

Perspectives on the Dimensions Affecting the Quality of Online Learning Amidst Pandemic

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DOI: 10.29322/IJSRP.12.12.2022.p13244
<http://dx.doi.org/10.29322/IJSRP.12.12.2022.p13244>

Paper Received Date: 5th November 2022
Paper Acceptance Date: 5th December 2022
Paper Publication Date: 20th December 2022

Abstract- This study ascertained the perspectives of the respondents on the dimensions affecting the quality of online learning amidst pandemic. The study further investigated the dimensions influencing the quality of online classes, such as administrative support, course content, course design, instructor characteristics, learner characteristics, social support, and technological support, which affects the quality of online classes for the 1st and 2nd Semester of A.Y. 2020-2021. The study instrument is a questionnaire adapted from the study of (Elumalai, K., Sankar, J. et al. 2020). The study aims to ascertain the quality of online classes in the College of Business, Entrepreneurship, and Accountancy from the perspectives of CBEA Administrators, CBEA Instructors, and Students. The method employed in the study was descriptive correlational. Findings show a positive relationship between the set of online learning profile variables and the dimensions affecting the quality of online learning as perceived by the three (3) groups of respondents.

Index Terms- Covid-19 Pandemic; Dimensions; Online Learning; Perspective

I. INTRODUCTION

The pandemic has a significant effect on the educational system of the university. Since Covid-19 can cause death, it prohibits people from staying outside; hence, it brought a new phase in education called “online classes.” This kind of learning is possible through electronic technology like portals to access lectures, activities, assignments, and the like, unlike face-to-face classes where the teacher teaches course contents and learning materials to students.

There are several drawbacks to online learning, and these must be addressed to ensure the legitimacy and longevity of the online learning industry, as explained in (<https://e-student.org/disadvantages-of-e-learning/>). The following are the disadvantages of E-learning: Online student feedback is limited, E-learning can cause social isolation, E-learning requires strong self-motivation and time management skills, lack of communication skill development in online students, cheating prevention during online assessments is complicated, online instructors tend to focus on theory on rather than practice, E-learning lacks face-to-face communication, E-learning is limited to specific disciplines, Online learning is inaccessible to the computer illiterate population and lack of accreditation and quality assurance in online education.

Schools and universities are now thinking of ways to improve students' online learning experiences, which will lead to better learning outcomes. Schools like Cagayan State University feel an urgent need to research this for the students to have a better online learning experience. The information gained from the respondents' perspectives is essential to think that their opinions are being valued. These can be used to answer research gaps along with the quality of online learning. In like manner, the researchers believed that the study results would provide helpful information in the "world of online learning" Hence, this study.

II. STATEMENT OF THE PROBLEM

This study attempted to ascertain the respondents' perspective on the dimension affecting the quality of online learning amidst pandemic.

Specifically, it answered the following questions:

1. What is the online learning profile of the respondents in terms of:
 - 1.1 Source of internet connection
 - 1.2 Primary gadget used for online learning
 - 1.3 Internet Connection Speed Used in Online Learning
 - 1.4 Location during Online Learning
2. What is the perception of the Students, Faculty, and College Administrators on the dimensions affecting the quality of online learning relative to:

- 2.1 Administrative Support
- 2.2 Course Content
- 2.3 Course Design
- 2.4 Social Support
- 2.5 Technical Support
- 2.6 Instructor Characteristics
- 2.7 Learner Characteristics

3. Is there a significant difference among the perception of Students, Faculty, and College Administrators on the dimensions affecting the quality of online learning relative to:

- 3.1 Administrative Support
- 3.2 Course Content
- 3.3 Course Design
- 3.4 Social Support
- 3.5 Technical Support
- 3.6 Instructor Characteristics
- 3.7 Learner Characteristics

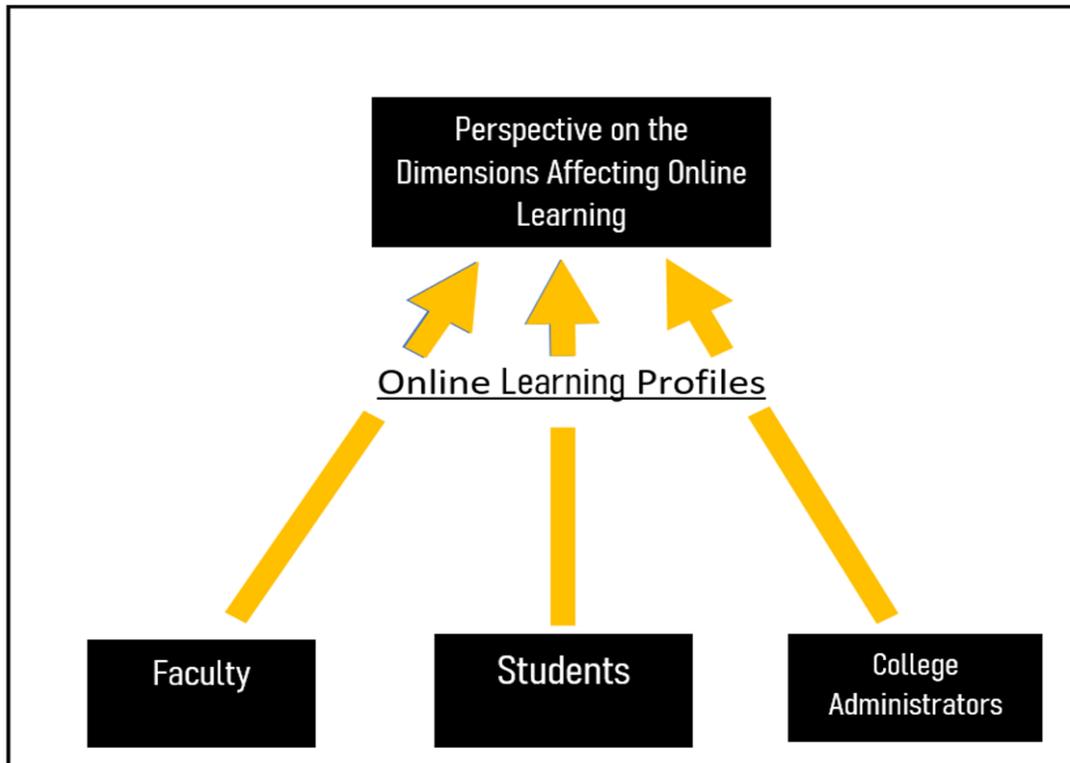
4. Is there a significant relationship in the respondents' perception of the dimensions affecting the quality of online learning when grouped according to online learning profile?

HYPOTHESES

The following hypotheses guided the study:

1. There is no significant difference among students, faculty, and college administrators' perception on the dimensions affecting the quality of online learning.
2. There is no significant relationship in students' perception of the dimension affecting the quality of online learning when grouped according to their online learning profile.

RESEARCH PARADIGM



The figure presents a triangular design, showing the perspective of the three distinct groups – Students, Faculty, and College Administrators on the dimensions affecting the quality of online learning. The participants were asked to respond to a survey questionnaire that includes online learning profile and 28 items measuring the seven (7) dimensions affecting the quality of online learning.

SIGNIFICANCE OF THE STUDY

The results of the study are helpful to the following individuals:

Internet Service Provider: The result allows the internet service providers to improve the service/s they provide. This will pave way to clientele satisfaction.

Parents: Parents be informed about the use of online learning modalities and how it affects the quality of online learning.

School Administrators: It serves as a benchmark for the school administrators to improve technical support in online education delivery to enhance the online learning experience.

Students: It provides concrete evidence from students' experiences concerning online learning, rather than mere claims by other people.

Teachers: The study data will be an influential tool in planning the teaching strategies to be applied, especially in online classes.

Future Researchers: It serves as a basis in identifying factors that can affect the quality of online learning. However, this is not the ending point. The data collected by this study alone recommends further researches to conduct new research raised by this research.

SCOPE AND LIMITATION

The study is limited in determining the relationship of the online learning profile variables to the seven dimensions affecting the quality of online learning amidst pandemic. Tests of relationships and differences among variables be conducted. A questionnaire via google form was administered to the 400 2nd year students across all college programs, 25 permanent CBEA Faculty, and nine (9) administrators of CBEA - CSU, Andrews Campus for 1st semester, A.Y. 2021-2022.

DEFINITION OF TERMS

The following terms are subsequently defined for easier understanding by the readers:

Connection Speed: Refers to the speed of internet

Gadgets: Pertains to the technology used by the respondents in online learning.

