pertaining to the perception and satisfaction of UTAS-Nizwa students in online learning as well as the benefits and challenges attached to this course delivery method. The researchers gathered information from the respondents through a survey questionnaire distributed using Google forms. Targeted participants of the study were the students under the accounting program of the University of Technology and Applied Sciences (UTAS) – Nizwa from different study levels, which are diploma, advanced diploma and bachelor levels, of the summer semester AY 2020-2021. The sample size was determined using Krejcie and Morgan's approach. The questionnaire was distributed to 209 students under the accounting program to which 118 students or 56% of the total have responded. Stratified Random Sampling method was employed.

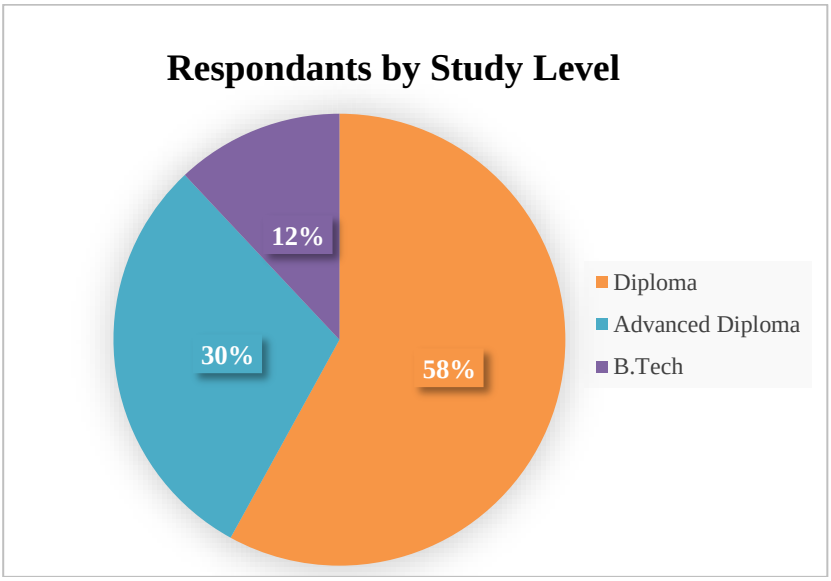
The questionnaire used for the study was composed of four parts pertaining to online learning. These parts include (1) students' demographic profile, (2) students' perception of online learning, (3) benefits and challenges from online learning, and (4) satisfaction with online learning. A Likert scale of 1 to 5 was used to measure the responses of the students to questions pertaining to perception and satisfaction where 1 means strongly disagree/poor, 2 means disagree/below average, 3 means moderately agree/average, 4 means agree/good, and 5 means strongly agree/excellent. Benefits and challenges were asked to be ranked by the respondents from the greatest to the least benefit/challenge. Questions used were all closed-ended questions.

Data Analysis and Ethical Considerations:

The survey was utilized as the researchers' primary basis of their analysis of the appropriateness of the online course delivery method to the accounting program of UTAS-Nizwa. In determining the significant differences on the responses, gender and study levels were identified as independent variables, while perceptions and satisfaction with online learning were taken as the dependent variables. Statistical treatments used to analyze the data were the T-test, ANOVA and Post Hoc Tukey analysis. Microsoft Excel and the Statistical Package for the Social Sciences (SPSS) were the tools used for the study. The researchers ensure that ethical considerations were observed in the conduct of the study. Information obtained were treated with utmost confidentiality and used solely for research purposes.

FINDINGS AND DISCUSSIONS:

Figure 1: Respondents by Gender and by Study Level



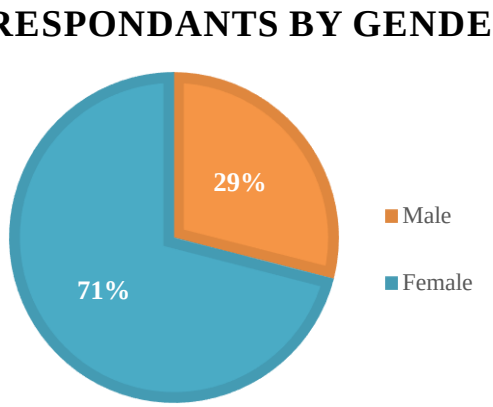
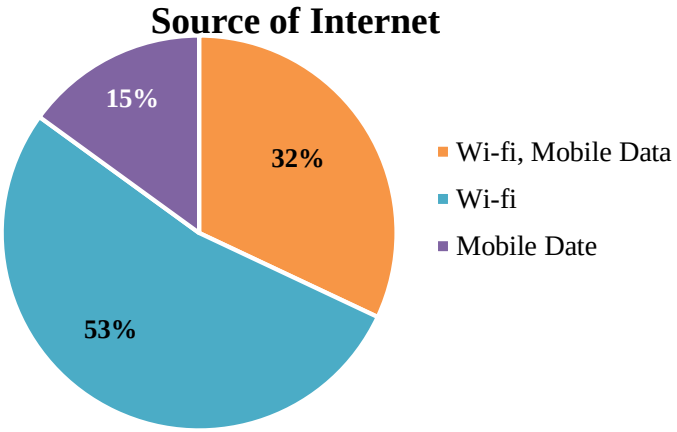


