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ONLINE/VIRTUAL ACADEMIC PERFORMANCE OF HOSPITALITY MANAGEMENT STUDENTS: THE CHALLENGES AND COPING MECHANISM

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ABSTRACT

This study examined the online/virtual academic performance of Hospitality Management Students based on the level of challenges and coping mechanisms. The level of challenges and coping mechanisms the hospitality management students experienced during the synchronous and asynchronous learning with Wi-Fi connection and data connection was determined, and how it affected their academic performances. The respondents of this study were the 202 Hospitality Management Students of Iloilo Science and Technology University, Miagao Campus, composed of second-year to fourth-year level students. The survey questionnaire comprised three sections: the profile of the participants, the challenges in synchronous and asynchronous learning, and the coping mechanism in synchronous and asynchronous learning. It was hypothesized that there is no significant difference between the challenges and coping mechanisms in Hospitality Management Students in synchronous and asynchronous learning.

Keywords: Online/Virtual Academic Performance, Asynchronous, Challenges, Coping Mechanism, Synchronous

1. Introduction

Education is considered one of the ladders to success. Likewise, it is believed to be a human right, not a privilege. However, during the COVID-19 pandemic, everything suddenly changed, specifically the students' educational learning. They were restricted from attending face-to-face classes, which eventually hampered their learning abilities. For this reason, some students opt to stop their studies because of the difficulty of coping with the latest learning modalities, especially when the teachers require them to attend online classes.

One aspect used to assess student's classroom performance is their academic performance. However, in light of the COVID-19 pandemic's rapid impact, the transition from face-to-face classes to online or virtual classes significantly impacted both students and teachers. All institutions were forced to offer students online teaching environments that were instantaneously applicable and supportive of quality learning. It also led to various learning platforms wherein students can converge to learn. Learning modalities were either conducted in synchronous or asynchronous sessions. The students also utilized modules and other related instructional materials to ensure efficiency and effectiveness in learning delivery. The role of the teachers also has an impact on the learning ability of the students. The effectiveness of their teaching ability is also evident in that they have conveyed the lessons properly.

Eventually, the students could adjust and cope with the new normal, especially in online or virtual distance learning, though they have experienced challenges while utilizing such a learning mode. With technological innovations, universities were able to offer virtual classrooms for efficient online instruction (Paul & Jefferson, 2019). However, this method does not guarantee that the students will be effective and active in school, thus affecting their academic performances.

Learning factors such as poor internet connectivity and unavailability of devices for online classes hinder

their study interest. Similarly, environmental, personal, and emotional factors also hamper the student's interest in attending their classes. The abrupt transition to online classes has caused college students to suffer psychological consequences due to their constant isolation and lack of engagement with their peers and lecturers (Lim et al., 2022). However, amidst the pandemic, some students are still passionate about continuing their studies despite the challenges they have experienced. These trials became their coping mechanism for being more productive and effective during online classes.

2. Literature Review

2.1. Online Learning Modalities during COVID-19

Universities were pushed to offer students online teaching and learning environments that were instantly applicable and supportive of quality learning in light of the COVID-19 pandemic's quick impact. This led to various synchronous and asynchronous online teaching and learning environments. While some courses combined the two, others primarily used synchronous or asynchronous teaching and learning methods (Fabriz et al. (2021).

Tavitiyaman et al. (2021) stated that because of the current COVID-19 pandemic, all teaching and learning activities have been compelled to move to online platforms. While hospitality students are adjusted to offline learning environments and frequently take mixed learning of academic and practical components, they are not exempt from this change. This abrupt transition has disrupted their learning process and triggered various worries.

According to Bao (2020), a significant "migration" from traditional in-person instruction to online instruction has been taking place at Chinese institutions since the early spring of 2020, which is unprecedented. As a result of the prevalent Coronavirus disease (COVID-19) in China, most Chinese colleges have begun offering online courses in compliance with the government's mandate for "nonstop teaching and learning." Millions of instructors began teaching in front of computers in a short amount of time, requiring their students to stay at home and take the courses online.