LENS: It is the online learning management system of the university

Mbps: Represents the speed an internet plan is offering.

Perception: The belief or opinion of the respondents on the dimensions affecting the quality of online learning.

Triangulation: How an alternate perspective is used to validate, challenge or extend existing findings.

RESEARCH METHODOLOGY

RESEARCH DESIGN

The method employed is the descriptive correlational method since the primary purpose of the study is to ascertain the respondents' perspective on the dimensions affecting the quality of online learning amidst pandemic. According to Sevilla, a descriptive study involves collecting data to test hypotheses or answer questions concerning the current status or subject of the study. Correlational studies are designed to help the researchers determine how different variables are related to each other in the population of interest.

RESPONDENTS OF THE STUDY

The respondents of the study are CBEA 2nd year students, instructors, and administrators.

Table 1
Frequency Distribution of Respondents

Distinct Groups	Frequency	Percentage
Students	400	92%
Faculty	25	6%
College Administrators	9	2%
TOTAL	434	100%

Table 1 presents the frequency and percentage distribution of the respondent. There are 400 or 92% of the 2nd year students across all programs, 25 or 6% CBEA faculty, and 9 or 2% CBEA administrators: the College Dean, Department Chairs, and Program Coordinators.

Table 3
Online Learning Profile of the Respondents in Terms of the Source of Internet Connection

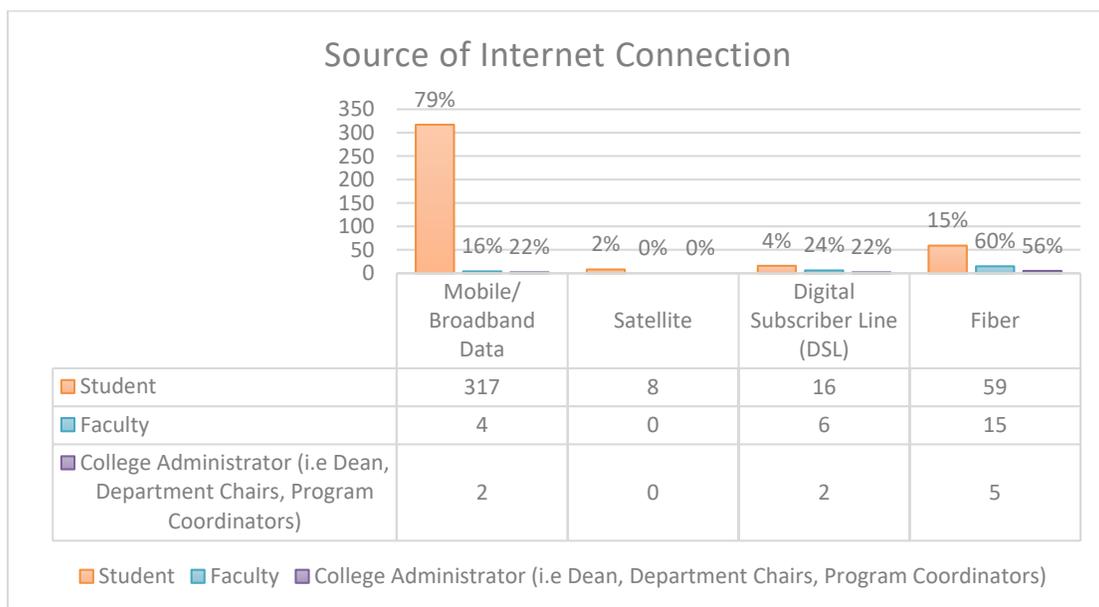


Table 3 shows the source of internet connection of the respondents. College administrators with 5 or 56% and faculty with 15 or 60% use fiber from the various internet connection. This implies that the most favorable internet service provider considering connection speed, reliability, and efficiency in online classes. In students' case, 317 or 79% of them favor using mobile/broadband data. Since telephone companies like PLDT and Globe provide the fastest option to access the internet, it also allows the students to save money. On the other hand, the use of satellite is the least preferred source of internet connection by the three groups of respondents. The results can be attributed to a satellite internet option being used in areas where a broadband connection is unavailable.

Table 4
Online Learning Profile of the Respondents in Terms of Primary Gadget Used for Online Learning

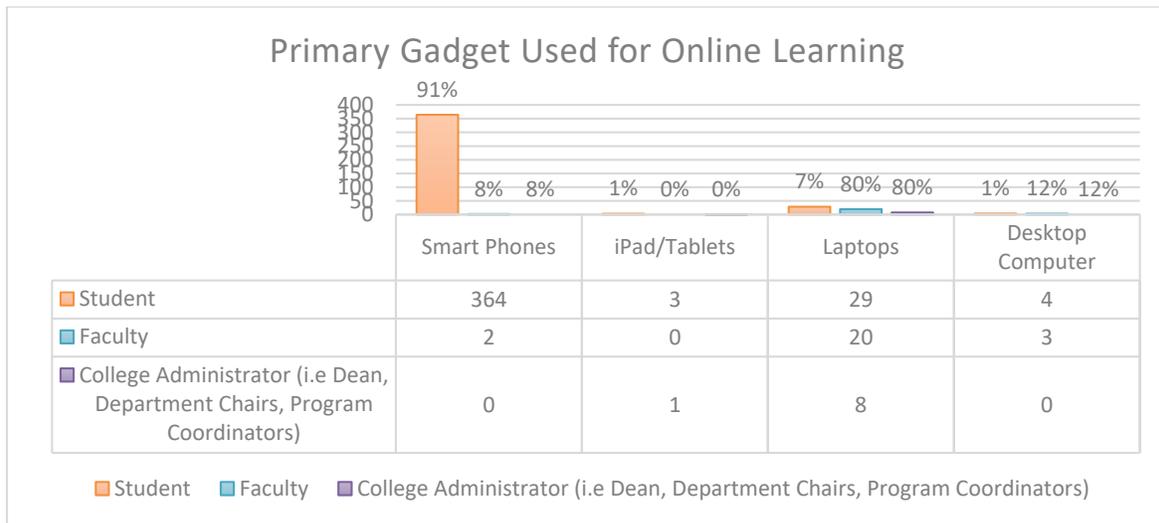


Table 4 shows the primary gadget used by the respondents for online learning. 8 or 80% of the college administrators and 20 or 80% of the faculty use laptops in online learning. This can be attributed to the unique and essential features of laptops suitable for online learning. Furthermore, it also allows the respondents to bring and use it anytime and anywhere. However, 364 or 91% of the students are using smartphones which can function like laptops. In contrast, smartphones and iPads/tablets are the gadgets that college administrators do not use because they prefer to use laptops and desktops over the said gadgets.

Table 5
Online Learning Profile of the Respondents in Terms of Internet Connection Speed Used in Online Learning

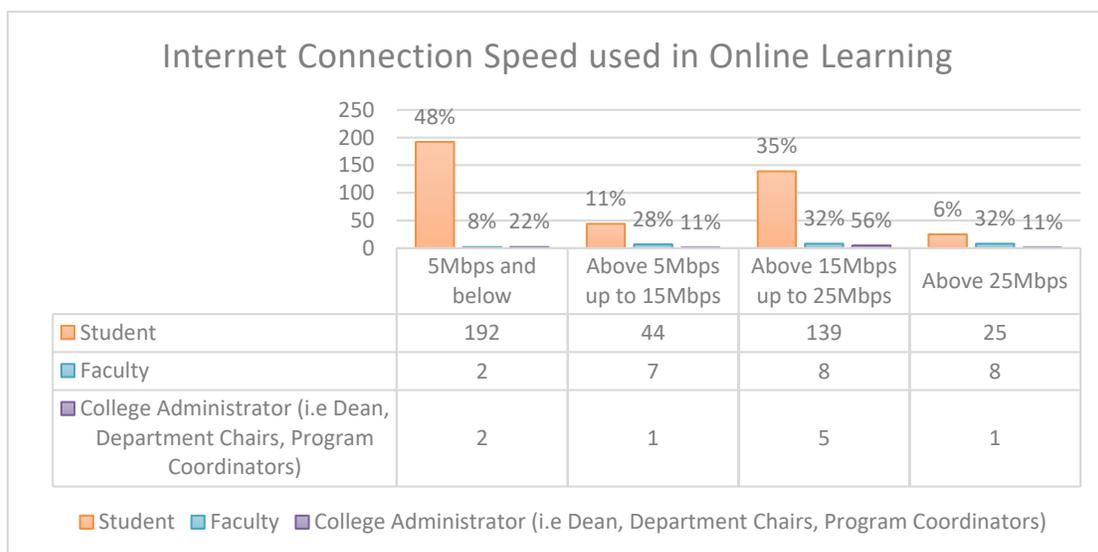


Table 5 shows the internet connection speed in online learning. It is revealed that 5 or 56% of the college administrators have above 15 Mbps up to 25 Mbps internet connection speed. Same with the 8 or 32% of the faculty respondents. According to (<https://www.fcc.gov/reports-research/guides/broadband-speed-guide?kbid=120594>) for browsing, email, and social media, the bare minimum download speed is only 1 Mbps, this explains that the respondents can enjoy a better online learning experience since the

Mbps is much higher than the required Mbps for online learning activities. Majority of the students, with 192 or 48% of them, have 5 Mbps and below. Considering the socio-economic status of the student respondents coming from a low-income family, they can afford is just 5Mbps and below.