Figure 1 shows the breakdown of respondents by gender and study level. Majority of the respondents are females comprising of 71% or 84 out of 118 total participating accounting students. Male respondents comprised 29% or 34 students. Based on study level, majority of the respondents were diploma students which comprised of 58% or 68 students, while advanced diploma and bachelor students comprised of 30% (36 students) and 12% (14 students), respectively.



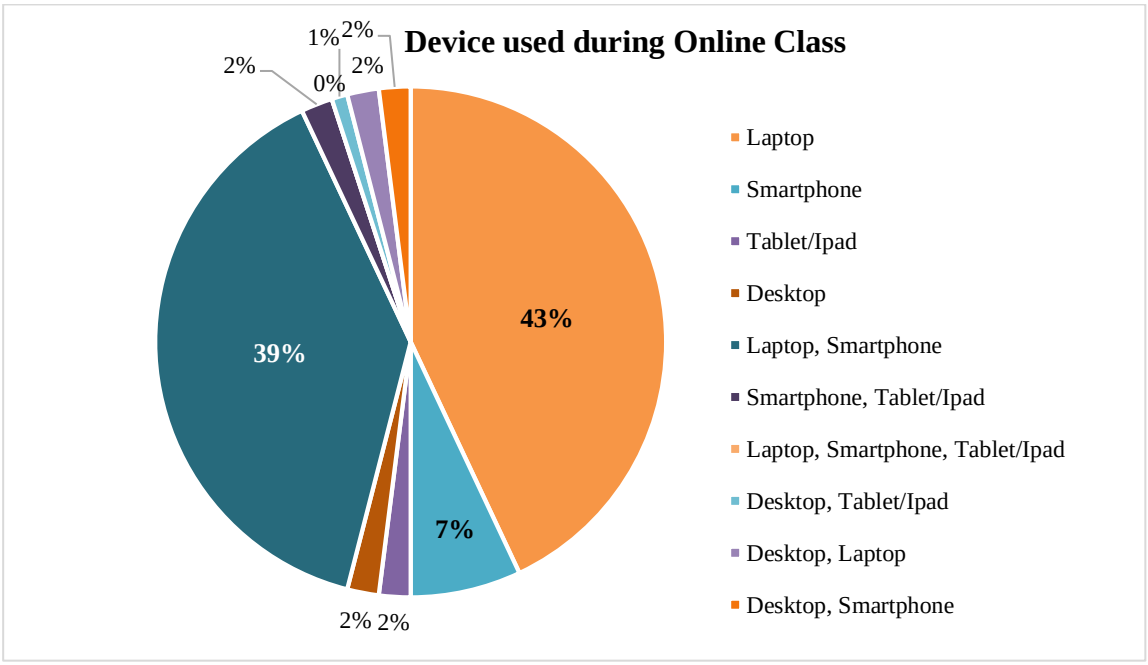


Figure 2: Students' Device and Source of Internet during Online Classes

Figure 2 shows that 43% of the students used laptop as their primary device for online classes while 39% used both laptop and smartphone. On the other hand, majority or 53% uses Wi-Fi as their primary source of internet connection.

Table 1: Students' Perceptions of Online Learning

Questions	Mean
1. Online Learning makes it easier for me to communicate with my teachers.	3.19
2. I am more comfortable to respond to my teacher's questions online than orally.	3.41
3. My teacher understands the online environment and makes it easy for me to learn.	3.39
4. I interact more often with my teachers in online learning than in face to face learning.	3.16
5. My teachers are quick to respond and give feedback on my questions during online learning.	3.64
6. I interact more easily with my classmates during online classes.	3.08
7. It is easier to complete group projects/assignments with my classmates in online learning.	2.92
8. I have more chance to discuss the lesson with my classmates during online classes.	3.16
9. Online classes help me understand the course materials better compared to face to face learning.	3.06
10. My technical skills in using the Moodle, Email and University Website have increased since attending online classes.	3.75
11. I understand the PowerPoint materials prepared by my teacher better in online classes.	3.62
12. Activities in the Moodle make the learning process more effective.	3.57
13. I learn better when my teacher use the digital board and pen when teaching problem solving questions.	3.92
14. Questions asked in online learning are not too difficult.	2.82