Colleges and universities must decide how to carry on with teaching and learning while protecting their faculty, staff, and students from a public health emergency that is spreading quickly and is little understood due to the threat of COVID-19. To assist in stopping the spread of the virus that causes COVID-19, many schools have decided to cancel all in-person classes, including labs and other learning opportunities, and have ordered teachers to transfer their courses online. Each day, higher education institutions add their names to the list of those adopting this choice. Most educational institutions, including state universities, Ivy League colleges, community colleges, and others, are relocating their courses online (Hodges et al., 2020).

An alarming health crisis has suddenly shaken the school system, threatening its foundation. Given the current uncertainties, obtaining a more detailed view of students' online learning experiences during the COVID-19 outbreak is crucial. Their most difficult challenge was related to their learning environment at home, whereas technical literacy and competency were the least difficult. According to the data, the COVID-19 pandemic had the most impact (Baron et al., 2021).

According to Fernandez and Manivannan (2022), asynchronous activities were also perceived as a burden by students due to the large number of written tasks that had to be completed in a short amount of time. Overall, the COVID-19 pandemic has been difficult for both students and instructors. Teachers, on the other hand, have assisted students in learning using digital platforms. Most respondents said that technological disturbances and mortality in the family circle were major reasons for their inability to concentrate during online sessions.

2.2 Theoretical Framework

This study adopted the Achievement Goal Theory (AGT) of Elliot (2005), which defines a program of cognitive processes that have implications for cognition, affect, and behavior that go into achieving a goal. According to Dweck & Leggett (1988), Ames (1992), and Urdan (1997), this theory states that students' motivation and behaviors associated with achievement can be understood by the goals and motivations they have while participating in learning activities. In the conventional set-up, an efficient way to accomplish the goal is through classroom instruction (Ames & Archer, 1988; Ames, 1992; Clayton et al., 2010). However, according to Azlan et al. (2020), in the contemporary period, the delivery of lectures via the Internet is also one of the most efficient technologies, and web-based applications are replacing traditional classrooms.
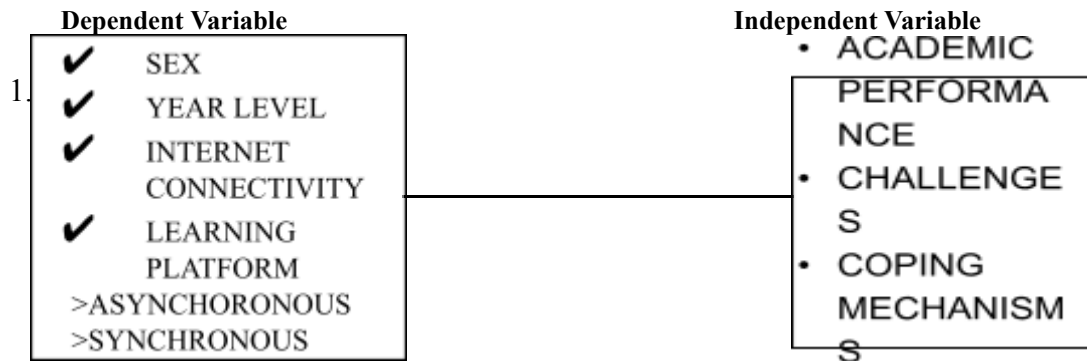
2.3 Research's Paradigm

Dependent Variable   **Independent Variable**

1.

✔ SEX
✔ YEAR LEVEL
✔ INTERNET CONNECTIVITY
✔ LEARNING PLATFORM
>ASYNCHORONOUS
>SYNCHRONOUS

- ACADEMIC PERFORMANCE
- CHALLENGES
- COPING MECHANISMS

Figure 1. Research's Paradigm.

2.4 Research Questions

The study aims to determine the online/virtual academic performance of Hospitality Management Students (HMS) based on the level of challenges and coping mechanisms.

Specifically, this study aims to answer the following questions:

What are the profiles of HMS in terms of sex, year level, and internet connectivity?

What are HMS's academic performances in terms of sex, year level, and internet connectivity?

What are the academic performances of HMS when taken as a whole?

What is the level of challenges in learning HMS?

What is the level of coping mechanisms of the Hospitality Management students?

Is there a significant difference in the level of challenges and learning according to sex, year level, and internet connectivity?

Is there a significant difference in the level of coping mechanisms when classified by sex, year level, and internet connectivity?

