

# ACQUIRING BUSINESS SKILLS: THE EFFECTS OF SYSTEM EXPECTANCY MEDIATED BY CLASSROOM INTERACTIONS IN ONLINE EDUCATION<sup>1</sup>



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## ABSTRACT

The COVID-19 pandemic forced the educational system to shift from a traditional learning pedagogy to a fully online approach (Cabangcala et al., 2021). The realization of Education in a new format has casted doubts as to whether or not curricula and pedagogies developed for face-to-face teaching and learning remain relevant and effective for online education. Hence, this study aimed to determine if the development of business skills (BS) is still possible during the transition from face-to-face to an online learning environment. It further sought to describe the current online learning scenario and identify relationships among performance and effort expectancies (or system expectancy), teaching presence, and cognitive engagement (considered class interaction), together with the acquisition of BS to draw out implications for the improvement of online business education. This study followed a mixed-method research design that utilized a survey accomplished by 703 respondents from a higher educational institution in the Philippines as its primary source of data. The authors used the Wilcoxon signed-rank tests to determine the difference between face-to-face and online learning in terms of skills acquisition and classroom interaction. Furthermore, to support the study's findings, a structured interview among ten randomly selected business students and a model fit test using partial least squares path modeling (PLS-PM) were completed. The results revealed a significantly lower level of BS acquisition, teaching presence, and cognitive engagement in an online learning environment. The hypothesized network of variables depicted class interaction as a mediator of system expectancy and skills acquisition and was found to be a good fit at the 0.05 level of significance. In terms of originality, the study offered an appreciation of the role of expectancy and teaching presence in developing BS, especially since full online learning was adapted during the COVID-19 pandemic. The authors explored the mediating effects of class interaction in the online learning environment, the combined impact of teaching presence and student engagement, on the relationship between system expectancy and teaching presence.

**Keywords:** performance expectancy, effort expectancy, teaching presence, cognitive engagement, business skills, online learning

## 1. INTRODUCTION

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Education plays an unquestionable role in community progress and nation building. Al-Shuaiba (2014) has written that education illuminates a person's mind and thinking, suggesting that education helps individuals plan for their future. Education indeed has been instrumental in positive societal changes. Individual and collective efforts had brought these societal changes as part of education results. Despite these changes, education stabilizes people's eternal values in their moral and spiritual well-being. Education is the light to people's minds, it increases knowledge areas, especially in the concepts that need to be explored further or there is only little-known information.

Additionally, education enables a person's innate talent for leadership roles since society is vulnerable to injustices, crimes, and discrimination. Through education, problems or issues in society may be addressed by good social entities as its product. Furthermore, the United Nations (2020), in their 17 Sustainable Development Goals (SDG), aims to "ensure [the] inclusive and equitable quality of education and promote lifelong learning opportunities for all." Therefore, education has been an essential need for one's development, growth, quality of living, and the long-term promotion of one's well-being.

However, education is vulnerable to challenges as society changes. In 2020, the education system faced one of its most significant challenges. The shift to a fully online learning approach brought about by the novel coronavirus or COVID-19 pandemic raised concerns from parents, students, educators, and even institutions; where situations ask if educators and educational institutions may still pursue the value of developing skills during the classroom or physical interactions via online or the virtual platform. The idea of conducting online classes has been a debatable issue, especially in the Philippines. According to Reuters (2020), distance learning poses a considerable challenge to the nation. Many households have no access to the internet or do not even have devices or computers useful in an online learning approach. Besides that, teachers were also hesitant. Educators face uncertainties with the current situation, fearing not being ready when another school year opens with a different learning approach, something new that they need to adapt readily, or the so-called "new normal" in education. Despite the challenges that the country faces in conducting online learning and the students' call for an academic freeze, the Commission on Higher Education pushed through with the opening of classes, leaving the decision to the administrations of private schools on how to proceed with online education. With fully online learning being implemented, the big question and challenge now are, "Have the teachers and students adapted to the setting to continue learning the skills necessary to build one's competencies?"

Two years into online education and halfway through completing their degree, the students majoring in business management and related fields cannot help but wonder if they are getting the same training as they would have if classes were held face-to-face. Business skills, such as leadership, interpersonal, and non-verbal communication, are commonly developed through interaction with peers (Ferrerias-Garcia et al., 2021). Thus, stakeholders could not help but ask if students still acquire these skills in the virtual classrooms.

The purpose of this study is to look at the effects of system expectancy on building business skills through online education as mediated by classroom interactions. It seeks to value the teaching profession and teacher collaboration by encouraging conditions and innovations that will promote continuity in learning and acquiring necessary skills despite the pandemic allowing for open exchange of ideas and practices and flexibility (UNESCO, 2020).