Table 6
Online Learning Profile of the Respondents in Terms of Location during Online Learning

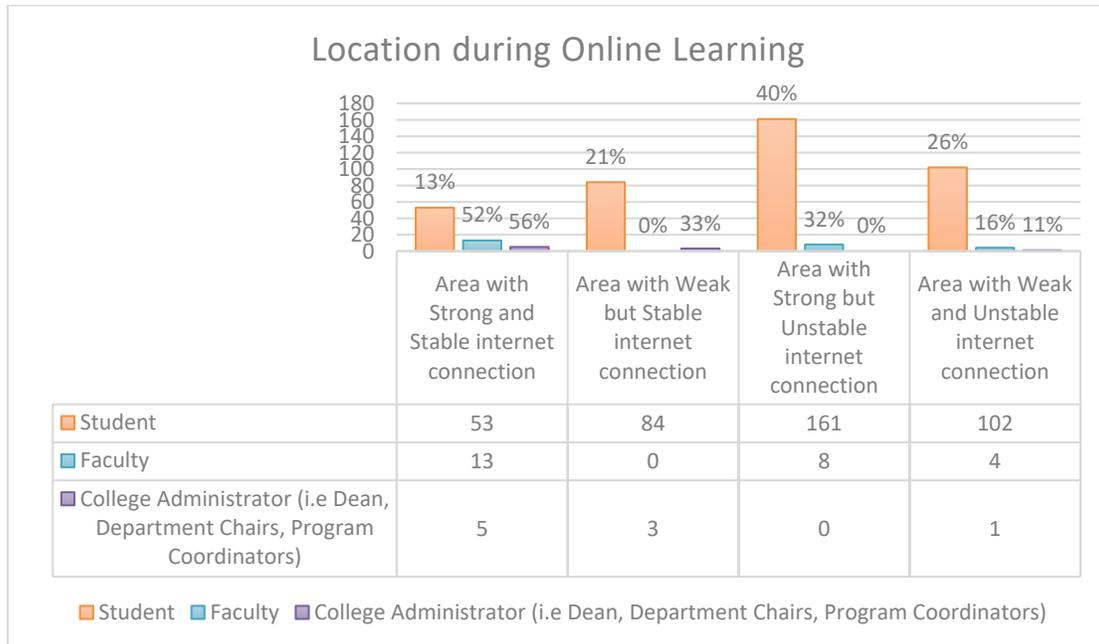


Table 6 shows the online learning profile of the respondents in terms of location during online learning. Data show that 5 or 56% of the college administrators stay in an area with strong and stable internet connections. As designated college administrators, a strong and stable internet connection is needed to perform their tasks. Likewise with the faculty; 13 or 52% stay in an area with a strong and stable internet connection. As they work on the web, strong and stable internet connection a must to respond to the demand for online learning.

On the other hand, 161 or 40% of the students stay in an area with a strong but unstable internet connection. On the contrary, no one among the college administrators and faculty stay in an area with a strong but unstable internet connection. Lastly, only 53 or 13% of the students stay in areas with strong and stable internet connections. These are students living in near cellular sites.

Table 7
Perception of the Students, Faculty, and CBEA Administrators on the Dimensions Affecting the Quality of Online Learning Relative to Administrative Support

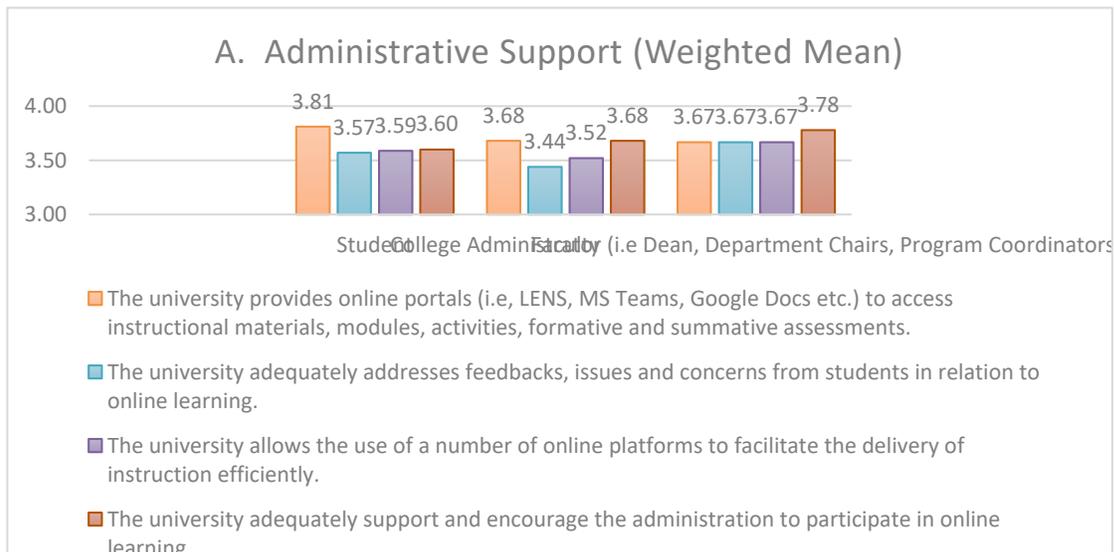


Table 7 shows the perception of respondents relative to administrative support. The item on "The university provides online portals to access institutional materials, modules, activities, formative and summative assessments" has the highest weighted mean of 3.81, very important for the students and 3.68 or very important for the faculty. This means that online portals, provided by the university, is essential for the students and faculty. LENS performs many functions, like allowing the students to access all the information they need in online learning provided by the faculty. In contrast, the item "The university adequately addresses feedbacks, issues, and concern from students about online learning" has the lowest weighted mean for the respondents but still has a descriptive scale of very important. 3.57 for students, 3.44 for faculty, and 3.67 for college administrators. This implies that the university has open communication channels with students, allowing them to share their issues and concerns about online learning.

Table 8
Perception of the Students, Faculty, and CBEA Administrators on the Dimensions Affecting the Quality of Online Learning Relative to Course Content

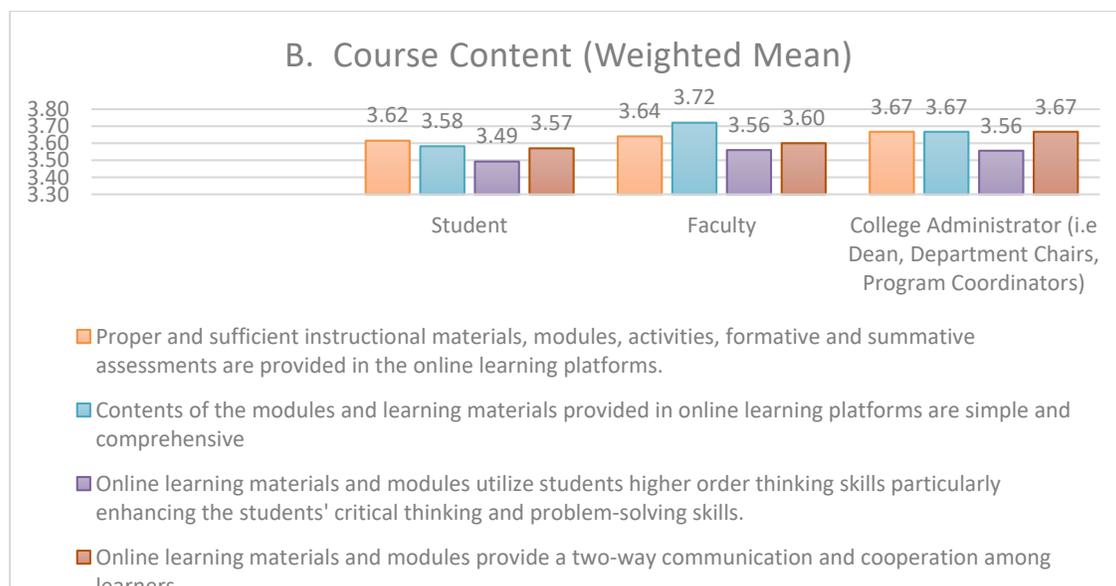


Table 8 shows the perception of the respondents relative to course content. For the students, the item on "Proper and sufficient instructional materials, modules, activities, formative and summative assessments are provided in the online learning platforms" has

the highest weighted mean of 3.62, very important. Since instructional materials are used to facilitate students' learning and monitor the assimilation of information through various assessments, the respondents find this item very important. For the faculty and college administrators, the item on "Contents of the modules and learning materials provided in online learning platforms are simple and comprehensive" has the highest weighted mean of 3.73, very important for faculty and 3.67 or very important for college administrators. This ensure the students better learning and understanding of the contents of the modules and learning materials. On the other hand, the item "Online learning materials and modules utilize students' higher-order thinking skills particularly enhancing the students' critical thinking and problem-solving skills" has the lowest weighted mean.