Is there a significant difference in the student's academic performance when classified according to sex, year level, and internet connectivity?

Is there a significant correlation between academic performance and challenges in the asynchronous and synchronous learning modality?

Is there a significant correlation between academic performance and coping mechanisms in asynchronous and synchronous learning modalities?

3. Methodology

3.1. Research Design

This study utilized the descriptive method to determine Hospitality Management students' online/virtual academic performance. A self-administered questionnaire was used to assess Hospitality Management students' online/virtual learning performance and the effect of challenges and coping mechanisms on their academic performance. According to McCombes (2023), descriptive research aims to correctly and thoroughly describe a population, situation, or phenomenon. It can answer the questions of what, where, when, and how, but not why. Also, a descriptive research design might employ a wide range of research methods to investigate one or more variables. In contrast to experimental research, the researcher does not control or change any variables but instead observes and measures them. The survey received 202 responses from ISAT U, Miagao Campus 2nd, 3rd, and 4th Year Hospitality Management Students. Respondents were personally asked to complete the questionnaire, and after approval, the Google form link was distributed via the class group chat.

3.2. Respondents of the Study

The study's respondents are the BS in Hospitality Management Students of Iloilo Science and Technology University Miagao Campus. They were requested to answer a self-administered questionnaire through Google Forms. The researchers utilized quota sampling as the statistical tool to identify the respondents. Quota sampling is a non-probability sampling technique where samples are chosen based on a probability

proportional to the distribution of a population variable (Rukmana, 2014).

Table 1**.** Distribution of Respondents.

Respondents	Frequency (n)
Second Year	52
Third Year	60
Fourth Year	90
Total	**202**

The respondents of the study were equally distributed among the BS in Hospitality Management students through email using Google Forms.

3.3. Research Instrument

The researchers utilized the self-administered questionnaire (SAQ) as the main instrument of the study. These were adapted from Gopal, Singh & Aggrawal (2021), "Impact of online classes on the satisfaction and performance of students during the pandemic period of COVID-19". The researchers also employed past studies to create the right survey indicators.

The questionnaire was divided into three parts: Part I is the profile of the respondents. Part II focused on the challenges of asynchronous and synchronous learning for hospitality management students. The last section of the questionnaire focused on the students' coping mechanisms with asynchronous and synchronous learning. The indicators were measured through a five-point Likert scale ranging from 1 (very low) to 5 (very high). The range was $1.0 - 1.80$, $1.81 - 2.6$, $2.61 - 3.4$, $3.41 - 4.20$, $4.21 - 5.00$, and described as very low, low, moderate, high, and very high, respectively. The valuing scale was used to describe the mean rating score of the different variables under challenges, coping mechanisms, synchronous, and asynchronous.

3.4. Data Gathering Collection

The data-gathering process started by requesting the HMS to answer the survey questionnaire. The students were personally asked to answer the questionnaire. Upon approval, the researcher immediately sent the Google form link to the class group chat for easy and online access to the survey questionnaire. The respondents voluntarily participated in the study. The researchers assured that all the details and information, including the instructions, will be confidential. Lastly, upon retrieval of the complete answered Google form questionnaire, the raw data were encoded, analyzed, and interpreted using suitable statistical tools.

3.5. Data Analysis

The questionnaire responses were encoded, tallied, and tabulated appropriately. The responses were evaluated using the relevant statistical procedures, including both inferential and descriptive statistics.
3.5.1. The frequency and percentage distribution
3.5.2. Mean and Standard Deviation
3.5.3. T-test
3.5.4. ANOVA
3.5.5. Pearson Correlation Coefficient or Pearson R Test

4. Results And Discussion

Table 2. Profile of Respondents.

Demographics		Frequency	Percentage (%)
Sex	Female	158	78.22
	Male	44	21.78
Year Level	2nd Year	52	25.74
	3rd Year	60	29.70
	4th Year	90	44.55
Internet Connectivity	Wi-Fi	54	26.73
	Data	148	73.27
	Total	202	100.00

Table 2 shows the 202 HMS who participated in the study. The result showed that over half of the Hospitality Management students, 158 (78.22%), were from the female group, and 44 (21.78%) of the Hospitality Management students were from the male group.

