The Community of Inquiry Instructional Strategies Impact on Student Satisfaction on Remote Learning

Mary Gretchen F. Chaves

University of the Philippines Cebu, Cebu City, Philippines
https://orcid.org/0000-0001-8201-3558
Email Correspondence: mfchaves1@up.edu.ph

Abstract

The COVID-19 restrictions compelled institutions worldwide to transition into the remote teaching-learning modality abruptly. Studies evaluating the effectiveness of remote teaching and learning strategies are scant. With the recent shift to this new learning mode, little is known about the fulfillment of learning outcomes and student satisfaction. This research examines the impact of the teaching-learning course design and instructional strategies as implemented by this faculty researcher last school year 2020-2021. It intends to provide practical guidance for teachers aiming to evaluate the effectiveness of their remote teaching/strategies. The research is both quantitative (causal) and qualitative design. A total of 104 management students from a Philippine state university participated in an online survey. The quantitative investigation assessed the influence of the independent variables – the Community of Inquiry (CoI) presence strategies, course design, and instructional strategies on students' perceived learning and satisfaction, utilizing the CoI framework and adopting scales from online teaching.

Keywords: remote learning, online learning, Community of Inquiry (CoI), course design, instructional strategies, perceived learning, student satisfaction

1.0 Introduction

World over, government initiatives to control the spread of the COVID 19 have impacted the education system, inducing education institutions to transition into the emergency remote teaching modalities.

The University of the Philippines adopted the "remote learning" mode. As opposed to traditional face-to-face learning, the teachers and the students in remote education are located in different places. This study implemented remote teaching and learning as online virtual interactions (synchronous) and offline learning activities (asynchronous) through computer-mediated technologies. Then, just before the start of the school year, the faculty members underwent webinars for the pedagogical, technological, and legal requisites of remote teaching and learning.

Recent studies are scant on account of the unprecedented and sudden change to remote learning, particularly in evaluating the effectiveness of electronically mediated teaching and learning experiences among students. Little is known in terms of the impact of remote education on students' learning and satisfaction. After the first year of remote teaching and learning implementation, this faculty researcher sought to evaluate the effectiveness of the course design and instructional strategies of her classes, motivated by the assertion of Watson et al. (2017) on the necessity

of online educators to "effectively evaluate and enhance online teaching and learning..." (p. 421). The need to evaluate student engagement and learning has never been as pronounced in the face of the unexpected transition to remote teaching and learning. This faculty researcher aimed to assess how the course design and instructional strategies contributed to the students' learning and satisfaction.

This investigation intends to provide evidence on the effectiveness of pedagogy in remote learning "to understand best what works and does not and for whom" (World Bank, 2020, p.6). Education pundits maintain that the remote teaching and learning modalities are expected to continue even after the relaxation of Covid 19 restrictions. This study likewise seeks to contribute to the attainment of the United Nations' Sustainable Development Goal (SDG) #4 on Quality Education which espouses inclusive and equitable quality education and "promotes lifelong learning opportunities for all." (United Nations, 2021).

This evaluation of the influence of the course design and instructional strategies on the students' perceived learning and satisfaction probes into the extent to which students have learned in the course and their assessment of and satisfaction with the course design and instructional strategies. The overarching research objective is to investigate the influence of the course design and instructional strategies on the students' perceived learning and satisfaction, with the potential moderating effect of perceived learning on students' satisfaction. To examine such relationships, the study determined the students' self-reports: a) having achieved the learning objectives; b) assessments of the course design and instructional strategies; and c) satisfaction with the course design and instructional strategies.

Utilizing the framework of Community of Inquiry (Garrison et al., 1999), drawn from the COI instrument developed by Arbaugh et al. (2008), this study intends to inform educators on the impact of the CoI presence when deliberately integrated as learning strategies, on students' perceived learning, and satisfaction. This study adopted the scales from the instruments of Eom and Ashill (2016), Gray and DiLoreto (2016), and Watson et al. (2017). Their studies concentrated on measuring the effectiveness of online course design and instructional strategies and on perceived learning and student satisfaction

Dunlap and Lowenthal (2018) assert that "over the years, online educators have learned a great deal about what works and doesn't work when designing and facilitating online courses" (p. 79). According to Tanis (2020), the course should be carefully designed to promote "student engagement with faculty, peers and course content" (p.1) to be effective in an online teaching and learning environment. Hodges et al. (2020) recommend that when assessing students' success in online learning, the learning outcomes must be examined to determine whether the planned knowledge, skills, and attitudes have been achieved. For example, in their dissertation survey, Watson et al. (2017) asked the student participants, "What specific things would you like your online instructors to do to help you learn successfully?" The authors then presented the results of the Top Ten Instruction Strategies. According to the authors, "online course practitioners could use the study findings to enhance student engagement" (p. 426).