Table 1 shows the mean scores of the respondents' perceptions of online learning for each question. It can be observed that scores are drawn to the middle (3 to 3.99) which means that they are moderately agreeing that online course delivery method enhanced their engagement with the lecturers, their interaction with peers and their appreciation of the materials and learning tools used in class. However, closer look at the mean scores for questions 10 to 13 (i.e. >3.5) may give an insight that the respondents are leaning towards full agreement that their appreciation of materials and learning tools increased due to online course delivery. This concurs with the findings of Darius et al. (2021) which says that animations, video lectures delivered by lecturers, online quiz, among others, promote effective online learning. On the other hand, increase of interaction with teachers and peers due to online course delivery, questions 1 to 8, are leaning towards full disagreement (i.e. <3.5) which corresponds to the findings of Tichavsky et al. (2015) who found that interaction, specifically interaction with professors, was important for students and was the main motivation of choosing face-to-face over online learning. Moreover, the respondents definitely disagree that it is easier to complete group projects with their classmates in online learning setting (question 7=2.92). This could be related with the findings of Hermida (2020) that the lack of supporting resources (access to the learning center, library, interaction with professors, etc.) was an important challenge during the transition to online learning. They also disagree that questions asked in online learning are not too difficult (question 14=2.82). Overall, accounting students at UTAS-Nizwa have a favorable opinion of the university, but there is still potential for development, particularly in terms of refining plans to enhance engagement with lecturers and peers.

Table 2: Benefits from Online Learning

Benefits	Rank
Flexible schedule and convenience	1
More comfortable environment	2
Improvement of technical skills	3
More interaction and greater ability to concentrate	4
Self-discipline and responsibility	5
Cost is less compared to face to face learning	6

Table 2 presents the ranking of benefits from online learning. Respondents feel that the greatest benefit brought by online learning is flexibility of schedule and convenience which agrees with the findings of Gilbert (2015) and Muthuprasad (2021), followed by a more comfortable environment; while the least benefit perceived by the respondents is 'lesser cost compared to face to face learning'.

Table 3: Challenges from Online Learning

Challenges	Rank
Lack of connectivity in my place	1
No face to face interaction with teachers and classmates	2
Data Limit	3
Requirement for self-discipline to focus on lectures	4
Lack of device for online learning	5
Poor learning environment	6
Lack of technological skills	7
Cost is more compared to face to face learning	8

It can be gleaned from Table 3 that the greatest challenge perceived by respondents from online learning is the lack of internet connectivity in their place, which also agrees with the findings of Gilbert (2015) and Muthuprasad (2021), followed by the lack of face to face interaction with teachers and classmates which is also supported by the findings of Hermida (2020), while the least challenge according to the respondents is also the cost.