Based on the respondents' profiles as to year level, 52 (25.74%) of HMS were from the 2nd Year Level, 60 (29.7%) were 3rd Year Level students, and 90 (44.55%) were from the 4th Year Level, which was also the highest number of responses. Regarding internet connectivity, 148 (73.27%) used a data connection, and 54 (26.73%) used a Wi-Fi connection.

Table 3. Academic Performance regarding Sex, Internet Connectivity, and Year Level.

Variables		M(SD)	Description
Sex	Female	1.81(0.330)	Very Low
	Male	1.77(0.291)	Low
Year Level	2nd Year	1.92(0.439)	Very Low
	3rd Year	1.77(0.192)	Very Low
	4th Year	1.72(0.234)	Low
Internet Connectivity	Wi-Fi	1.80(0.332)	Very Low
	Data	1.78(0.290)	Very Low
	Total	1.79(0.301)	Very Low

Legend: 4.21-5.00 (Very High), 3.41-4.20 (High), 2.61-3.4 (Moderate), 1.81-2.6 (Low), 1.0-1.80 (Very low)

Table 3 shows the academic performance of HMS in terms of sex, internet connectivity, and year level. As to sex, male students had a very low academic performance, with a rate of 1.77 (0.291) compared to female students. As to year level, third-year students had very low ratings of 1.77 (0.192), and as to internet connectivity, both male and female respondents had very low ratings.

Table 4. Academic Performance of Hospitality Management Students When Taken as a Whole.

Variables		M(SD)	Description
Sex	Female	3.82 (0.579)	High
	Male	3.79 (0.645)	High
Year Level	2nd Year	3.64 (0.600)	High
	3rd Year	3.88 (0.510)	High
	4th Year	3.87 (0.625)	High
Internet Connectivity	Wi-Fi	3.84 (0.544)	High
	Data	3.80 (0.611)	High
	Total	3.81 (0.592)	High

Legend: 4.21-5.00 (Very High), 3.41-4.20 (High), 2.61-3.4 (Moderate), 1.81-2.6 (Low), 1.0-1.80 (Very low)

Table 4 shows the academic performance of HMS. When taken as a whole, the results showed that the respondents got high ratings for sex, year level, and internet connectivity. Based on the results, as to sex, male students got high results of 3.79 (0.645) compared to female students, while as of year level, 4th-year students got high results of 3.87 (0.625), and data accessed got high results of 3.80 (0.611) for internet connectivity.

Table 5. Level of Challenges in Asynchronous Learning.

Variables		M(SD)	Description
Sex	Female	3.82 (0.579)	High
	Male	3.79 (0.645)	High
Year Level	2nd Year	3.64 (0.600)	High
	3rd Year	3.88 (0.510)	High
	4th Year	3.87 (0.625)	High
Internet Connectivity	Wi-Fi	3.84 (0.544)	High
	Data	3.80 (0.611)	High

		Total	3.81 (0.592)	High

Legend: 4.21-5.00 (Very High), 3.41-4.20 (High), 2.61-3.4 (Moderate), 1.81-2.6 (Low), 1.0-1.80 (Very low)

The level of challenges in asynchronous learning got an overall mean of 3.81 (0.592), meaning that the 202 respondents rated "high" on the challenges in asynchronous learning. This result shows that male and female HMS from second to fourth years who used Wi-Fi and data internet connectivity rated "high" on all the indicators of challenges in asynchronous learning.

Table 6. Level of Challenges in Synchronous Learning.

Variables		M(SD)	Description
Sex	Female	3.78 (0.535)	High
	Male	3.70 (0.623)	High
Year Level	2nd Year	3.57 (0.522)	High
	3rd Year	3.84 (0.555)	High
	4th Year	3.82 (0.553)	High
Internet Connectivity	Wi-Fi	3.79 (0.559)	High
	Data	3.75 (0.555)	High
	Total	3.75 (0.557)	High

Legend: 4.21-5.00 (Very High), 3.41-4.20 (High), 2.61-3.4 (Moderate), 1.81-2.6 (Low), 1.0-1.80 (Very low)

The level of challenges in asynchronous learning got an overall mean of 3.81 (0.592), meaning that the 202 respondents rated "high" on the challenges in asynchronous learning. This result shows that male and female HMS from second to fourth years who used Wi-Fi and data internet connectivity rated "high" on all the indicators of challenges in asynchronous learning.