On the side of the educators, Dunlap and Lowenthal (2018) utilized crowdsourcing, emphasizing that this form of solicitation captures what the experienced online educators have "learned about designing and facilitating online courses—based on their experimentation, assessment, revision, and reflection" (p. 87). Dunlap and Lowenthal's analysis of the online educators' recommendations yielded four themes, namely, (a) supporting student success, (b) providing clarity and relevance through content structure and presentation, and (c) establishing the presence to encourage a supportive learning community, and

(d) becoming better prepared and more agile as an educator (p. 87).

The Community of Inquiry is a learning framework that facilitates a meaningful engagement in the online and computer-mediated teaching and learning modality (Castellanos-Reyes, 2020; Lowenthal & Dunlap, 2018; Patwardhan et al., 2020). Castellanos-Reyes (2020) portrays the CoI as a "collaborative-constructivist process model that describes the essential elements of a successful online higher education learning experience" (p. 557). Garrison et al. (1999) identify the CoI's three presences in their seminal work. They define the first presence, the social presence (SP), as "the projection of oneself as a real person in an online new environment." Garrison (2009) further describes SP as "the ability of participants to identify with the community (e. g., course of study), communicate purposefully in a trusting environment, and develop interpersonal relationships by way of projecting the personalities" (p. 352). SP "promotes peer-to-peer engagement and fosters positive and productive working experiences" (Miller et al., 2020, p. 3).

Garrison et al. (1999) describe the second presence, the cognitive presence (CP), as "the higher-order thinking process" and refer to it as "the extent to which the participants in any particular configuration of a community of inquiry can construct meaning through sustained communication" (p. 89). According to Stewart (2019), CP "exists when students learn due to their interaction with their peers and instructor. The learning they experience would not be possible without dialogue that prompts reflection and thus initiates the process of integration" (p. 39) and that "CP is only possible through a process of reflection and dialogue, which necessitates social presence" (p. 39).

Finally, Garrison et al. (1999) portray the third presence, the teaching presence (TP), as the "facilitator's role in promoting SP and CP to achieve the target learning outcomes" and refer to it as the "the design, facilitation, and direction of cognitive and social processes to realize personally meaningful and educationally worthwhile learning outcomes. The TP specifies "the goals of learning activities and puts students in situations where they are likely to develop sufficient social presence to support cognitive presence" (Stewart, 2019, p. 39). The interaction of these independent presences is regarded as "enhancing the quality of education and learning outcomes" (Patwardhan et al., 2020, p. 95). Figure 1 illustrates the Community of Inquiry model.

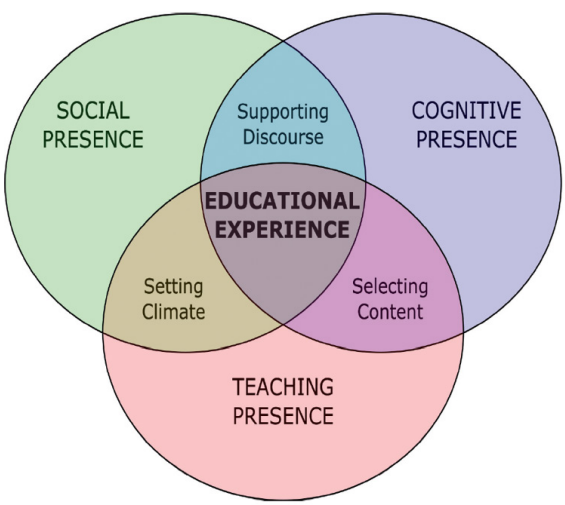

Figure 1. *The Community of Inquiry (CoI) Model*

Caskurlu et al. (2020) utilized the CoI framework in a qualitative study investigating the factors affecting students' online experiences. Patwardhan et al. (2020) examined the applicability of the CoI framework in remote learning to predict student satisfaction. The authors tested how course design variables have mediation effects on the relationship between the CoI and student satisfaction. Student satisfaction is defined by So and Brush (2008) as "an effective learning outcome indicating the degree of learner reaction to values and quality of learning, and motivation for learning" (p. 232).