Figure 3: Students' Satisfaction with Online Course Delivery Method

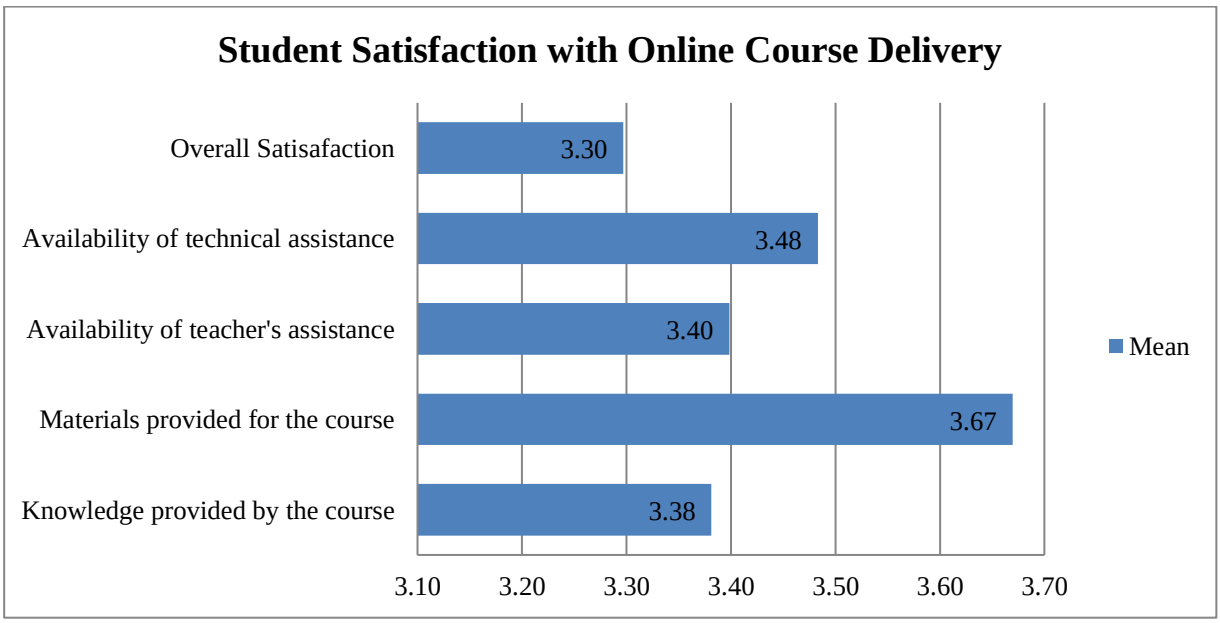


Figure 3 illustrates the overall level of satisfaction of the respondents towards online course delivery method and their satisfaction in terms of availability of technical assistance, teachers' assistance, materials and knowledge (information) provided. Respondents feel highest satisfaction with the materials provided for the delivery of the course (3.67). This result agrees with the results of Table 1 where students give higher rating on their appreciation of materials and learning tools used in online classes (>3.5). This result could also be related to the findings of Kauffman (2015) who suggested that instructional and course design are factors involved in satisfaction and Ghaderizefreh and Hoover (2018) who concluded that higher levels of understand ability, illustration led to increased student satisfaction. Overall, students were satisfied with the online course delivery method with an average rating of 3.30. Lee (2010) also found in his study that perception of online support service quality was a significant predictor of online learning acceptance and satisfaction, thus it could also be construed from this study that the mean scores achieved from availability of technical assistance and teachers' assistance could have influenced the overall satisfaction rating of the students.

Table 4: Difference of Students' Perceptions of Online Learning across Study Levels

Questions	Diploma		Advanced Diploma		B. Tech		ANOVA		
	Mean	SD	Mean	SD	Mean	SD	f-stat	p-value	Result
1. Online Learning makes it easier for me…	3.294	0.865	3.222	0.929	2.643	1.216	2.86639	0.060979	Not Significant at $p < 0.05$
2. I am more comfortable to respond…	3.529	1.043	3.528	1.082	2.500	1.345	5.46539	0.005402	Significant at $p < 0.05$
3. My teacher understands the online environment…	3.382	0.947	3.556	0.939	3.000	1.177	1.64671	0 .197194	Not Significant at $p < 0.05$
4. I interact more often with my teachers…	3.191	1.096	3.444	0.998	2.286	1.139	5.94732	0.003484	Significant at $p < 0.05$
5. My teachers are quick to respond…	3.618	0.978	3.889	0.950	3.143	1.231	2.85294	0.061765	Not Significant at $p < 0.05$
6. I interact more easily with my classmates…	3.206	1.030	3.250	0.937	2.071	0.917	8.33795	0.000415	Significant at $p < 0.05$
7. It is easier to complete group projects…	3.103	1.108	2.917	1.131	2.000	0.961	5.84107	0.003837	Significant at $p < 0.05$
8. I have more chance to discuss the lessons…	3.265	0.956	3.250	0.996	2.429	1.158	4.32303	0.01548	Significant at $p < 0.05$
9. Online classes help me understand the course…	3.324	1.099	2.806	1.167	2.429	1.089	5.04696	0.007926	Significant at $p < 0.05$
10. My technical skills in using the Moodle…	3.794	0.939	3.694	0.951	3.714	1.139	0.1385	0.870811	Not Significant at $p < 0.05$
11. I understand the PowerPoint materials…	3.765	0.932	3.611	0.728	2.929	1.328	4.68189	0.011098	Significant at $p < 0.05$

Questions	Diploma		Advanced Diploma		B. Tech		ANOVA		
	Mean	SD	Mean	SD	Mean	SD	f-stat	p-value	Result
12. Activities in the Moodle make the learning	3.662	0.971	3.444	0.695	3.429	1.158	0.83686	0.435688	Not Significant at $p < 0.05$
13. I learn better when my teacher use the digital…	3.853	0.981	3.944	0.955	4.143	1.292	0.49646	0.609983	Not Significant at $p < 0.05$
14. Questions asked in online learning…	2.926	1.055	2.861	1.175	2.214	0.699	2.65393	0.074683	Not Significant at $p < 0.05$

Table 4 shows the statistical difference of student perceptions of online learning across study levels. A one-way ANOVA test was employed to determine the significant differences on students' perceptions among the study levels. The test revealed that there was a statistically significant difference of perceptions across study levels when it comes to interaction with peers (questions 6 to 8), (F=8.33795, p=0.000415), (F=5.84107, p=0.003837), (F=4.32303, p=0.01548). In terms of engagement with teachers (questions 1 to 5), students' responses differ significantly with regards to comfortability in responding to teachers' questions (question 2) (F=5.46539, p=0.005402) and interacting with them (question 4) (F=5.94732, p=0.003484) while responses to understand ability of materials (question 11) (F=4.68189, p=0.011098) were also statistically significantly different across the study levels. These results confirm that student perceptions with regards to engagement with peers are significantly different per study level since all questions give significant results, but do not give the same affirmation with regards to interaction with teachers and appreciation of materials and learning tools as not all questions give significant results. While it can be inferred from the study that students under the different study levels belong to different age groups, results of this study to a certain extent supports that of Peslak et al. (2018) who found a significant demographic differences on gender and age on the attitude/perception of students towards the different course delivery methods. On the other hand, there was no significant difference found on other parameters given in Table 5 (questions 1,3,5,10,12 to 14).