Table 9
Perception of the Students, Faculty, and CBEA Administrators on the Dimensions Affecting the Quality of Online Learning Relative to Course Design

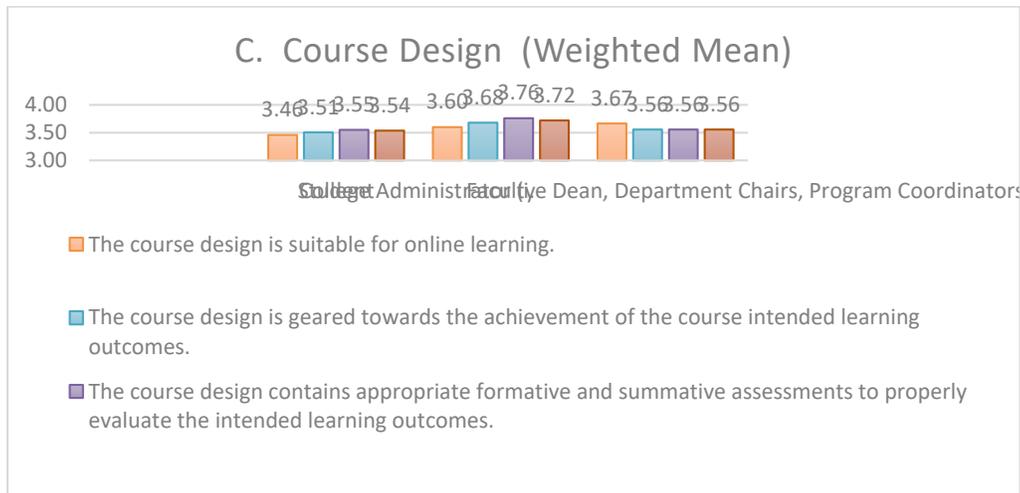


Table 9 shows the perception of the respondents relative to course design. As shown in the above table, the item "The course design contains appropriate formative and summative assessments to evaluate the intended learning outcomes properly" has the highest weighted mean for the two groups of respondents, students weighted mean is 3.55, very important and 3.76, very important for faculty. This indicates that faculty, as agreed by the students and college administrators, use assessments to evaluate students' learning. The item "The course design is suitable for online learning" has the lowest weighted mean of 3.46, very important for students and 3.60, very important for faculty. This shows that the course design is suitable for online learning.

Table 10
Perception of the Students, Faculty, and CBEA Administrators on the Dimensions Affecting the Quality of online Learning Relative to Social Support

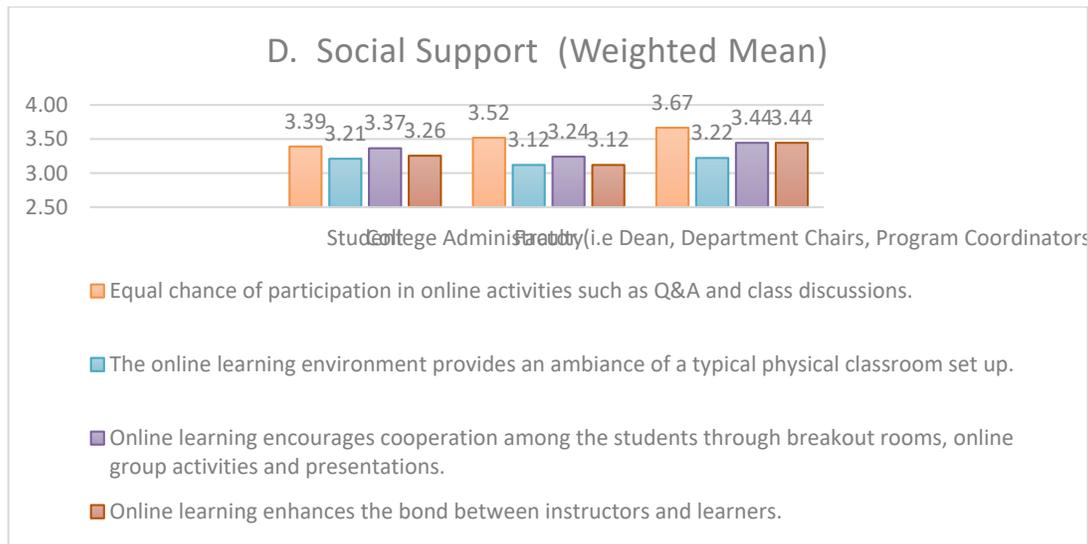


Table 10 shows the decision-making perception of the three groups of respondents relative to social support. The item “Equal chance of participation in online activities such as Q&A and class discussions” has the highest weighted mean for the three groups of respondents. 3.39 or very important for students, 3.52 or very important for faculty, and 3.67 or very important for college administrators. This explains the value of promoting an equitable classroom environment so all students can participate, and when every student has the recognition they need, the entire classroom thrives. On the contrary, the item "The online learning environment provides an ambiance of a typical physical classroom set up" has the lowest weighted mean for the three groups of respondents. 3.21 or important for students, 3.12 or important for faculty, and 3.22 or important for college administrators.

Table 11
Perception of the Students, Faculty, and CBEA Administrators on the Dimensions Affecting the Quality of Online Learning Relative to Technical Support

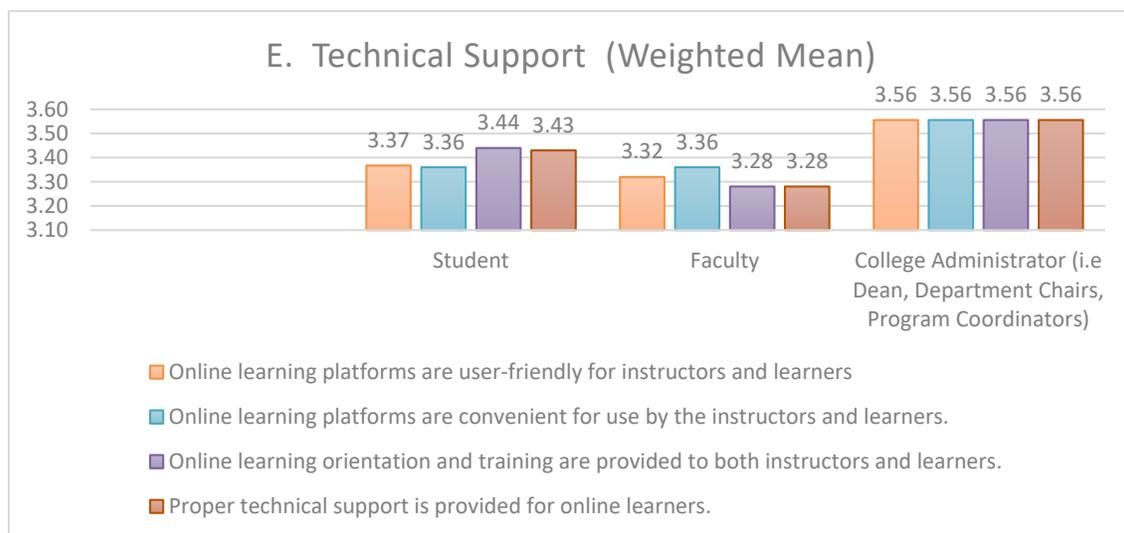


Table 11 shows the perception of the three groups of respondents relative to technical support. The item "online learning orientation and training are provided to both instructors and learners" has the highest weighted mean, 3.44, very important as perceived by the students. This explains that the university prepares both the instructors and students in the transition from face-to-face to online learning. Training workshops were conducted for them to understand how the online university platform (LENS) works. Concerning the use of LENS, the item "online learning platforms are convenient for use by the instructors and learners" has the highest weighted mean of 3.36 or very important as perceived by the faculty.