In a study assessing the satisfaction levels of students in online learning, Lee (2014) maintains that course design factors like "clear assignment rubrics and guidelines are important to make online learning satisfactory" (p. 125) and concludes that "student satisfaction level is related to professor's or (course instructor's) knowledge of materials" (p. 125). In another study examining the students' satisfaction and perceived learning outcomes in online learning in a university context, Eom and Ashill (2016) report how "instructor-student dialogue, student-student dialogue, instructor and course design significantly affect student satisfaction and learning outcomes" (p.185). Still, in another study, Patwardhan et al. (2020) present the findings that teaching presence is the primary determinant of satisfaction and that the results "implied partial mediation by course design on the relationship between CoI elements and satisfaction" (p. 94).

Similarly, Gray and DiLoreto (2016), investigating the influences of student engagement, student satisfaction, and perceived online learning, assert the importance of instructors in determining the extent of students' learning. According to the authors, "when students report that their learning is limited or minimal," it is the instructors' responsibility to "redesign online courses, improve instructional practices, and develop more effective assessment and evaluation tools" (p. 6).

To evaluate this study's objective, which is to investigate the influence of the course design and instructional strategies on the students' perceived learning and satisfaction, the investigations of the variables and their relationships are illustrated in the conceptual framework shown in Figure 2.

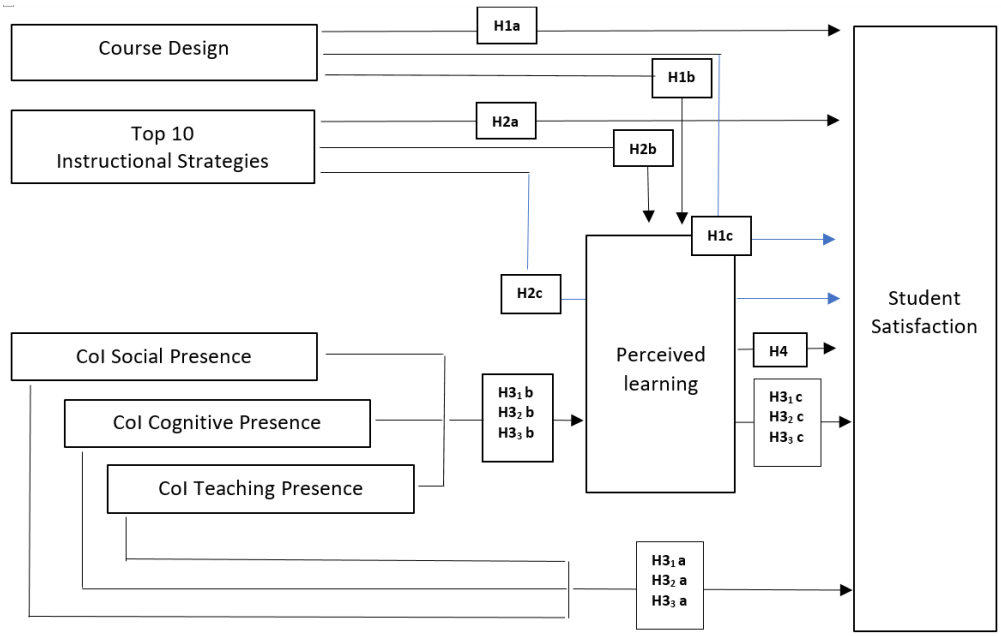

Figure 2. *Conceptual Framework*

The conceptual framework shows the endogenous variables perceived learning and student satisfaction, the exogenous variables, course design, top 10 instructional strategies, and the CoI presences (social, cognitive, and teaching). The objective of the study is to investigate the influence of the course design and instructional strategies on the students' perceived learning and satisfaction, with the potential moderating effect of perceived learning on students' satisfaction.

Other than the instructional strategies that are incorporated in the CoI framework, the Top 10 instructional strategies of Watson et al. (2017) and course design are tested on their impact on students' perceived learning and satisfaction, with the potential moderating effect of perceived learning on students' satisfaction. Thus, the following are the hypotheses:

H1a: Course Design affects Student Satisfaction

H1b: Course Design affects Perceived Learning

H1c: Perceived Learning moderates the relationship between Course Design and Student Satisfaction

H2a: Top 10 Instructional Strategies affect Student Satisfaction

H2b: Top 10 Instructional Strategies affect Perceived Learning

H2c: Perceived Learning moderates the relationship between Top 10 Instructional Strategies and Student Satisfaction

The instructional strategies of the Community of Inquiry framework along the three CoI presences are investigated in this study, to evaluate their impact on the students' perceived learning and satisfaction, with the potential moderating effect of perceived learning on students' satisfaction. Thus, the following hypotheses:

$H3_1a$: CoI (Social Presence) Instructional Strategies affect Student Satisfaction