Table 5: Difference of Students' Satisfaction with Online Learning across Study Levels

Questions	Diploma		Adv. Diploma		B. Tech		ANOVA		
	Mean	SD	Mean	SD	Mean	SD	f-stat	p-value	Result
1. Knowledge provided by the course	3.353	0.748	3.528	0.774	3.143	0.770	1.40942	0.248472	Not Significant at $p < 0.05$
2. Materials provided for the course	3.662	0.891	3.917	0.770	3.071	0.730	5.12531	0.007375	**Significant at $p < 0.05$**
3. Availability of teacher's assistance	3.279	0.975	3.694	0.856	3.214	1.051	2.54676	0.082747	Not Significant at $p < 0.05$

Questions	Diploma		Adv. Diploma		B. Tech		ANOVA		
	Mean	SD	Mean	SD	Mean	SD	f-stat	p-value	Result
4. Availability of technical assistance	3.485	0.970	3.583	0.906	3.214	0.893	0.77367	0.463703	Not Significant at $p < 0.05$
Overall Satisfaction	3.279	0.750	3.417	0.996	3.071	0.917	0.86136	0.425294	Not Significant at $p < 0.05$

A one-way ANOVA test was also employed to determine the significant differences on students' satisfaction with online learning across the study levels. It can be seen from Table 6 that there is no significant difference in the overall satisfaction of students across the study levels. Among all the parameters given in the table (questions 1 to 4), only that with regards to materials provided for the course (question 2) has significant difference ($F=5.12531$, $p=0.007375$). This can be further related with the results presented on Table 5 where the students' perceptions of understanding of the materials (question 11) were also significantly different.

Table 6: Post Hoc Tukey Test

Questions	Pairwise Comparisons		$HSD_{.05}$ = 0.6088 $HSD_{.01}$ = 0.7621	$Q_{.05}$ = 3.3580 $Q_{.01}$ = 4.2035
PQ2. I am more comfortable to respond to my teacher's questions online than orally.	T_1:T_3	M_1 = 3.53 M_3 = 2.50	1.03	Q = 4.83 (p = .00250)
	T_2:T_3	M_2 = 3.53 M_3 = 2.50	1.03	Q = 4.83 (p = .00255)
PQ4. I interact more often with my teachers in online learning than in face to face learning.	T_1:T_3	M_1 = 3.19 M_3 = 2.29	0.91	Q = 4.33 (p = .00761)
	T_2:T_3	M_2 = 3.44 M_3 = 2.29 M_3 = 3.14	1.16	Q = 5.54 (p = .00044)
PQ6. I interact more easily with my classmates during online classes.	T_1:T_3	M_1 = 3.21 M_3 = 2.07	1.13	Q = 5.88 (p = .00018)
	T_2:T_3	M_2 = 3.25 M_3 = 2.07	1.18	Q = 6.11 (p = .00010)
PQ7. It is easier to complete group projects/assignments with my classmates in online learning.	T_1:T_3	M_1 = 3.10 M_3 = 2.00	1.1	Q = 5.15 (p = .00119)
	T_2:T_3	M_2 = 2.92	0.92	Q = 4.28

Questions	Pairwise Comparisons		$HSD_{.05}$ = 0.6088 $HSD_{.01}$ = 0.7621	$Q_{.05}$ = 3.3580 $Q_{.01}$ = 4.2035 (p = .00855)
		M_3 = 2.00		
PQ8. I have more chance to discuss the lesson with my classmates during online classes.	**T_1:T_3**	M_1 = 3.26	0.84	Q = 4.32 (p = .00782)
		M_3 = 2.43		
	T_2:T_3	M_2 = 3.25	0.82	Q = 4.24 (p = .00918)
		M_3 = 2.43		
PQ9. Online classes help me understand the course materials better compared to face to face learning.	**T_1:T_3**	M_1 = 3.32	0.89	Q = 4.10 (p = .01225)
		M_3 = 2.43		
PQ11. I understand the PowerPoint materials prepared by my teacher better in online classes.	**T_1:T_3**	M_1 = 3.76	0.84	Q = 4.61 (p = .00418)
		M_3 = 2.93		
	T_2:T_3	M_2 = 3.61	0.68	Q = 3.76 (p = .02409)
		M_3 = 2.93		
		M_3 = 2.21		
SQ2. Materials provided for the course	**T_1:T_3**	M_1 = 3.66	0.59	Q = 3.61 (p = .03180)
		M_3 = 3.07		
	T_2:T_3	M_2 = 3.92	0.85	Q = 5.17 (p = .00112)
		M_3 = 3.07		