On the other hand, college administrators perceived that the following items are equally very important with a weighted mean of 3.56: "online learning platforms are user-friendly for instructors and learners", "online learning platforms are convenient for use by the instructors and learners", online learning orientation and training are provided to both instructors and learners" and "proper technical support is provided for online learners". The revolution of online education has changed the concept of traditional education or face-to-face classes radically. The Cagayan State University ensures that its people have access through its online platform (LENS) to a quality education whenever and wherever they want. Hence, the above data. Furthermore, The item "online learning platforms are convenient for the instructors and learners" has the lowest weighted mean of 3.36, very important as perceived by the students and faculty. Although it has the lowest weighted mean, this group of respondents still believe that online platform convenient for use may result in a better online learning experience is very important.

Table 12
Perception of the Students, Faculty, and CBEA Administrators on the Dimensions Affecting the Quality of Online Learning Relative to Instructor Characteristics

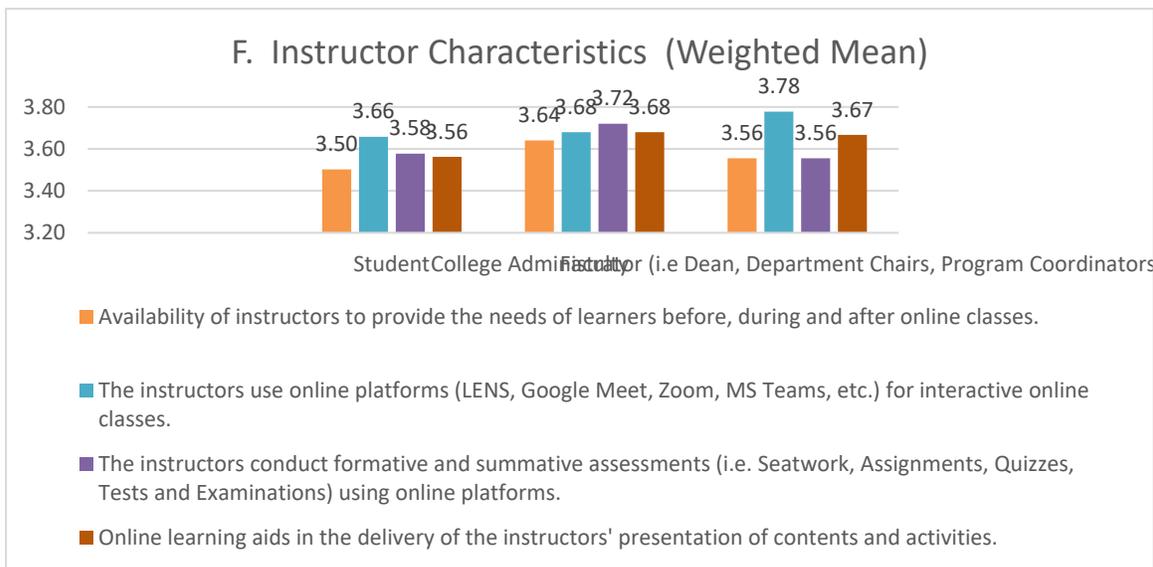


Table 12 shows the perception of the three groups of respondents relative to instructors' characteristics. The students perceived that "the instructors use online platforms for interactive online classes" is very important with 3.66. This manifests that students' needs are met by providing an online portal. In the case of faculty, the item "the instructors conduct formative and summative assessments using online platforms" has weighted mean of 3.72, very important because instructors adapt the demand of using online platforms in giving activities and assessments in their online classes. The college administrators and students, perceived the item "the instructors use online platforms for interactive online classes" very important with a weighted mean of 3.78. This is a manifestation that the college administrators support the students and faculty by embracing new challenges and using technological apps in online classes. The lowest weighted mean is the item on "availability of instructors to provide the needs of learners before, during and after online classes," with 3.50, very important for the students, 3.64 or very important for the faculty, and 3.56 or very important for the college administrators. Although learning is accessible through different online platforms, the respondents still do not find it engaging compared to the traditional face-to-face classroom set-up.

Table 13
Perception of the Students, Faculty, and CBEA Administrators on the Dimensions Affecting the Quality of Online Learning Relative to Learner Characteristics

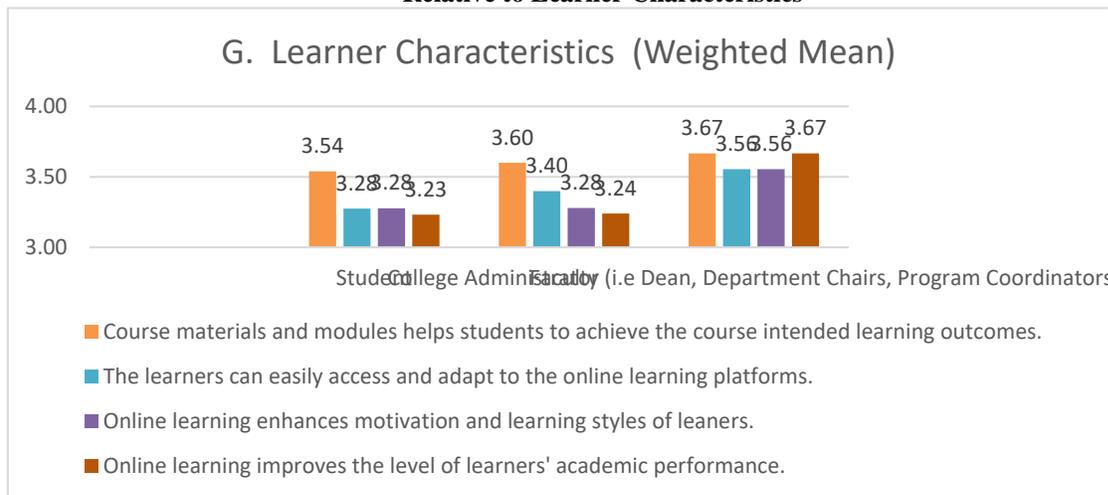


Table 13 shows the perception of the respondents relative to learner characteristics. The item on the "course materials and modules help students achieve the course intended learning outcomes" has the highest mean for the three groups of respondents. 3.54, very important for the students, 3.60, very important for the faculty, and 3.67, very important for the college administrators. This shows that instructional learning materials provided to the students are suited to facilitate learning and to attain the course learning goals. On the other hand, the item "online learning improves the level of learners' academic performance" has the lowest weighted mean of 3.23, important for students and 3.24 or very important for the faculty. Although online learning makes teaching-learning possible amidst pandemic, still a two-way interaction or traditional classroom setup is preferred. It allows instructors and students to connect and collaborate physically to improve students' academic performance. Lastly, the "the learners can easily access and adapt to the online learning platforms has the lowest weighted mean of 3.56. This is in connection to the location of respondents during online class for most of them reside in remote areas.

Table 14

Summary of the Test of Significant Difference of the Perception of Students, Faculty and College Administrators on the Dimensions Affecting the Quality of Online Learning

ANOVA and Tukey - Kramer Multiple Comparison test			
Dimension Affecting the Quality of Online Learning	F - ratio	P-Value	Decision @ (α=0.05)
A. Administrative Support	1.3802	0.30005	Accept Ho
B. Course Content	1.9492	0.19801	Accept Ho
C. Course Design	9.9491	0.00525	Reject Ho
D. Social Support	1.5247	0.26899	Accept Ho
E. Technical Support	61.4043	0.00001	Reject Ho
F. Instructor Characteristics	2.056	0.1839	Accept Ho
G. Learner Characteristics	5.5071	0.02742	Reject Ho,

Table 14 presents the summary of the test of difference on the perception of the respondents on the dimensions affecting the quality of online learning. As reflected, the four dimensions accepted the null hypothesis, administrative support, course content, social support and instructors' characteristics with the P-value of 0.3,0.19,0.26,0.18 respectively. The probability of these dimensions is greater than the alpha level of significance; thus, the null hypothesis is accepted. On the other hand, the three dimensions rejected the null hypothesis; course design, technical support and learner's characteristics with the P-value of 0.00525, 0.00001, and 0.02742 respectively. The probability is less than the alpha level of significance. Hence, the alternative hypothesis was accepted.