$H3_1b$: CoI (Social Presence) Instructional Strategies affect Perceived Learning

$H3_1c$: Perceived Learning moderates the relationship between CoI (Social Presence) Instructional Strategies and Student Satisfaction

$H3_2a$: CoI (Cognitive Presence) Instructional Strategies affect Student Satisfaction

$H3_2b$: CoI (Cognitive Presence) Instructional Strategies affect Perceived Learning

$H3_2c$: Perceived Learning moderates the relationship between CoI (Cognitive Presence) Instructional Strategies and Student Satisfaction

$H3_3a$: CoI (Teacher Presence) Instructional Strategies affect Student Satisfaction

$H3_3b$: CoI (Teacher Presence) Instructional Strategies affect Perceived Learning

$H3_3c$: Perceived Learning moderates the relationship between CoI (Teacher Presence) Instructional Strategies and Student Satisfaction

Finally, also tested in the study is the influence of perceived learning on the students' satisfaction. Thus, the hypothesis:

H4: Perceived Learning affects Student Satisfaction

2.0 Methodology

The research is both quantitative and qualitative in design. Data were collected ex-post-facto from the student participants through an online survey. The descriptive method was used to summarize the scales of the students' responses. All scales were tested for internal consistency and validity; reliability analysis was done using Cronbach Alpha. The study's hypotheses were tested through partial least squares structural

equation modeling (PLS-SEM), investigating the relationships of the independent variables (course design, top 10 instructional strategies, CoI - social presence, CoI - cognitive presence, CoI - teaching presence) with the dependent variables (perceived learning and satisfaction). Factor loadings were tested to evaluate the convergent validity of the scales; significant correlations of the scale values were measured, which were necessary for the model fitting of the structural equation model. The PLS-SEM tests were performed using the SmartPLS software and were iterated until the indicators showed the model's acceptability.

Guided by the recommendation of Gray and DiLoreto (2016) that it is the instructors' responsibility to "redesign online courses, improve instructional practices, and develop the more effective assessment..." (p. 6), this study thus focused on the students of the courses handled by this faculty researcher. Data were collected in the middle of the first semester, the academic year 2021 – 2022. The sampling frame for data collection was the list of the students of the two courses during the first and second semesters of School Year 2020 – 2021. A total of 104 unique students participated in the survey, and their informed consent was obtained before their participation. This study was provided clearance from the university's Research Ethics Committee.

The survey instrument consisted of three sections. The first section contains the classification questions, the second section includes the scale items questions, and the third section contains the open-ended questions. The scale item questions constitute the core questions of the constructs being measured in the model (Figure 2). Finally, the study adopted the scale of the Community of Inquiry instrument of Arbaugh et al. (2008) with a total of 34 items (teacher presence, 13 items; social presence, 9 items; and cognitive presence, 12 items).

The study also adopted the Top Ten Online Instructional Strategies of Watson et al. (2017) and the Course Design and Structure subscales of Eom and Ashill (2016). Likewise, the study adopted the Perceived Learning and Student Satisfaction subscales of Gray and DiLoreto (2016). The student-participants were asked to rate on a six-point Likert scale the degrees of agreement/disagreement with the scale items (SD = Strongly Disagree; MD = Moderately Disagree; SD = Slightly Disagree; SA = Slightly Agree; MA = Moderately Agree; SA = Strongly Agree).

The following are the two (2) open-ended questions about the students' impressions of the remote learning course design and strategies as implemented:

1. Which specific aspect(s) of the Course A/Course B course design and learning strategies did you find the most important? Why?
2. Which specific aspect(s) of the Course A/Course B course design and learning strategies have contributed the most to your learning? Why?

The NVivo software was used to summarize the open-ended answers. The coding thematic analysis framework of Harding (2015) and Peel (2020) was used to analyze the open-ended responses.

3.0 Results and Discussion

Table 1 shows the Cronbach alpha values of all the variables having reached 0.7 and above. Cronbach's alpha was tested for internal consistency, where thresholds of reliability values between 0.70 and 0.90 are considered "satisfactory to good" (Hair et al., 2019). Hence, all statements in the survey instrument were considered acceptable for internal consistency.

Table 2 shows the strength of the "R square value" of the endogenous latent variables, perceived learning, and student satisfaction.