### ***System Expectancy - Performance (PE) and Effort Expectancy (EE)]***

Santalla et al. (2018) describe performance expectancy as the ease (or difficulty) of system usage. This definition pertains to people who are more likely to adopt new technologies due to their necessity and availability (Vermaut & Trybou, 2017). The construct of performance expectancy proposed by Venkatesh et al. (2003) comprises five dimensions: perceived usefulness, extrinsic motivation, job-fit, relative advantage, and outcome expectations. Finally, effort expectancy is the belief or non-belief in the "help" that the system provides to its users. The help that the system/technology brings to its user may be considered effortless use, or contrarily, the difficulty in using the system. Rawal et. al (2021), Poongodi M et. al(2022), Poongodi M et. al (2021), Dhiman P et.al (2022), Sahoo S.K et.al (2022), K.A et. al(2022) , Dhanraj R.K et. al (2020), Poongodi M et. al (2019), Poongodi M et. al (2020), M. M. Kamruzzaman et. al (2014), M. M. Kamruzzaman et. al (2021), Md Selim Hossain et. al (2019), Mingju Chen et. al (2019)

### ***Classroom Interactions - Teaching Presence (TP) and Cognitive Engagement (CE)***

Teaching presence is the heart of the learning process, where educators play a vital and influential role. This includes the professors' time, energy, and their responsibilities in selecting the appropriate instructional methods

to support the students' achievement and learning satisfaction (Cornelius-White, 2007), which means that educators play an essential role (Kurek & Muller-Hartmann, 2019) in the development of course structure and materials to be understood and followed by students to significantly contribute to their learning and development. This can be further illustrated by the study of Law et al. (2019), stating that "teaching presence is critical in establishing the curriculum, approaches of teaching, and facilitation methods..." (p. 3).

Kurek and Muller-Hartmann (2019), in their study, elaborate on the importance of teaching presence in an online environment. The teaching presence begins with designing and organizing an online course that professors will guide the students. This includes various materials such as module instructions, examinations, online homework/activities, and online board discussions. Part of their virtual visibility is facilitating discourse with the students by interacting or communicating in class discussions. In this manner, professors would be able to expand the students' knowledge and learning. Finally, professors also engage themselves in direct instruction. This tells us that two-way communication between educators and students in terms of providing feedback to the students' performance and assessing the students' understanding of the subject matter contributes to the overall teaching presence. Moreover, because teaching presence involves interaction, educators should also develop sensitivity and prioritize the importance of building trust and cohesion among the students as well as learning how to approach emerging challenges and contradictions (Kurek & Muller-Hartmann, 2019).

Also, for students' learning to occur, engagement is highly essential (Walker & Koralesky, 2021). Educators are challenged to learn how to engage their students cognitively despite the mode of education available. Gao et al. (2020) defined cognitive engagement as the student's learning effort. This was earlier depicted in a study according to Solis (2008), that for a student to be called cognitively engaged, the student has to be paying attention to the teacher – quiet, book turned to the correct page, maintaining the look at the teacher, interacting or showing interest through feedback or questions based on the content of the lesson/discussion. If the student indicates otherwise, a lack of engagement may lead to decreased motivation, interest, and poor learning outcomes (Gao et al., 2020).

### ***Business Skills***

Developing adept business skills may be equivalent to students' performance as we all contribute to the community or organization they belong to or will be a part of. In addition, these skills are part and parcel of the vast array of opportunities and threats that may face their careers. However, these business skills comprising technical know-how, practical, soft, and people skills (Raikes & Cox, 2016) are in question due to the shift in teaching pedagogy. Furthermore, these business skills need attention to focus on people skills and one's ability to communicate, interact, influence, and take responsibility for the situation at hand (Raikes & Cox, 2016). Finally, as skills involve an ever-evolving and ever-changing paradigm, adapting to the organization's challenges of soon-to-be employees (students) must learn to adapt given the volatile technology, processes, and standards at work.