Table 7. Level of Coping Mechanisms in Asynchronous Learning.

Variables		M(SD)	Description
Sex	Female	4.00 (0.640)	High
	Male	3.84 (0.649)	High
Year Level	2nd Year	3.84 (0.593)	High
	3rd Year	3.98 (0.661)	High
	4th Year	4.03 (0.656)	High
Internet Connectivity	Wi-Fi	3.90 (0.714)	High
	Data	3.99 (0.617)	High
	Total	3.97 (0.644)	High

Legend: 4.21-5.00 (Very High), 3.41-4.20 (High), 2.61-3.4 (Moderate), 1.81-2.6 (Low), 1.0-1.80 (Very low)

The level of coping mechanisms in synchronous learning got an overall mean of 3.97 (0.644), which means that the 202 respondents rated "high" on the level of coping mechanisms in synchronous learning. This result shows that in HMS from the second to fourth years, both males and females who used Wi-Fi and data internet connectivity were rated "high" in all the indicators of coping mechanisms in asynchronous learning.

Table 8. Level of Coping Mechanisms in Synchronous Learning.

Variables		M(SD)	Description
Sex	Female	3.90 (0.665)	High
	Male	4.09 (0.652)	High
Year Level	2nd Year	3.88 (0.614)	High
	3rd Year	4.03 (0.682)	High
	4th Year	4.15 (0.651)	High
Internet Connectivity	Wi-Fi	4.09 (0.683)	High
	Data	4.03 (0.649)	High

	Total	4.05 (0.657)	High

Legend: 4.21-5.00 (Very High), 3.41-4.20 (High), 2.61-3.4 (Moderate), 1.81-2.6 (Low), 1.0-1.80 (Very low)

The level of coping mechanisms in synchronous learning got an overall mean of 4.05 (0.657), which means that the 202 respondents rated "high" on the level of coping mechanisms in synchronous learning. This result shows that in HMS from the second to fourth years, both males and females who used Wi-Fi and data internet connectivity were rated "high" in all the indicators of coping mechanisms in synchronous learning.

Table 9. Differences in Academic Performance when classified as Sex and Internet Connectivity

Variables	M	df	t	p
Sex				
Male	1.85	200	-1.479	0.141
Female	1.78			
Internet Connectivity				
Wi-Fi	1.80	200	0.250	0.803
Data	1.79			

The result shows no significant differences in students' academic performance when classified by sex (p=0.141) and internet connectivity (p=0.803). This confirms that both males and females use Wi-Fi, and Data connections have no significant effect on their academic performance.

Table 10. Differences in Academic Performance when classified as to Year Level

Variables	M	F(199,2)	p
Year Level			
Second Year	1.93_a		
Third Year	1.78_b	7.611	0.001*
Fourth Year	1.73_b		

Note: According to the LSD procedure, means with the same subscript are not statistically different at alpha greater than .05. *Significant at p <.05.

Table 10 shows the differences in academic performance when classified by year level. The statistics show a significant difference in academic performance when classified by year level. The 2nd-year HMS has lower performance with a 1.93a compared to the 3rd year with a 1.78b and the 4th year with a 1.73b. The results of both 3rd-year and 4th-year students are statistically the same.

Table 11. Differences in Challenges and Mechanisms in Asynchronous learning when classified as to Year Level

Variables	M	F(199,2)	p
Challenges			
Year Level			
Second Year	3.64		
Third Year	3.88	3.03	0.051
Fourth Year	3.87		
Coping Mechanism			
Year Level			
Second Year	3.84		
Third Year	3.98	1.467	0.233
Fourth Year	4.03		

The statistics show no significant difference in the level of challenges and coping mechanisms in asynchronous learning when classified to year level. The p values are more significant than 0.05, meaning that the level of challenges and coping mechanisms have no significant effect on the asynchronous learning modality of the Hospitality Management Students.