Table 6 summarizes the significant pairwise comparisons on student perceptions and satisfaction across study levels using the Post Hoc Tukey test. While Tables 5 and 6 confirmed the significant differences across levels and genders, Table 7 presents which pairs of means there is a significant difference. Tukey's HSD Test for multiple comparisons found that the mean value of students' perceptions was significantly different between diploma (T_1) and bachelor (T_3) in terms of comfortability in responding to teachers' questions (PQ2) (p=0.00250), interaction with teachers (PQ4) (p=0.00761), interaction with classmates (PQ6) (p=0.00018), completion of group projects (PQ7) (p=0.00119), discussion of lessons with classmates (PQ8) (p=0.00782), understanding of the PowerPoint materials (PQ11) (p=0.00418) and satisfaction with the materials provided for the course (SQ2) (p=0.03180). The mean value of students' perceptions was also significantly different between advanced diploma (T_2) and bachelor (T_3) in terms of comfortability in responding to teachers' questions (PQ2) (p=.00255), interaction with teachers (PQ4) (p=0.00044), interaction with classmates (PQ6) (p=0.00010), completion of group projects (PQ7) (p=0.00855), discussion of lessons with classmates (PQ8) (p=0.00918), understanding of the PowerPoint materials (PQ11) (p=0.02409) and satisfaction with the materials provided for the course (SQ2) (p=0.00112). In terms of overall understanding of course materials (PQ9), there is significant difference between diploma (T_1) and bachelor (T_3) students only (p=0.01225). Based on the results of this test, there is no significant difference between the responses of diploma (T_1) and advanced diploma (T_2) students in the parameters mentioned in Table 7.

Table 7: Difference of Students' Perceptions of Online Learning between Genders

Questions	Female		Male		T-test		
	Mean	SD	Mean	SD	t-value	p-value	Result
1. Online Learning makes it easier for me to communicate…	3.071	0.979	3.500	0.788	-2.27005	0.012526	**Significant at p < 0.05**
2. I am more comfortable to respond to my teacher's questions online…	3.310	1.182	3.647	0.981	-1.47154	0.071927	Not Significant at p < 0.05
3. My teacher understands the online environment and makes it easy…	3.298	1.003	3.618	0.888	-1.61984	0.053991	Not Significant at p < 0.05
4. I interact more often with my teachers in online learning…	3.024	1.130	3.500	1.022	-2.12904	0.017683	**Significant at p < 0.05**
5. My teachers are quick to respond and give feedback…	3.560	1.045	3.853	0.925	-1.42541	0.078362	Not Significant at p < 0.05
6. I interact more easily with my classmates during online classes…	2.964	1.113	3.382	0.817	-1.98195	0.024925	**Significant at p < 0.05**
7. It is easier to complete group projects/assignments…	2.750	1.181	3.324	0.945	-2.52204	0.006512	**Significant at p < 0.05**
8. I have more chance to discuss the lesson with my classmates…	3.143	1.099	3.206	0.808	-0.30254	0.381392	Not Significant at p < 0.05
9. Online classes help me understand the course materials better…	2.905	1.147	3.441	1.106	-2.32366	0.010943	**Significant at p < 0.05**
10. My technical skills in using the Moodle, Email and University…	3.726	0.986	3.824	0.904	-0.49712	0.310023	Not Significant at p < 0.05
11. I understand the PowerPoint materials prepared by my teacher…	3.607	1.030	3.647	0.774	-0.20371	0.41947	Not Significant at p < 0.05
12. Activities in the Moodle make the learning process more effective...	3.571	0.960	3.559	0.824	0.06714	0.473292	Not Significant at p < 0.05
13. I learn better when my teacher use the digital board and pen…	3.940	1.045	3.853	0.925	0.42524	0.335724	Not Significant at p < 0.05
14. Questions asked in online learning are not too difficult…	2.750	1.096	3.000	1.015	-1.14541	0.127199	Not Significant at p < 0.05

Table 7 presents the statistical difference in the perception of students in online learning per gender. A two sample t-test was performed to analyze if there is significant difference in the students' perceptions of online learning between male and female students. It can be construed from the table that there was a statistically significant difference in perceptions when it comes to communication with teachers (question 1) between females (M=3.071, SD=0.979) and males (M=3.500, SD=0.788); t=-2.27005, p= 0.012526; interaction with teachers (question 4) between females (M=3.024, SD=1.130) and males (M=3.500, SD=1.022); t=-2.12904, p=0.017683; interaction with classmates (question 6) between females (M=2.964, SD=1.113) and males (M=3.382, SD=0.817); t=-1.98195, p=0.024925; completion of group projects (question 7) between females (M=2.750, SD=1.181) and males (M=3.324, SD=0.945); t=-2.52204, p=0.006512; understanding of course materials (question 9) between females (M=2.905, SD=1.147) and males (M=3.441, SD=1.106); t=-2.32366, p=0.010943. This finding to a certain degree supports the conclusions of Peslak et al. (2018) in their study who found difference in perceptions of online course delivery between female and male students. Other parameters in Table 8 do not differ significantly.