Ahmad and Ahmad (2019) defined business skills as acquiring and developing traditional management skills to perform simple to complex activities in an organization. These skills are also vital to sustaining the organization's daily operations and performance (Afolabi & Macheke, 2012)

Literature explicitly identifies several factors that may influence the development of these 21st-century learning skills, such as performance and effort expectancy, teaching presence, and cognitive engagement. Performance expectancy or the ease or difficulty of use of technology that will help students accomplish their performance goals and effort expectancy or the belief in the technology, system, or structure that will assist in the student's effort in learning significantly impacts the development of business skills. In the study of Long (2012), both performance and effort expectancy in adaptation to technology should be influenced by educators to affect skills development. Thus, teaching presence or the instructor's role is an important factor, including social and cognitive presence that affects the student's educational experience, resulting in more meaningful and unique learning (Ganayem & Zidan, 2018). Literature elucidates the importance of establishing an enriching curriculum, engaging activities, and class facilitation methods to enable interpersonal communication that contributes to developing business skills (Law et al., 2019). Moreover, Ganayem and Zidan (2018), in their study stated that 'social, cognitive and teaching presence enable students to have a successful educational experience that can lead to a deep academic learning, as well as the development of higher-order thinking skills such as critical thinking, synthesis, and evaluation' (p. 122) all are essential skills in the age of technology. Further, cognitive engagement involves the students' self-regulation and goal orientation, contributing to the development of business skills (Gunn & Hollingsworth, 2012; Law et al., 2019). Also, the type of cognitive engagement establishes the student's perceived sense of identification and belongingness (Gunn &

Hollingsworth, 2012). Contrarily, other literature averred that cognitive engagement and teaching presence do not significantly differ on its level of influence on the student's affective (awareness, willingness, etc.) learning outcomes even though teaching presence weighted the highest followed by the cognitive then social presence (Lim & Richardson, 2021).

## 2. METHODOLOGY

The authors utilized a causal-descriptive mixed method research design using a survey, and at the same time, following a structured interview. A private higher education institution in Bulacan, Philippines, with almost 5,000 students, agreed to participate. The survey was distributed online to about 2,000 students through the university's learning management system for online learning. There were 703 valid responses submitted to the researchers that were collected within two months, and there were 20 interviews conducted for the study.

The 5-point Likert scale survey included data on students' performance expectancy (PE), effort expectancy (EE), teaching presence (TP), cognitive engagement (CE), and business skills (BS) on face-to-face and online learning approaches were gathered using an online questionnaire published on the school's learning management system. The instrument was adapted from the existing 5-point Likert questionnaires where PE contained statements like, "This learning mode enables me to accomplish tasks more quickly," and EE has statements such as, "It is easy for me to adapt in class" (Santalla et al., 2018). TP, for instance, utilized, "The course structures are innovative" Law et al. (2019). CE uses statements such as, "This mode (online) keeps me active in class" (Gao et al., 2020). While, BS has items like "Ability to listen to and accept orders" (Szczepańska-Woszczyna & Dacko-Pikiewicz, 2014).

Wilcoxon signed-rank tests were used to determine the difference between face-to-face and online learning in terms of skills acquisition and classroom interaction. Triangulation was performed by conducting a structured interview among twenty randomly selected business students and by drawing and testing a causal model that predicts BS using partial least squares path modeling (PLS-PM) reinforced with mediation analysis using direct and indirect effects. The researchers explored how the students perceive their performance in an online learning environment to develop their business skills and looked at how the authors may suggest improving this considering the relationships of the variables involved by analyzing the qualitative data using thematic analysis.

## 3. Results and Discussion

Considering that the ordinal nature of the data collected as well as its single source of the university and because the homogeneity of variance assumption of the paired t-tests was violated, the non-parametric Wilcoxon signed-rank test was used to determine if there's a significant difference in the students' business skills acquisition when they had face-to-face classes before and now that they are doing so online. The results were revealed to be significant on an alpha value of 0.05,  $V = 224129.00$ ,  $z = -22.08$ ,  $p < .001$ . For students, they can acquire BS in the old set-up (Mdn = 4.40), but they are unsure now that classes are online (Mdn = 3.00). The summary of descriptive statistics is presented in Table 1 below:

**Table 1**

*Summary of Descriptive Statistics*

Variable	Face-to-Face Class				Virtual Class			
	M	SD	n	Mode	M	SD	n	Mode
Effort_Expectancy	3.71	0.49	702	4.00	2.95	0.68	701	3.00
Performance_Expectancy	3.95	0.48	702	4.00	3.13	0.55	702	3.00
Teacher_Presence	4.34	0.62	701	5.00	2.95	0.78	700	3.00
Cognitive_Engagement	4.21	0.59	699	4.00	2.74	0.87	700	3.00
Business.Skills	4.36	0.59	702	5.00	3.02	0.75	696	4.00

Note: The n varied after removing the outliers from the dataset.