Table 12. Differences in Challenges and Coping Mechanisms in Synchronous Learningwhen classified as to Year Level

Variables	M	F(199,2)	p
Challenges			
Year Level			
Second Year	3.57_a		
Third Year	3.84_b	4.379	0.014*
Fourth Year	3.82_b		
Coping Mechanism			
Year Level			
Second Year	3.88		
Third Year	4.03	2.846	0.060
Fourth Year	4.15		

Note: According to the LSD procedure, means with the same subscript are not statistically different at alpha greater than 0.05. *Significant at $p < 0.05$.

The result shows that there is a significant difference in the level of challenges and coping mechanisms in synchronous learning when classified to year level. This result means that the 2nd year level showed a lower mean score of 3.57a in the level of challenges and 3.88 for the level of coping mechanisms compared to the 3rd year, which got a mean score of 3.84b for the level of challenges and 4.03 for the level of coping mechanisms. For the 4th year, students got a mean score of 3.82b for the level of challenges and 4.15 for the level of coping mechanisms. Likewise, the 3rd and 4th year students have the same level of challenges.

Table 13. Differences in Challenges and Coping Mechanisms in Asynchronous Learning when classified as to Sex and Internet connectivity

Variables	M	df	t	p
Challenges				
Sex				
Male	3.79	200	0.302	0.763
Female	3.82			
Internet Connectivity				
Wifi	3.84	200	0.482	0.631
Data	3.80			
Coping Mechanism				
Sex				
Male	3.84	200	1.477	0.141
Female	4.00			
Internet Connectivity				
Wi-Fi	3.90	200	-0.848	0.397
Data	3.99			

Table 13 shows that there is no significant difference in all variables. For the challenges in asynchronous learning, the male group got a mean score of 3.79 and 3.82 for the female group and a p-value of 0.763. Likewise, the internet connectivity and Wi-Fi connection got a mean score of 3.84 and 3.80 for Data Connection with a p-value of 0.631. Moreover, for the coping mechanism in asynchronous learning, the male group got a mean score of 3.84 and 4.00 for the female group, with a p-value of 0.141. While for the internet connectivity, the Wi-Fi Connection got a mean score of 3.90 and 0.399 for the Data Connection with a p-value of 0.397.

Table 14. Differences in Challenges and Coping Mechanisms in Synchronous Learning
when classified as to Sex and Internet connectivity

Variables	M	df	t	p
Challenges				
Sex				
Male	3.70	200	0.891	0.374
Female	3.78			
Internet Connectivity				
Wifi	3.79	200	0.482	0.630
Data	3.75			
Coping Mechanisms				
Sex				
Male	3.90	200	1.627	0.105
Female	4.09			
Internet Connectivity				
Wifi	4.09	200	0.504	0.615
Data	4.03			

Table 14 shows that there is no significant difference in all the variables. For the challenges in asynchronous learning, the male group got a mean score of 3.70 and 3.78 for the female group and a p-value of 0.374. Likewise, the internet connectivity and Wi-Fi connection got a mean score of 3.79 and 3.75 for Data Connection with a p-value of 0.630. On the other hand, for the level of coping mechanisms in synchronous learning, the male group got a mean score of 3.90 and 4.09 for the female group, with a p-value of 0.105. While for the internet connectivity, the Wi-Fi Connection got a mean score of 4.09 and 4.03 for the Data Connection with a p-value of 0.615.

Table 15. Correlation between Identified Variables

Variable	r	r^2	p	Description
Asynchronous				
Academic Performance and Challenges	-0.021	0.000441	0.770	Very Low - Correlation
Academic Performance and Coping Mechanisms	0.010	0.0001	0.883	Very Low + Correlation
Synchronous				
Academic Performance and Challenges	-0.017	0.000289	0.812	Very Low - Correlation
Academic Performance and Coping Mechanisms	0.061	0.003721	0.391	Very Low + Correlation

Table 15 shows that the p-value suggests no significant correlation exists between academic performance and challenges and coping mechanisms. This result means that the level of challenges and coping mechanisms with the asynchronous learning modality is not significant and has a very low negative correlation with the student's academic performance.

Likewise, there is no significant correlation between academic performance on challenges and coping mechanisms in the synchronous learning modality. This result means that the level of challenges and coping mechanisms with the synchronous learning modality is not significant, with a very low negative correlation to the student's academic performance.