Table 15

Post-Hoc Analysis for the Course Content Dimension

Tukey-Kramer Multiple-Comparison Test

Response: Student, Faculty, College Administrator

Term A:

Alpha=0.050 Error Term=S(A) DF=9 MSE=0.003108333 Critical Value=3.9480

Different From

Group	Count	Mean	Groups
Student	4	3.515	Faculty
Faculty	4	3.69	Student
College Administrator	4	3.5875	

Table 15 presents the post-hoc analysis for the course content dimension. The students computed P-Value is 0.00416 when compared to the perception of the faculty respondents has a significant difference. Since the P-value is less than the alpha level of significance, it shows that the perceptions of the two groups of respondents are significantly different. However, for the college administrators, the computed P-Value is 0.21176 compared to students' perception and a P-Value of 0.06739 when compared to the perception of faculty respondents. Since both P-Values are greater than the alpha level of significance of 0.05, it implies that the college administrators' perception of the students and faculty is not significantly different. The various perceptions of the respondents can be attributed to the following reasons: The college administrator's function is to craft and implement the college and the university policies, a reason why this group of respondents' perception has no significant difference to the perception of the faculty and students. On the other hand, these policies will be the benchmark of the faculty in the delivery of the course content to be presented to the students. Furthermore, the learners have their understanding and appreciation when it comes to delivering the course content. Thus, the perceptions of the faculty and students are significantly different.

Table 16

Post-Hoc Analysis for the Technical Support Dimension

Tukey-Kramer Multiple-Comparison Test

Response: Student, Faculty, College Administrator

Term A:

Alpha=0.050 Error Term=S(A) DF=9 MSE=0.001044444 Critical Value=3.9480

Different From

Group	Count	Mean	Groups
Student	4	3.4	Faculty, College Administrator
Faculty	4	3.31	Student, College Administrator
College Administrator	4	3.56	Student, Faculty

Table 16 presents the post-hoc analysis for the technical support dimension. The students computed P-Value is 0.00861 when compared to the perception of the faculty respondents and a P-Value of 0.00016 when compared to the college administrators' perception. Furthermore, when the perception of the college administrators is compared to the perception of the faculty, it results in a P-Value of 0. Since the computed P-Values of the respondents are all less than the alpha level of significance of 0.05, the perceptions of the three groups of respondents are significantly different from each other. This explains that each respondent has different needs when it comes to technical support.

Table 17

Post-Hoc Analysis for the Learner Characteristics Dimension

Tukey-Kramer Multiple-Comparison Test

Response: Student, Faculty, College Administrator

Term A:

Alpha=0.050 Error Term=S(A) DF=9 MSE=0.01661944 Critical Value=3.9480

Group	Count	Mean	Different From Groups
Student	4	3.3325	College Administrator
Faculty	4	3.38	
College Administrator	4	3.615	Student

Table 17 presents the post-hoc analysis for the learner characteristics dimension. The students computed P-Value is 0.03097 is significantly different when compared to the perception of the college administrators. However, for the faculty, when compared to the students' perception, the computed P-Value is 0.85197. On the other hand, the P-Value of faculty is 0.06974 compared to the college administrators' perception. Since both P-Values are greater than the alpha level of significance of 0.05, it implies that the perception of the faculty compared to the perceptions of the students and college administrators has no significant difference. This can be attributed to the fact that as designated officials, college administrators have no direct supervision with the students since they need to perform administrative functions, unlike the faculty members wherein they meet their students regularly through online learning. Furthermore, the faculty reports the academic prowess of their students to the college administrators. Hence, the above data.

Table 18

Significant relationship in the perception of respondents on the dimensions affecting the quality of online learning when grouped according to administrative support

	Source of Internet Connection			Primary Gadget Used for Online Learning			Internet Connection Speed used in Online Learning			Location during Online Learning		
	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)
The university provides online portals (i.e. LENS, MS Teams, Google Docs etc.) to access instructional materials, modules, activities, formative and summative assessments.	0.5467	0.8469	0.1490	0.1866	0.5961	0.0433	0.2842	0.5360	0.6052	0.2635	0.1690	0.1207
The university adequately addresses feedbacks, issues and concerns from students in relation to online learning.	0.6727	0.2920	0.3389	0.1699	0.4725	0.0433	0.6759	0.2775	0.6052	0.3433	0.0897	0.1207
The university allows the use of a number of online platforms to facilitate the delivery of instruction efficiently.	0.1717	0.6131	0.6351	0.3381	0.9694	0.1168	0.5248	0.4151	0.5819	0.8658	0.1235	0.0941
The university adequately support and encourage the administration to participate in online learning.	0.7053	0.8518	0.2460	0.4460	0.5961	0.4635	0.1881	0.7475	0.4227	0.2596	0.6552	0.2460

Table 18 presents the significant relationship of the respondents' perception on the dimensions affecting the quality of online learning when grouped according to administrative support. It shows that this dimension has no significant relationship when the respondents are grouped according to "source of internet connection"; "internet connection speed used in online learning," and "location during online learning." Since the likelihood ratio computed is greater than the alpha level of significance, 0.05, the null hypothesis is accepted. However, for the online profile variable "primary gadget used in online learning," the students and faculty's computed likelihood ratio resulted in the acceptance of the null hypothesis with less than the alpha level of significance.

The items on "the university allows the use of several online platforms to facilitate the delivery of instruction efficiently" and "the university adequately supports and encourages the administration support to participate in online learning" have no significant relationship. For college administrators, the items on "the university provides online access to instructional materials, modules, activities, formative and summative assessments" and "the university adequately addresses feedbacks, issues and concerns from students in relation to online learning" have significant relationship. This can be attributed to the academic and administrative functions of the college administrators requiring them to have gadgets capable of performing multiple tasks simultaneously.

Table 19

Significant relationship in the perception of respondents on the dimensions affecting the quality of online learning when grouped according to course content

Pearson-Chi Square/Likelihood Ratio	Source of Internet Connection			Primary Gadget Used for Online Learning			Internet Connection Speed used in Online Learning			Location during Online Learning		
	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)
B. Course Content												
Proper and sufficient instructional materials, modules, activities, formative and summative assessments are provided in the online learning platforms.	0.1105	0.1248	0.6351	0.1105	0.2283	0.1168	0.1774	0.2928	0.5819	0.6377	0.1690	0.0941
Contents of the modules and learning materials provided in online learning platforms are simple and comprehensive	0.5488	0.4027	0.3389	0.5488	0.7548	0.0433	0.0616	0.6705	0.6052	0.4358	0.0897	0.1207
Online learning materials and modules utilize students higher order thinking skills particularly enhancing the students' critical thinking and problem-solving skills.	0.3883	0.8247	0.3165	0.3883	0.0600	0.0433	0.2183	0.5987	0.4490	0.6260	0.1235	0.0735
Online learning materials and modules provide a two-way communication and cooperation among learners.	0.0883	0.2984	0.6351	0.0883	0.5596	0.1168	0.6377	0.7459	0.5819	0.8409	0.6552	0.0941

Table 19 presents the significant relationship of respondents' perception on the dimension affecting the quality of online learning when grouped according to course content. The following online profile variables have no significant relationship; source of internet connection, internet connection speed, used in online learning, and location during online learning since the likelihood ratio computed is greater than 0.05 alpha level of significance. In like manner, the online profile variable on the primary gadget used for online learning, the students and faculty respondents show no significant relationship, also with the college administrators. The items "proper and sufficient instructional material, modules, activities, formative and summative assessments are provided in the online learning platforms" and "online learning materials and modules provide a two-way communication and cooperation among learners" have no significant relationship. In contrast, items on "contents of the modules and learning materials provided in online learning platforms are simple and comprehensive" and "online learning materials and modules utilize students higher-order thinking skills particularly enhancing the student's critical thinking and problem-solving skills" have a significant relationship. Since the college administrators are particular with the quality of instructional materials used by instructors in their online classes, they need to have a primary gadget that will allow them to provide prompt feedback related to learning materials, modules, and the content of the course syllabi. They need to ensure that these will enable the students to use their higher-order thinking skills as it is one of the 21st-century components students must develop.