The difference between face-to-face and online classes across all the variables considered is evident in the table. The means reflect that effort and performance expectancies, teacher presence, cognitive engagement, and even the acquisition of business skills was evident when classes were still face-to-face. However, with online education, business students are unsure or neutral be it on system expectancy, classroom interactions, or acquisition of business skills. The change is evident even in the modes of the datasets. Generally, the business students perceive education to be in decline after the shift to online.

The significant change may be attributed to the teaching and learning modality change, only if the known factors of skills acquisition would reflect the same. With cognitive engagement and teacher presence identified as two significant predictors, Wilcoxon signed-rank test was used on these variables with the teaching modality as a grouping factor. For teaching presence, the results were revealed to be significant on an alpha value of 0.05,  $V = 218383.50$ ,  $z = -21.74$ ,  $p < .001$ , with face-to-face teacher presence described as evident ( $Mdn = 4.20$ ), and online interpreted as uncertain ( $Mdn = 3.00$ ). The same can be concluded with cognitive engagement on the same alpha value,  $V = 222262.00$ ,  $z = -22.08$ ,  $p < .001$  with face-to-face ( $Mdn = 4.33$ ), amassing an evident amount of cognitive engagement, while online ( $Mdn = 3.00$ ) remains neutral.

As face-to-face learning is significantly better than online in all three respects, the researchers focused first the interview on the factors that could serve as hurdles to online learning – system expectancy.

The first emergent theme is focused on the significant statements of the student informants that would explain Performance Expectancy on the current set-up of learning. Therefore, the following theme clusters emerged from the responses of the students: (1) Rendering Productivity; (2) The Boons of Online Learning; (3) The Banen of Online Learning; (4) Remembering Face-to-face Classes. With the help of these theme clusters, the researchers were able to identify the reasons why students find online learning productive, the advantages and disadvantages of online learning, and its differences from face-to-face class sessions.

**Table 2**

*Thematic Analysis: Performance Expectancy (PE)*

Emergent Theme	Theme Clusters	Formulated Meanings
Performance Expectancy (PE)	Rendering Productivity	<ul style="list-style-type: none"> <li>● Materials are readily available.</li> <li>● Students can work at their own pace.</li> </ul>
	The Boons of Online Learning	<ul style="list-style-type: none"> <li>● Additional information about the lesson can be searched online.</li> <li>● Students were able to attend to other responsibilities.</li> <li>● Immediate feedback on assessments such as in multiple choice type practice items and quizzes</li> <li>● No more travel time.</li> <li>● Working independently.</li> </ul>
	The Banen of Online Learning	<ul style="list-style-type: none"> <li>● Students are being distracted with mobile games and social media platforms.</li> <li>● Professors cannot really tell if students are listening.</li> </ul>
	Remembering Face-to-face Classes	<ul style="list-style-type: none"> <li>● Smooth interaction in face-to-face learning.</li> <li>● Queries are being clarified all at once.</li> </ul>

According to some of the informants, they find online learning productive because of some reasons. First, the school made the materials needed for the semester readily available, aside from the fact that it's very easy to search things online. Second, they find it productive because they can work at their own pace even without the guidance of instructors. It also helps that some exercises, especially the objective types, are automatically checked by the system and feedback is immediate. Third, they can save time on traveling from home to school and back, and they can use this time to study more or to relax. In their own words,

*“Materials were given to us before the semester started through the REIMAGINED Flash Drive which gave me (us) ample time to do advanced readings.”*

Transcript 2, Line 137-139

*“...online learning allows me to be more productive because it teaches me on how to be responsible on how to make my activities by myself.”*

Transcript 10, Line 1030-1032

However, not everyone feels the same in terms of personal expectancy. Many students also feel that online learning is disadvantageous to them for several reasons. One, there are a lot of distractions, because students are unrestrained as they have classes in the comforts of their homes. Two, with cameras turned-off as students cannot be compelled to turn them on as per data privacy law, students are even freer because “nobody is watching.” There is no means to determine whether the students are really listening during the discussion as the teacher is unable to read both verbal and nonverbal cues. Lastly, the internet connection also poses issues, especially during peak hours. These are what informants have to say:

*“...it does not allow me to be productive because of the temptations such as social media (Facebook, Twitter, Instagram, and Tiktok) that prevent me from listening during online classes and answering activities early to pass it (them).”*

Transcript 1, Line 8-11

*“...whenever our professors ask(s) a question, all you can hear is (the sound of) crickets, and for me, it's a show (sign) of disrespect not to respond to someone who's asking.”*

Transcript 8, Line 831-833

The second emergent theme pertains to the Effort Expectancy (EE), theme clusters under this theme include: (1) Elucidating Adaptability and (2) Time Management Skills. This shows that students can adapt to the current situation and the new set-up of learning due to some reasons. For them to adapt and be able to submit the needed requirements for their courses on time, adjusting their schedule with the help of their time management skills becomes a must.