Table 16. Correlation between Identified Variables

Variable	r	r^2	p	Description
Asynchronous				
Challenges - Coping mechanisms	0 .396	0.01568	0.000	Moderate + Correlation
Synchronous				
Challenges – Coping mechanisms	0.0562	0.316	0.000	Moderate + Correlation

Table 16 shows the correlation between challenges and coping mechanisms in asynchronous and synchronous learning modalities. The results show that there is a significant positive moderate correlation between the challenges and coping mechanisms in the students' asynchronous and synchronous learning

modality.

5. Summary, Conclusions, And Recommendation

The study was conducted to determine HMS's online/virtual learning performance based on challenges and coping mechanisms. It examined how challenges and coping mechanisms in synchronous and asynchronous learning affect the academic performance of HMS. The respondents were the 202 HMS of Iloilo Science and Technology, Miagao Campus.

Data were analyzed using frequency, percentage, weighted mean, and standard deviation for descriptive statistics. Pearson's R was used for the study's inferential component, which assessed the relationship between challenges and coping mechanisms in synchronous and asynchronous learning and its effect on HMS's academic performance.

5.1 Summary of Findings

Based on the statement of the problem listed in Chapter 1, the following findings are given:

For the profile of the respondents in terms of sex, out of 202 respondents, 78.22% or 158 of the respondents belong to the female group, and 21.78% or 44 of the respondents belong to the male group. In terms of year level, 25.74% or 52 of the respondents belong to the 2nd-year level group, 29.7% or 60 of the respondents belong to the 3rd-year level group, and 44.55% or 90 of the respondents belong to the 4th-year level group. The result also shows that in terms of internet connectivity, 26.73% or 54 of the respondents use a Wi-Fi Connection, and 73.27% or 148 of the respondents use a Data connection.

The results show that both males and females using Wi-Fi and Data connections on all three-year levels have rated "high" on the given indicators and the overall mean in terms of the level of challenges and coping mechanisms in asynchronous and synchronous learning. There are no significant differences in the academic performance of the HMS, both male and female. This result confirms that the level of challenges and coping mechanisms with using Wi-Fi and Data connections for both males and females has no significant effect on their academic performance.

There is a significant difference in academic performance when classified by year level. The 2nd-year HMS performs lower than the 3rd—and 4th-year students, but the results of both 3rd—and 4th-year students are statistically the same. When classified to year level, there is no significant difference in the level of challenges and coping mechanisms in asynchronous and synchronous learning. The p-values are greater than .05, which means that the level of challenges and coping mechanisms have no significant effect on the asynchronous learning of the Hospitality Management Students.

When classified by year level, there is a significant difference in the level of challenges and coping mechanisms in synchronous and asynchronous learning. This means that the second-year level showed a lower mean score in the challenges and three coping mechanism levels compared to the third and fourth years. There is no significant difference in challenges and coping mechanisms in asynchronous and synchronous learning of the HMS when classified as sex and internet connectivity.

There is no significant correlation between academic performance, challenges, and coping mechanisms. This means that the level of challenges and coping mechanisms in both asynchronous and synchronous learning modalities is not significant and has a very low negative correlation with the student's academic performance. There is a significant positive moderate correlation between the challenges and coping mechanisms in the students' asynchronous and synchronous learning modality.

5.2 Conclusions

According to the significant results of the study, several conclusions are obtained:

Most hospitality management students use data connection during synchronous and asynchronous learning.

The level of challenges and coping mechanisms regarding using Wi-Fi and Data connections for both males and females have no significant effect on their academic performance. The study concluded that the level of challenges and coping mechanisms in both asynchronous and synchronous learning does not significantly affect the student's academic performance.

The study also concluded that the second-year HMS performed better academically than the third and fourth-year students. Likewise, it was concluded that the challenges and coping mechanisms in

synchronous and asynchronous learning regarding sex and internet connectivity do not affect the academic performance of HMS.

5.3 Recommendations

Based on the results of the study, the following are recommended:

More open communication between the teacher and the student could develop a teacher-relationship, which could help the students be more progressive in their education and avoid gaps in their learning. Facilitate a training or workshop for students related to the possible challenges they may encounter throughout their education journey and develop a list of coping strategies to help prevent the possible negative effects on students.

6. Acknowledgement

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