Table 20

Significant relationship in the perception of respondents on the dimensions affecting the quality of online learning when grouped according to course design

Pearson-Chi Square/Likelihood Ratio	Source of Internet Connection			Primary Gadget Used for Online Learning			Internet Connection Speed used in Online Learning			Location during Online Learning		
	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)
C. Course Design												
The course design is suitable for online learning.	0.0175	0.7967	0.6351	0.0388	0.6416	0.1168	0.6093	0.1760	0.5819	0.0783	0.1203	0.0941
The course design is geared towards the achievement of the course intended learning outcomes.	0.1180	0.6829	0.9560	0.1687	0.8533	0.1821	0.3149	0.4942	0.1308	0.3313	0.0782	0.4033
The course design contains appropriate formative and summative assessments to properly evaluate the intended learning outcomes.	0.7797	0.8167	0.9560	0.1177	0.3185	0.1821	0.4489	0.7102	0.1308	0.9865	0.5200	0.4033
The course design enables the instructor to record the results of the various assessments.	0.1777	0.4027	0.9560	0.0831	0.2952	0.1821	0.3472	0.3242	0.1308	0.8958	0.5200	0.4033

Table 20 presents the significant relationship of respondents' perception on the dimension affecting the quality of online learning when grouped according to course design. As presented, the four online profile variables of the three groups of respondents have no significant relationship to the dimension of course design. However, for the student respondents, the online profile variables along "source of internet connection" and "primary gadget used for online learning" show a significant relationship for the item "the course design is suitable for online learning." The data explains that the students' internet connection and the gadget used can affect the quality of online learning. This is in relation to the sudden shift of traditional education to online learning.

Table 21

Significant relationship in the perception of respondents on the dimensions affecting the quality of online learning when grouped according to social support

Pearson-Chi Square/Likelihood Ratio	Source of Internet Connection			Primary Gadget Used for Online Learning			Internet Connection Speed used in Online Learning			Location during Online Learning		
	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)
D. Social Support												
Equal chance of participation in online activities such as Q&A and class discussions.	0.9725	0.4943	0.6351	0.3505	0.5148	0.1168	0.6515	0.1503	0.0915	0.1080	0.5750	0.2679
The online learning environment provides an ambiance of a typical physical classroom set up.	0.3064	0.0228	0.8656	0.6551	0.5125	0.4106	0.1200	0.1605	0.3378	0.5315	0.0984	0.5577
Online learning encourages cooperation among the students through breakout rooms, online group activities and presentations.	0.8772	0.2349	0.2390	0.6125	0.4956	0.2588	0.0663	0.3381	0.1308	0.5685	0.4150	0.4033
Online learning enhances the bond between instructors and learners.	0.3850	0.0772	0.2390	0.5167	0.6412	0.2588	0.6852	0.0095	0.1308	0.9997	0.4536	0.4033

Table 21 presents the significant relationship in respondents' perception of the dimension affecting the quality of online learning when grouped according to social support. As reflected in the above table, The three (3) groups of respondents do not have a significant relationship with the dimension of social support, except for the faculty respondents' source of internet connection and internet connection speed used in online learning. These two online profiles show a significant relationship to the dimension of social support, the source of internet connection of the faculty respondents has a significant relationship to "the online learning environment provides an ambiance of a typical classroom set up," this explains that the source of internet connection affects the online learning environment, it is believed that the physical classroom set up that the faculty intended to provide for the online class can be affected by the source of internet connection. In connection to this, the internet connection speed used in online learning has a significant relationship to the item "online learning enhances the bond between instructors and learners" this is because the online portals used by instructors and students meet not only the learning needs of the students but also it enhances their teacher-student relationship.

Table 22

Significant relationship in the perception of respondents on the dimensions affecting the quality of online learning when grouped according to technical support

Pearson-Chi Square/Likelihood Ratio	Source of Internet Connection			Primary Gadget Used for Online Learning			Internet Connection Speed used in Online Learning			Location during Online Learning		
	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)
E. Technical Support												
Online learning platforms are user-friendly for instructors and learners	0.2673	0.3783	0.9560	0.5238	0.8224	0.1821	0.8755	0.0435	0.1308	0.2125	0.8696	0.4033
Online learning platforms are convenient for use by the instructors and learners.	0.2247	0.1270	0.9560	0.4612	0.0639	0.1821	0.7700	0.5910	0.1308	0.9063	0.2899	0.4033
Online learning orientation and training are provided to both instructors and learners.	0.5615	0.2415	0.9560	0.2115	0.9076	0.1821	0.4885	0.5004	0.1308	0.9535	0.1247	0.4033
Proper technical support is provided for online learners.	0.8704	0.5095	0.9560	0.6056	0.9486	0.1821	0.2684	0.2997	0.1308	0.6699	0.5155	0.4033

Table 22 presents the significant relationship in respondents' perception of the dimension affecting the quality of online learning when grouped according to technical support. As shown in the above figure, only the internet connection speed used in online learning has a significant relationship to the item "online learning platforms are user-friendly for instructors and learners" for the faculty respondents. This implies that the internet connection speed used by the faculty respondents affects how they use online learning platforms. Since a number of faculty members have used traditional instructional materials for an extended period, such as ppt, visual aids, etc., the short time of using these platforms doesn't allow them to have the knowledge and technical skills to utilize them efficiently. On the other hand, the online learning profile of the three (3) respondents shows no significant relationship to the dimension of technical support since the likelihood ratio computed is above the alpha level of significance of 0.05.

Table 23

Significant relationship in the perception of respondents on the dimensions affecting the quality of online learning when grouped according to instructor's characteristics

Pearson-Chi Square/Likelihood Ratio	Source of Internet Connection			Primary Gadget Used for Online Learning			Internet Connection Speed used in Online Learning			Location during Online Learning		
	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)
F. Instructor Characteristics												
Availability of instructors to provide the needs of learners before, during and after online classes.	0.6589	0.6842	0.0597	0.0517	0.9133	0.1821	0.4055	0.8601	0.4133	0.9199	0.5964	0.4033
The instructors use online platforms (LENS, Google Meet, Zoom, MS Teams, etc.) for interactive online classes.	0.7239	0.9459	0.4152	0.2857	0.8533	0.0611	0.4885	0.8935	0.6241	0.1960	0.4255	0.1038
The instructors conduct formative and summative assessments (i.e. Seatwork, Assignments, Quizzes, Tests and Examinations) using online platforms.	0.2994	0.7237	0.9560	0.0119	0.4981	0.1821	0.3452	0.5147	0.4133	0.7863	0.2350	0.0597
Online learning aids in the delivery of the instructors' presentation of contents and activities.	0.2035	0.6829	0.6351	0.0594	0.8533	0.1168	0.7839	0.8935	0.5819	0.3384	0.4255	0.0941

Table 23 presents the significant relationship in respondents' perception on the dimension affecting the quality of online learning when grouped according to instructor characteristics. For the student, the primary gadget used for online learning has a significant relationship to the item "the instructors conduct formative and summative assessments using online platforms." In as much as the faculty wishes to conduct various assessments to measure the students' higher-order thinking skills. The gadgets features used by the students are not capable of performing some of the evaluations given by the faculty. Hence, assessment results are affected by it.

Table 24

Significant relationship in the perception of respondents on the dimensions affecting the quality of online learning when grouped according to learner characteristics

Pearson-Chi Square/Likelihood Ratio	Source of Internet Connection			Primary Gadget Used for Online Learning			Internet Connection Speed used in Online Learning			Location during Online Learning		
	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)	Student	Faculty	College Administrator (i.e. Dean, Department Chairs, Program Coordinators)
G. Learner Characteristics												
Course materials and modules helps students to achieve the course intended learning outcomes.	0.1346	0.7248	0.6351	0.1430	0.5596	0.1168	0.5918	0.8430	0.5819	0.3120	0.7327	0.0941
The learners can easily access and adapt to the online learning platforms.	0.1826	0.6648	0.3165	0.4142	0.7012	0.1732	0.7992	0.2521	0.8087	0.3120	0.8624	0.2167
Online learning enhances motivation and learning styles of learners.	0.6715	0.6278	0.3165	0.3412	0.8669	0.1732	0.5991	0.1593	0.8087	0.8535	0.6017	0.2167
Online learning improves the level of learners' academic performance.	0.6715	0.6334	0.6351	0.0745	0.9245	0.1168	0.0901	0.1311	0.5819	0.2874	0.2991	0.0941

Table 24 presents the significant relationship of respondents' perception on the dimension affecting the quality of online learning when grouped according to learner characteristics. As reflected, all online learning profiles of the respondents exhibit no significant relationship to the dimension "learner characteristics". This explains that the items along learner characteristics are independent of the online learning profile variables of the respondents.

III. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents the summary, conclusions, and recommendations based on the results of the study.

SUMMARY OF FINDINGS:

1. Online learning profile of the respondents.

- 1.1. *Source of Internet Connection* - 5 or 56% college administrators, 15 or 60% of faculty are using fiber, and 317 or 79% of students favor using mobile/broadband data. On the contrary, the use of satellite is the least preferred source of internet connection by the three groups of respondents.
- 1.2. *Primary Gadget Used for Online Learning* - 8 or 80% of the college administrators and 20 or 80% of the faculty use laptops in online learning. However, 364 or 91% of the students are using smartphones. No one uses an iPad/tablet as a primary gadget for online learning for the faculty and students.
- 1.3. *Internet Connection Speed Used in Online Learning* - 5 or 56% of the college administrators have above 15 Mbps up to 25 Mbps internet connection speed, same with the 8 or 32% of the faculty respondents and majority of the students, 192 or of them have 5 Mbps and below.
- 1.4. *Location during Online Learning* - 5 or 56% of the college administrators stays in an area with a strong and stable internet connection. The same is true in the case of the faculty, 13 or 52% also remain in a place with strong and stable internet connection. On the other hand, 161 or 40% students stay in an area with a strong but unstable internet connection.

2. Perception of the students, faculty, and college administrators on the dimensions affecting the quality of online learning

2.1 *Administrative Support* - The item on "The university provides online portals (i.e., LENS, MS Teams, Google Docs, etc.) to access institutional materials, modules, activities, formative and summative assessments" has the highest weighted mean of 3.81 with a descriptive scale of very important for the students and 3.68 or very important for the faculty. Moreover, 3.78 or very important is likewise given to the item "The university adequately support and encourage the administration to participate in online learning." In contrast, the item "The university adequately addresses feedbacks, issues, and concern from students in relation to online learning" has the lowest weighted mean for the three groups but still has a descriptive scale of very important.

2.2 *Course Content* - For the students, the item on "Proper and sufficient instructional materials, modules, activities, formative and summative assessments are provided in the online learning platforms," has the highest weighted mean of 3.62 or very important. For the faculty and college administrators, the item on "Contents of the modules and learning materials provided in online learning platforms are simple and comprehensive" has the highest weighted mean of 3.73 or very important for faculty and 3.67 or very important for college administrators. On the other hand, the item "Online learning materials and modules utilize students higher-order thinking skills particularly enhancing the students' critical thinking and problem-solving skills" has the lowest weighted mean.

2.3 *Course Design* - "The course design contains appropriate formative and summative assessments to evaluate the intended learning outcomes properly" has the highest weighted mean for the three (3) groups of respondents. In like manner, the item on "the course design suitable for online learning" has a weighted mean of 3.67 or very important as perceived by the college administrators. However, the item "The course design is suitable for online learning" has the lowest weighted mean of 3.46 or very important for students and 3.60 or very important for faculty. The item "The course design is geared towards achieving the course intended learning outcomes" has the lowest weighted mean of 3.56 or is very important.

2.4 *Social Support* - The item on "Equal chance of participation in online activities such as Q&A and class discussions" has the highest weighted mean for the three groups of respondents. 3.39 or very important for students, 3.52 or very important for faculty, and 3.67 or very important for college administrators. On the contrary, the item "The online learning environment provides an ambiance of a typical physical classroom set up" has the lowest weighted mean for the three groups of respondents.

2.5 *Technical Support* - The item on "online learning orientation and training are provided to both instructors and learners" has the highest weighted mean of 3.44, or very important as perceived by the students. The item on "online learning platforms are convenient for the instructors and learners" has the highest weighted mean of 3.36 or very important as perceived by the faculty. Furthermore, The item on "online learning platforms are convenient for use by the instructors and learners" has the lowest weighted mean of 3.36 or very important as perceived by the students and faculty.

2.6 *Instructor Characteristics* - The students perceived that "the instructors use online platforms (LENS, Google Meet, Zoom, MS Teams, etc.) for interactive online classes" is very important, with a weighted mean of 3.66. The same is true with the college administrators, with a weighted mean of 3.78 or very important. In the case of faculty, the item on "the instructors conduct formative and summative assessments (i.e. seat works, assignments, quizzes, tests and examinations) using online platforms" has a weighted mean of 3.72 or very important. The lowest weighted mean is the item on "availability of instructors to provide the needs of learners before, during and after online classes," with a weighted mean of 3.50 or very important for the students, 3.64 or very important for the faculty, and a weighted mean of 3.56 or very important for the college administrators.

2.7 *Learner Characteristics* - The item on the "course materials and modules help students to achieve the course intended learning outcomes" has the highest mean for the three groups of respondents. 3.54 for the students, 3.60, for the faculty, and 3.67 for the college administrators. On the other hand, the item "online learning improves the level of learners' academic performance" has the lowest weighted mean of 3.23 for students and 3.24 for faculty. Lastly, the item "the learners can easily access and adapt to the online learning platforms" has the lowest weighted mean of 3.56 or very important for college administrators.

3. Difference among the perception of students, faculty, and college administrators on the dimension affecting the quality of online learning.

The four (4) dimensions: *Administrative Support*, *Course Content*, *Social Support*, and *Instructor Characteristics*, accepted the null hypothesis that there is no significant difference among the perception of students, faculty, and college administrators because the probability is less than the alpha level of significance of 0.05. On the contrary, the three (3) dimensions: *Course Design*, *Technical Support*, and *Learner Characteristics*, rejected the null hypothesis since its probability is greater than the alpha level of significance of 0.05. Post-Hoc Analysis was used to determine the difference in the dimensions on *Course Design*, *Technical Support*, and *Learner Characteristics* since it rejected the null hypothesis.

4. Relationship in respondents' perception of the dimension affecting online learning quality when grouped according to their online learning profile.

The dimension on *administrative support* has no significant relationship when the respondents are grouped according to "source of internet connection"; "internet connection speed used in online learning," and "location during online learning." However, for the online profile variable "primary gadget used in online learning," the students and faculty's computed likelihood ratio resulted in the acceptance of the null hypothesis.

CONCLUSIONS:

Based on the results and findings of the study, the researchers conclude that:

1. Most of the college administrators and faculty favor fiber and mobile/broadband data for the students and laptops are used as primary gadgets for online learning
2. College administrators and faculty respondents have above 15 Mbps up to 25 Mbps to do their tasks better in online learning while students use internet connection speed of 5 Mbps and below because it is cheaper.
3. In order for college administrators and faculty to perform their tasks, they should stay in an area with a strong and stable internet connection.
4. Students and faculty respondents perceived online portals very important to access institutional materials, modules and assessments.
5. Faculty and college administrators, believe that the contents of the modules and learning materials offered in online learning platforms are comprehensive and straightforward as the students agree that sufficient instructional materials, activities and assessments are provided.
6. The course design contains appropriate assessments in evaluating the intended learning outcomes of the students.
7. Online learning environment provides an ambiance of a typical physical classroom.
8. Online learning orientation and training are important.
9. Students and college administrators perceived that using online platforms for interactive online classes is very important.
10. Course materials and modules help students achieve the course intended outcomes.

RECOMMENDATIONS:

Based on the above conclusions, the researchers highly recommend the following:

1. Since electronic technology is the portal used to access learning in online classes, internet service providers must improve the services they provide to their subscribers by making it more accessible and more cost-effective.
2. Students and parents should consider the importance of internet connection, a primary gadget used for online learning, the internet connection speed used in online learning, and location during online learning when it comes to the quality of online learning.
3. For the school administrators to improve technical support in the delivery of online learning and for the faculty to enhance their teaching strategies and come up with assessments that can adequately evaluate the online knowledge and experiences of the students.
4. The university must ensure that online portals like LENS meet the needs of the faculty and students in online learning. Faculty and students must adapt to changes promptly as the pandemic demands them to embrace new challenges and use various online platforms.
5. The *course content* dimension must facilitate learning through proper and sufficient instructional materials, modules, and the like to be provided by the CBEA faculty in the online learning platforms.
6. *Course design* must genuinely be suitable for online learning; it must consider the importance of achieving the course learning objectives.
7. Faculty members and college administrators are encouraged to devise ways to supplement these lapses to provide a suitable ambiance to facilitate learning.
8. The university needs to train the respondents in the use of technology and other online platforms.
9. Students must know and understand how to effectively adapt to online learning to improve their online learning experience. It is also suggested that students communicate with their instructors to clear doubts through online platforms, calls, or texts.

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