**Table 3**

*Thematic Analysis: Effort Expectancy (EE)*

Emergent Theme	Theme Clusters	Formulated Meanings
Effort Expectancy (EE)	Elucidating Adaptability	<ul style="list-style-type: none"> <li>● Out of necessity, given by the situation.</li> <li>● The school paved the way for the students through different learning modalities and learning management systems.</li> <li>● Resources are available such as laptops, mobile phones, and the internet.</li> </ul>
	Time Management Skills	<ul style="list-style-type: none"> <li>● Doing their activities right after the discussion to ensure retention of information.</li> <li>● Planning their schedule gives them time to do other tasks and have time to rest.</li> </ul>

Due to the current set-up of learning brought by the COVID19 pandemic, everybody has to adapt and adjust with the new normal in education, which is online learning. What helped with the adjustment are the preparations made by the university, the learning management system, and the tools and gadgets for online learning. According to student-informants:



*“Global pandemic has paved the way to the new normal in the business world. It is imperative for students who are about to enter the corporate world to adapt and learn the competencies needed in the new normal of businesses.”*

Transcript 2, Line 147-150

*“...the giving of Flash Drive, the use of Schoology, the watching of VIEWS on YouTube, etc. It feels like the College put their hearts into providing quality education not just for online learners but also for offline learners.”*

Transcript 8, Line 778-781

On the other hand, student informants said that their time management skills play a big part in adapting to the current set-up of learning. They do their activities right after the live discussion or watching the recorded videos so that they can easily answer the activities that would come after since the information is still fresh in their minds. Secondly, in order for them to do other tasks and be able to set a time for their rest, they are planning their own schedule as part of managing their time. To cite:

*“I do my activities earlier without compromising the value of the output and allot other time to do household chores, to socialize and to entertain oneself (myself) via social media applications.”*

Transcript 6, Line 537-540

*“Online learning teaches me to be more flexible because in making assignments, activities and also examinations I will do my schedule and time management for me to comply with this (all of the requirements).”*

Transcript 10, Line 1032-1034

A closer look into the accounts of students pertaining to system expectancy will reveal two things: One, there are issues with performance and effort expectancy because students are not mature enough to handle online learning. While the informants are already in college/university and pursuing the bachelor's degree, their notion of education of how they see the teacher as supposedly policing the tasks and activities so they can do it well is still evident. The repetitive mention of multi-tasking and doing house chores while having classes is not a positive trait, but rather a threat to the new educational system. If anything, it depicts only the lack, if not the absence of student engagement in online classes.

Cognitive Engagement expounds the students' take in the learning process, their willingness to participate, and the reasons why they cannot participate in a live discussion. Theme clusters include (1) Participating in Class, (2) Effective Technique, and (3) Dilemmas in Class Participation. The students contribute to the discussion by sharing their thoughts whenever their professors are asking questions. For them, there are effective activities or techniques that can be used for them to be engaged in the discussion and there are reasons why students decide to stay silent or unresponsive when their professors ask questions.

**Table 4**

*Thematic Analysis: Cognitive Engagement (CE)*

Emergent Theme	Theme Clusters	Formulated Meanings
Cognitive Engagement (CE)	Participating in Class	<ul style="list-style-type: none"> <li>• Students are participating when they are certain of their answer.</li> <li>• Students participate as their way of learning more of the lesson.</li> </ul>
	Effective Techniques	<ul style="list-style-type: none"> <li>• Integrating fun games during class sessions.</li> <li>• Professors should give rewards in the form of additional points.</li> </ul>

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- |                           |          |  |
|---------------------------|----------|--|
| Dilemmas<br>participation | in class | <ul style="list-style-type: none"> <li>• Students are shy or afraid to speak.</li> <li>• Not all students have stable internet connection or compatible gadgets for online class.</li> </ul> |
|---------------------------|----------|--|
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The students opt to participate in live discussions when they are certain of their answers on the questions that are being asked by the professors. Some students see it as a way of deepening their understanding of the lesson because they can exchange ideas with the professor and their classmates. To prove:

*“I do participate especially when I know what is the answer for my professor’s questions but most of the time I just listen and take note of those points being discussed.”*

Transcript 6, Line 555-557

*“I make it a point to participate in every live meeting, for I know that’s the best opportunity to test what I’ve learned and learn more.”*