Table 8: Difference of Students' Satisfaction with Online Learning between Genders

Questions	Female		Male		T-test		
	Mean	SD	Mean	SD	t-value	p-value	Result
1. Knowledge (information) provided by the course	3.333	0.781	3.500	0.707	-1.07755	0.141734	Not Significant at p < 0.05
2. Materials provided for the course	3.655	0.898	3.706	0.799	-0.28867	0.386674	Not Significant at p < 0.05
3. Availability of teacher's assistance	3.393	0.994	3.412	0.892	-0.00544	0.497835	Not Significant at p < 0.05
4. Availability of technical assistance	3.405	0.907	3.676	1.007	-1.42776	0.078024	Not Significant at p < 0.05
Overall Satisfaction	3.214	0.865	3.500	0.788	-1.66531	0.049274	Not Significant at p < 0.05

Table 8 shows the statistical differences in gender satisfaction among students. A two sample t-test was also performed to analyze if there is significant difference in the students' satisfaction with online learning between male and female students. It can be seen from the table that there is statistically no significant difference in the overall satisfaction level of students as well as for each parameter between male and female students. This supports the findings of Mohamad et al. (2020) in their study on gender difference on students' satisfaction with online learning.

CONCLUSIONS:

Based on the objectives of the study, the following conclusions are given:

1. Overall, there is positive perception of online learning among the accounting students of UTAS-Nizwa. The respondents' perception rating is within average which means that they moderately agree with the online course delivery method. While students perception rating skew at the lower end of the middle score range in terms of enhanced interaction with lecturers and peers, their appreciation of the materials and learning tools used during online classes are leaning towards full agreement.

2. The greatest benefit experienced by the students from online course delivery method as perceived by the respondents is the flexibility in schedule and convenience, while the greatest challenge they perceived is the lack of connectivity in their respective places. Surprisingly, cost of learning online was perceived as the least concern among students as a benefit and a challenge.
3. Overall, the respondents were satisfied with the online course delivery method with highest satisfaction rating given on the materials provided for the course.
4. The study found statistically significant difference in the respondents' perception of online course delivery method across study levels and genders particularly in communication and interaction with lecturers and peers and understanding of the course materials. On the other hand, the study found statistically no significant difference in the respondents' overall satisfaction with online course delivery method across study levels and genders. However, there was statistically significant difference in satisfaction when it comes to materials provided for the course across study levels.

RECOMMENDATIONS:

Based on the conclusions, the following recommendations are given:

1. Student impressions of online course delivery could still be improved by further refining ideas on how to promote students' contact with lecturers and peers during online classes, as favorable perceptions can lead to increased satisfaction, which can lead to improved class performance.
2. In the post-pandemic era, education leaders may explore a deliberate use of a well-structured blended learning method (i.e. a combination of online and on-ground classrooms) in the delivery of university courses. This may benefit not just the institutions by lowering the cost of delivering education, but it may also help students by providing them with more flexibility and convenience, as well as instilling in them the importance of autonomous learning and, as a result, improving their self-efficacy. Recording of online classes and availability of lecturers may ease the students' concern on internet connectivity.
3. Satisfaction rating with regards to availability of technical and teachers' assistance in online learning can still be enhanced in order to further increase the overall satisfaction of students with online course delivery. This can also be done through reinforcing positive perception of students on these satisfaction parameters.
4. Since each study level significantly perceive online learning differently in terms of communication with lecturers and peers and understanding of materials, as well as their satisfaction with the materials provided for the course, lecturers and academic leaders may look closely into the customization of course design and instructional materials used for each level especially between diploma/advanced diploma and bachelor levels, to further enhance the students' satisfaction with online learning which, in turn, may lead to an improved class performance.

AUTHOR CONTRIBUTIONS:

The following authors confirm their contributions to the paper: Lenin and Maria conceptualized and designed the study; Maria prepared the questionnaire; Lenin reviewed the questionnaire; final draft of the questionnaire was agreed by the both the authors; Lenin and Maria collected the data; Lenin analyzed the data; and Maria interpreted the results. Maria prepared the draft manuscript. Lenin reviews the draft manuscript. Finally, both authors reviewed the findings and agreed on the final version of the manuscript.

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CONFLICT OF INTEREST:

There are no potential conflicts of interest for the authors to disclose. Both authors have seen the text and agree with its contents, and there is no financial interest to disclose. We certify that the submission is unique and that it is not currently under consideration by another publisher.

REFERENCES:

Agarwal, S., & Kaushik, J. S. (2020). Student's Perception of Online Learning during COVID Pandemic. *The Indian Journal of Pediatrics* , 554.

Bahasoan, A., Ayuandiani, W., Mukhram, M., & Rahmat, A. (2021). Effectiveness of Online Learning In Pandemic Covid-19. *International Journal Of Science, Technology & Management*.