Table 1. *Reliability*

Construct	Cronbach Alpha
CoI - Cognitive Presence	0.913
CoI - Social Presence	0.889
CoI - Teacher Presence	0.873
Course Design	0.860
Top 10 Instructional Strategies	0.821
Perceived Learning	0.708
Student Satisfaction	0.854

Table 2. *Coefficient of determination (R^2)*

R-Square of the Endogenous Latent Variables

Construct	R^2	Result
Perceived Learning	0.756	strong
Student Satisfaction	0.733	strong

The R-Square statistics refer to the endogenous variable's variance as explained by the exogenous variable(s), indicating the extent of change in the dependent variable which can be accounted for by one or more independent variables (s). Threshold values of 0.25, 0.5, and 0.7 are often used to describe a weak, moderate, and strong coefficient of determination, respectively (Hair et al., 2016). The results in Table 3 show that the R-square value of *perceived learning (PL)* means that 75.6% of the change in PL can be explained by *course design (CD), social presence (SP), cognitive presence (CP), teacher presence (TP),* and *top 10 instructional strategies (TTOIS)*. Likewise. the table shows that the R-square value of *student satisfaction (SS)* means that 73.3% of the change in *SS* can be explained by *CD, SP, SP, TP, TTOIS, and PL*.

Table 3. *Significant individual path coefficients in the structural model*

Path	Original Sample (O)	Path Coefficient (t value)	p values	Result of the Hypothesis Test
Course Design → Student Satisfaction	0.172	1.205	0.229	H1a is not supported
Course Design → Perceived Learning	0.047	0.452	0.651	H1b is not supported
Course Design → Perceived Learning → Student Satisfaction	-0.101	0.629	0.530	H1c is not supported
Top 10 IS → Student Satisfaction	-0.017	0.105	0.917	H2a is not supported
Top 10 IS → Perceived Learning	0.197	1.632	0.103	H2b is not supported
Top 10 IS → Perceived Learning → Student Satisfaction	-0.192	0.985	0.325	H2c is not supported
Social Presence → Student Satisfaction	0.082	1.082	0.280	$H3_1$a is not supported
Social Presence → Perceived Learning	0.134	2.106	0.036	***$H3_1$b is supported***
Social Presence → Perceived Learning → Student Satisfaction	-0.011	0.085	0.932	$H3_1$c is not supported
Cognitive Presence → Student Satisfaction	-0.242	1.929	0.054	$H3_2$a is not supported
Cognitive Presence → Perceived Learning	0.210	2.265	0.024	***$H3_2$b is supported***
Cognitive Presence → Perceived Learning → Student Satisfaction	0.338	1.354	0.176	$H3_2$c is not supported
Teacher Presence → Student Satisfaction	0.218	1.097	0.273	$H3_3$a is not supported
Teacher Presence → Perceived Learning	0.411	3.668	0.000	***$H3_3$b is supported***
Teacher Presence → Perceived Learning → Student Satisfaction	-0.013	0.057	0.954	$H3_3$c is not supported
Perceived Learning → Student Satisfaction	0.649	3.600	0.000	***H4 is supported***

Figure 3 shows the structural model, while Table 3 summarizes the results of the individual path coefficients in the structural model after running the PLS SEM algorithm. The last column shows the conclusions of the hypotheses testing. The following paths with significant path coefficients support the respective hypotheses: ***(a) Social Presence→Perceived Learning; (b) Cognitive Presence→Perceived Learning; (c) Teacher Presence→Perceived Learning; (d) Perceived Learning→Student Satisfaction.***