Transcript 8, Line 835-836

As mentioned from the previous emergent theme, techniques of the professors are important when it comes to teaching presence, and so is cognitive engagement. According to the student informants, the meetings would be more engaging if the professors would give rewards or additional points to the students who are participative and also, integrating fun games with the help of apps or websites available for them to use. To attest:

*“There are also memes about advertisements of some companies who are really funny yet senseful. Creating games, adding pictures, videos, animations and giving them a break so that they could be active again.”*

Transcript 1, Line 111-113

*“Games po that correspond to plus points. (Games that correspond plus points) As I observe, additional points become a motivation for students like me to actively participate.”*

Transcript 6, Line 558-559

Lastly, student informants shared their reasons why some of them cannot actively participate in the live discussions. It is because they are afraid to speak their mind, thinking that their answer would be incorrect or simply because of their timidity. Another reason is that not all of them are using a good device such as a microphone or camera needed for the online class. As cited:

*“I find it somehow boring to participate due to the fact that you cannot see the reactions of your classmates. It is really hard to figure out whether or not your concerns contribute to their learning or boredom.”*

Transcript 2, Line 206-209

*“There are times when I’m hesitant to speak due to several reasons such as: I’m conscious and distracted of my own voice and aside from that I’m also shy especially if a family member is nearby and I’m aware that they could hear me talking.”*

Transcript 7, Line 708-712

Noticeably, the activities suggested by the students to invoke cognitive engagement require the presence of the teacher to be largely felt. This is a difficult feat considering that the greatest visual, which is the teacher, can only be seen on the computer screen. Coupled to this is the inclination of students for the gamification of lessons. Thus, it poses the challenge of making teacher presence felt in the online learning environment.



Theme clusters under the Teaching Presence include the following: (1) Professors’ Influence, (2) Effectivity of Instructional Tools, and (3) Offering Suggestions. There is a teacher presence when the professor delivers the lessons, encourages their students to participate, and motivates their students to do readings and continue learning even outside the live discussions. Secondly, the materials prepared by the professors also help the students to cope with the lessons and study on their own and even without the need for the internet connection. Lastly, student informants were also able to give their suggestions on how they think teaching presence can be felt more.

**Table 5**

*Thematic Analysis: Teaching Presence (TP)*

Emergent Theme	Theme Clusters	Formulated Meanings
Teaching Presence (TP)	Professors’ Influence	<ul style="list-style-type: none"> <li>● Providing examples which students can relate with.</li> <li>● Professors’ creativity to catch attention and elicit responses.</li> <li>● Professors’ attendance during live meetings is important.</li> <li>● Professors’ passion in teaching affects students’ engagement in class.</li> </ul>
	Effectivity of Instructional Tools	<ul style="list-style-type: none"> <li>● Students can review and study on their own.</li> <li>● Learning continues even without the internet.</li> </ul>
	Offered Suggestions	<ul style="list-style-type: none"> <li>● More engaging, through asking questions, and quizzes.</li> <li>● Catchy and simple visual aids.</li> <li>● Encourage students to turn on their cameras during class sessions.</li> <li>● Group activities that would make students interact with each other.</li> </ul>

Truly, professors play a vital role in the learning process of every student. Hence, students always look up to them whenever they do not understand something in the lessons. According to the student informants, professors who give real-life situations can be effective as students can relate with those kinds of examples. Also, the creativity and innovativeness in utilizing the gadgets and other useful apps give them additional points when it comes to their teaching techniques. Most importantly, professors are the ones who lead the class meaning their attendance in live discussions is highly needed. In addition, students admire the professors who teach by heart or someone who shows a very deep passion in teaching with that, students are being hooked with the discussion. As cited:

*“A reading professor is necessary for information exchange but a professor that is making a conversation with the students is important for learning and retention.”*

Transcript 3, Line 276-278

*“...like in video lecture(s) some professors really explain the topic clearly and use some personal experience to better understand the topic.”*

Transcript 6, Line 543-545

Student-informants also offered suggestions that can contribute to a more felt teaching presence. According to them, professors should elicit answers from the students by asking more questions, that way, exchange of information can happen and would deepen their understanding on the subject matter. Also, professors should use

presentations that would catch the attention of the students as there are many distractions in the current set-up of learning. Aside from that, professors should also encourage students to turn on their cameras to make sure that they are truly paying attention to the discussion, that way, they would feel that the set-up is similar to face-to-face classes since they can see each other. Finally, professors should also do breakout sessions for the students, have them work in groups for them to interact with each other. To quote:

*“I think that they have to make us focus and introduce very interesting videos, animations, new type of powerpoint (PowerPoint) presentations such as using Canva and others.”*

Transcript 1, Line 76-78

*“They must (require) all the students to open their camera if possible to be more engaged and monitor the students if they do not have their attention to class unlike when off cam when you do not know if what is the students are doing behind the cam.”*

Transcript 4, Line 393-397

It can be observed that the students’ notion of teaching presence is still very much literal. They feel it is most effective in soliciting cognitive engagement when the communication is real time which requires the physical presence of the teacher on the other end of the internet line. This further strengthens the idea that the learning management system which encapsulates performance and effort expectancy, is not a means to itself, but rather a driving force to promote class interaction, which is characterized by cognitive engagement and teacher presence as described by informants.