Beqiri, M., & Chase, N. (2010). Online Course Delivery: An Empirical Investigation of Factors Affecting Student Satisfaction. *Journal of Education for Business*, 95-100.

Darius, P. S., Gundabattini, E., & Solomon, D. G. (2021). A Survey on the Effectiveness of Online Teaching–Learning Methods for University and College Students. *The Institution of Engineers* .

GCC-STAT. (2021, August). *Coronavirus Pandemic Counts Map (COVID-19) for The Cooperation Council for The Arab Countries of The Gulf*. Retrieved August 2021, from GCC STAT: https://gccstat.org/en/

Ghaderizefreh, S., & Hoover, M. (2018). Student Satisfaction with Online Learning in a Blended Course. *International Journal of Digital Society*.

Gilbert, B. (2015). Online Learning: Revealing the Benefits and Challenges. *Education Masters*.

Hermida, P. (2020). College students' use and acceptance of emergency online learning due to COVID-19. *International Journal of Educational Research*.

Kauffman, H. (2015). A review of predictive factors of student success in and satisfaction with online learning. *Research in Learning Technology*.

Kutty, S. (2017, December). *Do e-learning at approved centres*. Retrieved July 2021, from Oman Observer: https://www.omanobserver.om/article/67613/Front%20Stories/do-e-learning-at approved-centres

Lazim, C. S., Ismail, N. D., & Tazilah, M. D. (2021). Application of Technology Acceptance Model (TAM) Towards Online Learning During COVID19 Pandemic: Accounting Students Perspective . *International Journal of Business, Economics and Law*.

Lee, J. W. (2010). Online support service quality, online learning acceptance, and student satisfaction. *The Internet and Higher Education*, 277-283.

MOH Oman. (2020, February). *MOH Registers First Two Novel Coronavirus (COVID-2019) in Oman*. Retrieved July 2021, from Ministry of Health Oman: https://www.moh.gov.om/en/-/--1226

Mohamad, S. A., Hashim, H., Azer, I., Hamzah, H. C., & Halid, R. (2020). Gender Differences in Students' Satisfaction and Intention to the Continuation of Online Distance Learning. *International Journal of Academic Research in Business and Social Sciences* , 641-650.

Muthuprasad, T., Aiswarya, S., Aditya, K., & Jha, G. (2021). Students' perception and preference for online education in India during COVID -19 pandemic. *Social Sciences and Humanities Open*.

Nguyen, T. (2015). The Effectiveness of Online Learning:Beyond No Significant Difference and Future Horizons. *Journal of Online Learning and Teaching*.

Oman Observer. (2020, March). *Oman suspends schools, universities from Sunday*. Retrieved July 2021, from Oman Observer: https://www.omanobserver.om/article/14944/CORONAVIRUS/oman-suspends-schools-universities-from-sunday

Osman, M. E. (2020). Global impact of COVID-19 on education systems:the emergency remote teaching at Sultan Qaboos University. *Journal of Education for Teaching*, 463-471.

Peslak, A., Kovalchick, L., Wang, W., & Kovacs, P. (2018). Attitudes Toward Course Delivery:A Multi-University Study of Online,On-ground, And Hybrid Instruction. *Information Systems Education Journal (ISEDJ)*, 27-33.

Rahmoun, M., & Anis, B. S. (2018, April). *The relationship between customer satisfaction and perception of service quality: A case study of TUNISIE TELECOM.* Retrieved August 2021, from Research

Gate: https://www.researchgate.net/publication/324979440_The_relationship_between_customer_satisfaction_and_perception_of_service_quality_A_case_study_of_TUNISIE_TELECOM

Schwartz, D. (2012). Effectiveness of Learning in Online Versus On-Campus Accounting Classes:A Comparative Analysis. *Journal of Research in Innovative Teaching*, 63-77.

Tichavsky, L., Hunt, A., Driscoll, A., & Jicha, K. (2015). It's Just Nice Having a Real Teacher": Student Perceptions of Online versus Face-to-Face Instruction. *International Journal for the Scholarship of Teaching and Learning*.

UTAS RHS Committee. (2021, July). *RHS Guidance on Remote Learning and Remote Working for HCT during the Covid19 Pandemic*. Retrieved July 2021, from UTAS HCT: https://www.hct.edu.om/rhs/covid-19/remote-learning

Wei, H. C., & Chou, C. (2020). Online learning performance and satisfaction: do perceptions and readiness matter? *Distance Education*.

WHO. (2020, December). *Coronavirus disease (COVID-19): How is it transmitted?* Retrieved July 2021, from World Health Organization: https://www.who.int/news-room/q-a-detail/coronavirus-disease-covid-19-how-is-it-transmitted

Xu, Y. (2007). Customer Perception, Customer Satisfaction, and Customer Loyalty Within Chinese Securities Business. *Journal of Relationship Marketing*.

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