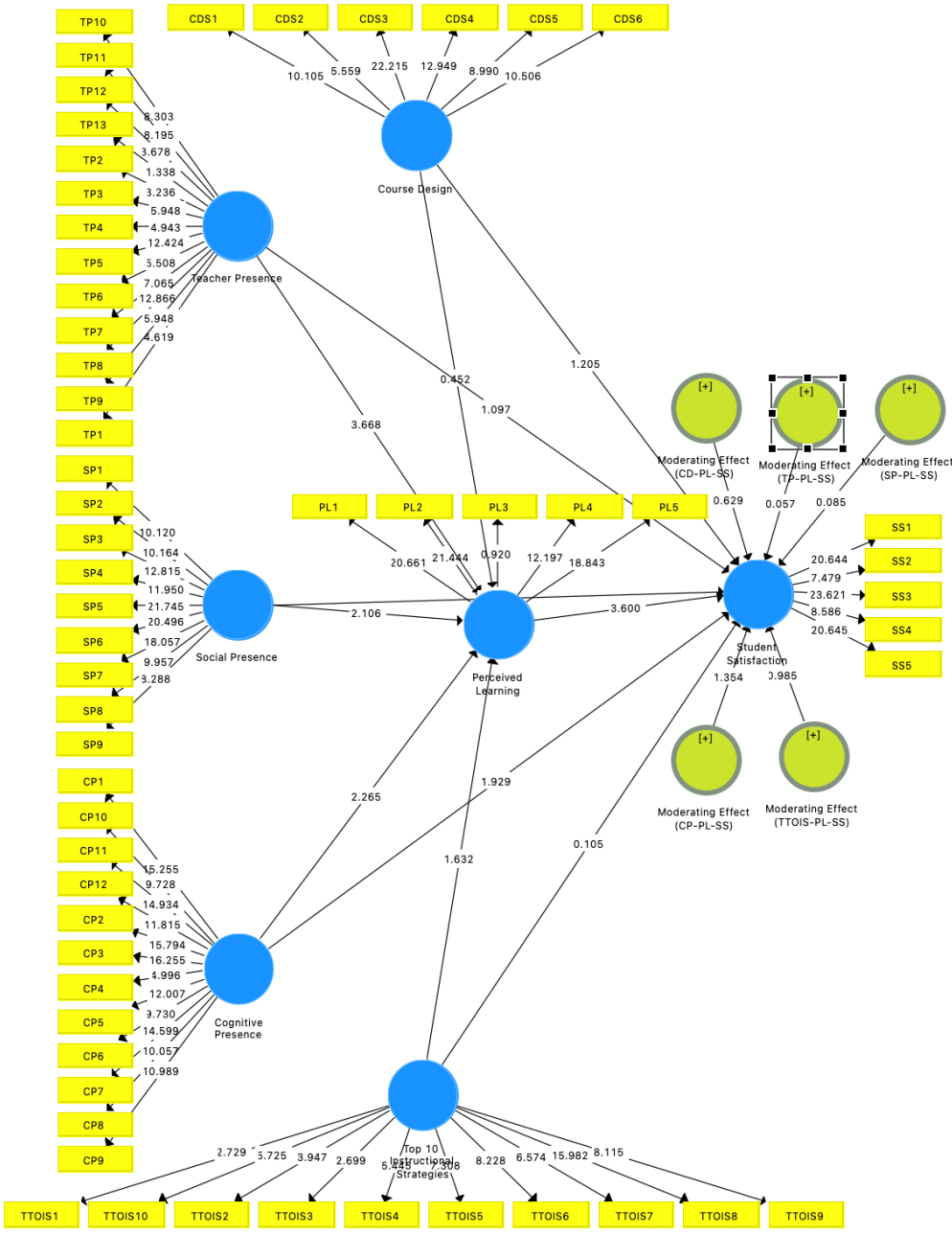

Figure 3. *Structural Model*

Table 4 shows the thematic responses to the probing question "Which specific aspect(s) of the Course B course design and learning strategies have contributed the most to your learning? Why?" Due to space limitations, only the thematic results of the second question of Course B are presented. The open-ended analysis of Course B is presented as this class had an actual exposure with entrepreneurs and business decision-makers, albeit through remote interaction. The results of these thematic responses are arranged according to the number of mentions and nodes generated by the NVivo qualitative data analysis software.

The strong R^2 values of both endogenous variables perceived learning and student satisfaction suggest the importance of thoughtfully planning the course design and instructional strategies if the intention is to achieve the intended learning outcomes and student satisfaction. This study's findings validate the crucial function of course design and instructional strategies which, when carefully devised for online learning, yield beneficial outcomes. The path analysis results demonstrate how the CoI presences (social, cognitive, and teaching) instructional strategies significantly influence students' perceived learning, supporting Hypotheses $H3_1b$, $H3_2b$, and $H3_3b$, respectively.

While perceived learning was not significant as a mediating variable in the relationship between the course design, CoI presences (social, cognitive, and teaching), and student satisfaction, the path analysis reveals that perceived learning as an endogenous variable significantly influences student satisfaction. Thus, Hypothesis H4 is supported. The results further lack consistency with earlier studies examining CoI and student satisfaction. Patwardhan et al. (2020) report teaching presence as a primary determinant of student satisfaction. Hypothesis $H3_3a$, which tested the influence of teaching presence on student satisfaction is not supported. However, the outcomes show that teaching presence significantly influences perceived learning (Hypothesis $H3_3b$) and in turn, perceived learning significantly influences student satisfaction (Hypothesis H4). Similarly, both CoI cognitive and social presence has no significant influence on student satisfaction, but influences perceived learning.