The last emergent theme centers on the business skills of the students that has deteriorated after the shift to online learning. Based on the statements of the students two (2) theme clusters emerged: (1) Connecting with others and (2) Developing Technical Knowledge. Connecting with others include the development of their interpersonal skills and communication skills, although the current set-up of learning hinders them to meet each other face-to-face, still, they were able to establish connections with each other since they share the same situation, being a student in these trying times. Obviously, since the current set-up of learning relies on the use of technology, students were able to develop their technical knowledge especially on how to use applications and gadgets needed for their online classes.

**Table 6**

*Thematic Analysis: Business Skills (BS)*

Emergent Theme	Theme Clusters	Formulated Meanings
Business Skills (BS)	Connecting with others	<ul style="list-style-type: none"> <li>Establishing friendships with virtual classmates through asking academic matters.</li> <li>Improving their communication skills through understanding each other.</li> </ul>
	Developing Technical Knowledge	<ul style="list-style-type: none"> <li>Setting up their working space and solving technical problems on their own.</li> <li>They were able to familiarize themselves with the user interface of the apps needed for online class.</li> </ul>
	Limited Opportunities to Hone Leadership and Analytical Skills	<ul style="list-style-type: none"> <li>The shift to virtual internship resulted to mostly clerical work with less managerial training.</li> <li>The virtual simulations and case discussions became less in number and less challenging because of continuous watering down of tasks.</li> <li>Students are less-involved and less-engaged even in group activities because they don’t meet physically.</li> </ul>

Connecting with each other helps the student cope with the lessons. Though some students have not met each other yet, they were able to establish relationships online as well. This was made possible because of their interpersonal and communication skills. They are asking each other about the lessons and what activities are to be submitted on a specific date, hence starting a friendly relationship. To assert:

*“...building relationship(s) is one of the great advantages of this new mode of learning. Online discussions and meetings help[s] every student and professor to reach for one another, creating a boundless relationship that aims to achieve academic goals.”*

Transcript 1, Line 129-132

*“...in this mode of learning I can communicate easily to all of my classmates even if we didn't meet in person[al]. I also made some friends and new acquaintances.”*

Transcript 4, Line 431-433

On the other hand, as part of the competencies in the new normal education, students should know how to utilize the technology needed for online classes. Hence, they were able to develop their knowledge when it comes to the specificity of the device and applications. As a proof:

*“I did all the wirings in our room to set-up our work stations which I am not used to before.”*

Transcript 2, Line 224-225

*“To be honest, before I wasn't informed about google meet (Google Meet) or zoom (Zoom App), where you can see more people in a call or in a meeting. As I got used to it, I adapted this type of environment slowly. I learned new things about the technology.”*

Transcript 5, Line 456-459

Another bane in online business education is the limited opportunities to hone leadership and analytical skills. According to students, there are less and less big events and organizational projects now that everything is online. As two students put it:

*“We still have organizations and events, but the preparation is very much unlike before. When it was face-to-face, we had to concern ourselves with logistical matters, communicating and following up with people, and securing resources outside the university. Now, it's all about creating a Zoom link, assigning co-hosts, and preparing a background image. We're missing out on a lot of things... probably on teamwork and leadership, as well.”*

Transcript 18, Line 1825-1837

“Virtual OJT is like a joke to many of us. While there are also success stories, very rare ones, many of us were just given secretarial tasks during our internship. OJT supervisors would say it's the only thing that can be done online.”

A quick look at the accounts of student-informants may make one think there's little problem with developing business skills in the online learning set-up. However, a lot of the BS were not even mentioned by informants. Critical thinking skills, collaboration skills, and creativity skills, are just some of the skills that were not mentioned by informants in the interview. Also, the take on communication skills and technical skills are inadequate as they are merely focused on the basic class usage for online learning. For example, communication was limited to exchanging messages, but not to the fluency in written and oral academic discourse.