While the hypotheses intended to test the moderating impact of perceived learning on student satisfaction were not supported (Hypotheses H1c, H2c, $H3_1c$, $H3_2c$, $H3_3c$), the results show that perceived learning, as an exogenous variable, significantly influences student satisfaction. From these findings, it is thus enlightening for educators to consider designing the CoI presences carefully (social, cognitive, and teaching) instructional strategies, as these influence perceived learning. As the endogenous variable, perceived learning is strongly influenced by all the independent variables tested, including course design and instructional strategies (top 10 instructional strategies, CoI presences). This finding informs educators on the importance of carefully planning these pedagogical inputs to achieve the desired learning outcomes.

The open-ended thematic responses, indicative of the three CoI presences, underpin the above hypotheses' findings. Aligned with the proposition of the CoI originators, the results demonstrate how "meaningful learning takes place in a CoI, comprising of teachers and students, through the interaction of these three core elements..." Garrison et al. (1999). Eom and Ashill (2016) state how "instructor-student dialogue," "student-student dialogue," and "instructor and course design dialogue" significantly affect not only student satisfaction but also learning outcomes. These dialogues, reflecting the CoI presence counterparts of teaching, social and cognitive presences, are bolstered by the open-ended thematic responses in this study.

For the teaching presence ("instructor-student dialogue,") for example, some of these responses include *"assignments and synchronous discussions of these,"* (Table 5, #6); "*video-recorded lectures – despite being able to read the lessons in the book, it was the lectures that made me understand and learn the lessons,"* (#10); and, *"immediate feedback after checking the cases – allowed us to reflect on where we can do better..."* (#12); and *"learning logs allowed me to*

ask questions and gave me insight from the instructor without any worry" (#13).

For the social presence ("student-student dialogue"), some responses include *"collaborated with my groupmates even through online,"* (#2); "*the weekly synchronous classes allowed me to learn different perceptions from my classmates, even though it's only virtual"* (#6); *"Group assignments: with everyone's input and ideas we get to have a bigger idea of what we want to answer in the assignments; everyone was open-minded and also provided positive criticism which was very helpful for everyone in the group"* (#7) and *"Group cases: not only were we able to get to apply our learnings in the cases, but we were able to exercise our teamwork with our groupmates which is essential in the business industry"; and "allowed us to apply our learnings to different situations"*(#8).

For the cognitive presence ("instructor and course design dialogue"), among the responses include *"Course syllabus and the frequent updates from the instructor guided us on the schedules and what to do; the clear instructions on each requirement from the professor in our google classroom was a big help – I don't feel lost at all while taking the course; schedule of activities that the instructor provided ensured for me to keep track of the different activities and deadlines"* (#14). The students appreciate their exposure to the businessmen in the preparation of their marketing plan, albeit conducted virtually. The responses indicate the interplay of all three CoI presences.

These open-ended results likewise correspond with literature describing how "course organization and structure, student engagement, learner interaction, and instructor presence have accounted for considerable variance in student satisfaction and perceived learning in online learning environments" (Gray & DiLoreto, 2016, p.1). Some open-ended responses that illustrate course organization and structure include *"Readings, video lectures, and assignments that are related to the topics made me apply the learnings I gained from the book to a real-life scenario," (#9) and "Video lectures: helped me understand the concepts more rather than by just reading the book; video lecture was helpful in a way that we get to learn on our own pace while still being on time because of the activity deadlines... (#10).* Student engagement is evident in #5: *"Assignments: the main reason students are driven to read the course materials and learn and understand the concepts ... "*

Table 4. *Which specific aspect(s) of the Course B course design and learning strategies have contributed the most to your learning? Why?*

No.	Summary Responses
1	**Caselets and the exams:** made me think analytically about things and taught me to respond to situations that are more than the usual types of tests; gave me room to explore more and think outside the box, which is something rare to find during the online setup
2	**Marketing paper with our partner business:** the instructor was able to let us experience the process of making a marketing plan - from the meeting with the client to the turnover of the paper; we were able to apply the theoretical concepts learned to a real and existing business; we were able to interview and make a case study about a real company; taught us how to deal with business people; not only were we able to experience what it was like working with an actual business; case narrative final paper was not an easy task but it was the most fulfilling activity in Course B; through the professor, her partnerships with Mandaue Chamber of Commerce and Industry and the Mandaue Investments Promotions Action Center, our batch was able to suggest possible solutions in real-life business case scenarios
3	**Integrated real-life situations in our course submissions:** citing current happenings in a company on our papers helped me develop a more profound understanding of our topics; helped us realize how these happen in the business industry
4	**Weekly marketing updates:** we tried to relate marketing concepts to real-life companies; collaborative group discussions as well as class discussions that were interactive and fun

Continued on next page

Table 4. Which specific aspect(s) of the Course B course design and learning strategies have contributed the most to your learning? Why? (Continued)

No.	Summary Responses
5	**Assignments:** the main reason that students are driven to read the course materials, and in the process learn and understand the concepts; especially during the formulation of the assignments, desktop / online research was conducted to bring forth substantial essays that will answer the questions of the assignments; I love how many of my answers in the assignments were genuine learnings I had gained from reading course materials plus research, which I can use in the future
6	**Assignments and synchronous discussions of these:** was able to research and learn about a certain company and its marketing strategies; the weekly synchronous classes allowed me to learn different perceptions from my classmates, even though it's only virtual; allowed me to explore different companies and learn about their different marketing strategies; assignments required for us to study the required readings for us to answer them; allowed me to exercise on how to research extensively for me to provide the basis for my answers; answering the assignments and cases gave us the time to do more research and understand well every topic that was being imposed in the assignment; enabled us to use our strategies that would be useful in a specific marketing concept
7	**Group assignments:** with everyone's input and ideas we get to have a bigger idea of what we wanted to answer in the assignments; everyone was open-minded and also provided positive criticism which was very helpful for everyone in the group
8	**Group cases:** not only were we able to get to apply our learnings in the cases, but we were able to exercise our teamwork with our groupmates which is essential in the business industry, more so in the marketing field; allowed us to apply our learnings to different situations; group case studies really helped my learning in this online set-up because it allowed me apply the concepts introduced for each chapter in real-life scenarios; having to work with my groupmates made us interact with each other and indeed, it opened my eyes to new perspectives, making me learn from them as well; case studies challenged me to be critical when it comes to organizational factors that affect or are affected by the marketing side of the organization; allowed me to understand issues and solve them by applying what I have learned from the course; able to learn well a theory if presented with real life situation, and the caselets helped me a lot; am able to gather industry level knowledge given the application in each cases from different real companies; also the group activity provides me with an opportunity to widen my knowledge and understanding, as well broaden my perspectives in looking at how the theories are applied and can be applied to maximize the potential of different business; our group possessed different perspectives on given topics which helped us in brainstorming almost all possible alternatives given
9	**Readings, video lectures, and assignments** that are related to the topics made me apply the learnings I gained from the book to a real-life scenario
10	**Video lectures:** helped me understand the concepts more than just reading the book; video lecture was helpful in that we get to learn at our own pace while still being on time because of the activity deadlines. It ceases any pressure and fear we get from oral recitations; video lectures helped make me learn and understand specific points in the topic that I was confused about; (recorded) lectures have contributed most to my learning. It is because despite being able to read the lessons in the book, it was the lectures that made me understand and learn the lessons; video lectures remained us calm
12	**Immediate feedback after checking the caselets:** allowed us to reflect on where we can do better, which I appreciate; with feedback, we knew what the right things were to do and what was not
13	**Learning Logs:** made us honestly reflect on these learnings, without the fear of a low score or grade; allowed me to ask questions and gave me insight from the instructor without any worry; learning and reflecting without the anxiety of grades and scores helped in the online set-up which is why the learning logs contributed to my learning; learning logs pressured me to read and understand the chapters
14	**Course syllabus and the frequent updates from the instructor** guided us on the schedules and what to do; the clear instructions on each requirement from the professor in our google classroom were a big help – I don't feel lost at all while taking the course; schedule of activities that the instructor provided ensured for me to keep track of the different activities and deadlines

4.0 Conclusion and Recommendations

The abrupt transition to remote learning with minimum preparation and readiness among teachers, students and administrators alike brought about teaching and learning challenges. Among the anticipated consequences are the compromised achievement of learning outcomes and diminished student satisfaction. However, it remains the instructors' primary responsibility not only to ensure the attainment of the desired learning outcomes but also to evaluate the effectiveness of the same. This accountability is exacerbated because of the challenges of remote teaching and learning.

This study intended to examine undergraduate management students' remote learning experiences, particularly investigating the students' perceived learning and satisfaction, taking into account the course design and instructional strategies' influence through the Community of Inquiry (CoI) framework. The results of the path analysis highlight the crucial role of instructional strategies and the CoI presence. Students' perceived learning is significantly influenced by instructional strategies that incorporate the tenets of the cognitive, social, and teaching presences, and that student satisfaction is significantly influenced by perceived learning.

Thus, these results inform remote learning teachers to consider designing their courses and instructional strategies to one that judiciously integrates the CoI presences (social, cognitive, and teaching) if the intention is the delivery of effective online learning facilitation and attainment of student satisfaction. Likewise, those new to online and remote teaching modalities may reflect on the value of evaluating the extent of students' learning.

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