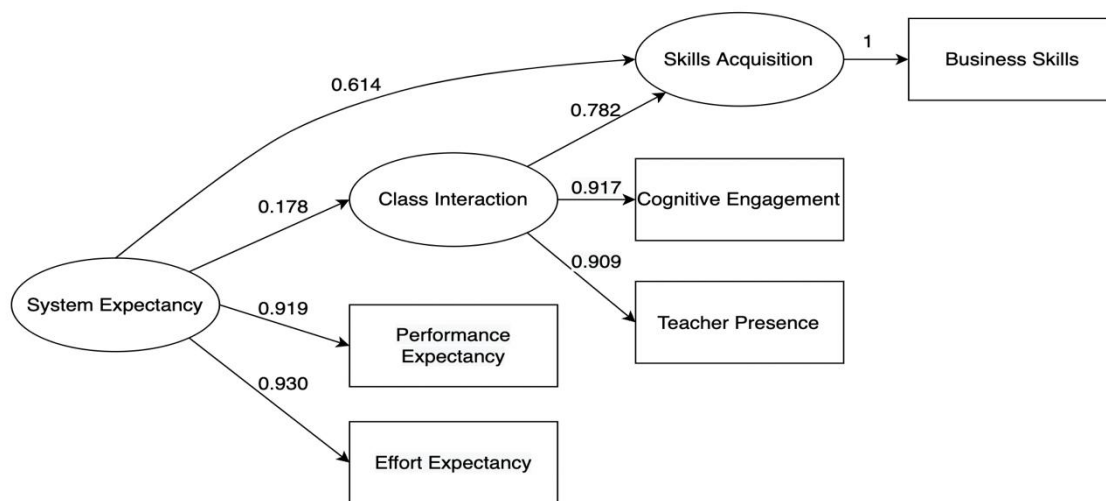
The skills that were not revealed in the thematic analysis indicate that class interaction is indeed lacking at present. Developing collaborative skills, for example, require carefully laid out plans of group dynamics where the engagement of the students is a must and the teacher's presence vital. After all, the skills are truly learned

when the students are able to reflect on the value of the activities that are completed, and it is imperative that teaching presence is felt to guide the young in the process.

Thus, the researchers posit that the skills acquisition or development is brought about by an effective class interaction characterized by the teacher’s presence and the students’ cognitive engagement. On the other hand, this class interaction requires a new medium other than the classroom as physical classes are not yet possible. Thus, the learning management system plays a big role, and performance and effort expectancy are good candidates as predictors. The node diagram depicting the network of variables that describe the variables and their relationships is hypothesized.

**Figure 1**

Node diagram for the PLS-PM model with loadings shown.



The measurement and structural model were validated to assess the PLS-PM model prior to the analyses of its regressions. The measurement model was examined using multidimensionality and loadings, the significance of which is tested using bootstrapping method, communalities, cross loadings.

Table 6 presents Cronbach's alpha and Dillon-Goldstein’s rho, both of which are greater than 0.7 and thereby reflecting that the assumption of multicollinearity of indicators has been met (Sanchez, 2013) for the reflective indicators are correlated positively with each construct.

**Table 7**

Unidimensionality of Indicators for Each Latent Construct

Construct	Indicator Type	Number of items	$\alpha$	$\rho$
System_Expectancy	reflective	2	0.82	0.92
Skills_Acquisition*	reflective	1	--	--
Class_Interaction	reflective	2	0.80	0.91

\*Note. Unidimensionality does not apply to formative indicators or latent variables with only one indicator variable.

Henseler et al. (2009) posits that weak loadings in latent variables are identified when the variability of each indicator are only able to explain less than half of the variability in its latent variable construct, which is definitive when the loading is at least .707 and the communality is at least 0.5. Table 7 shows that there are no reflective indicators with weak factor loadings in the study.

**Table 8**

*Outer Model Summary Table for the PLS-PM Model*

Indicator	Construct	Weight	Loading	Communality
Performance_Expectancy	System_Expectancy	0.52	0.92	0.85
Effort_Expectancy	System_Expectancy	0.56	0.93	0.87
Business_Skills	Skills_Acquisition	1.00	1.00	1.00
Cognitive_Engagement	Class_Interaction	0.56	0.92	0.84
Teacher_Presence	Class_Interaction	0.54	0.91	0.83

Meanwhile, the specified latent variable structure was tested to see if it fits the data. This was done by testing for cross-loading, which occurs when an indicator has a higher absolute value loading on a latent variable other than to which it was originally assigned (Henseler et al., 2015). Table 8 shows performance and effort expectancies fall under system expectancy, while cognitive engagement and teacher presence fall under class interaction, as assigned. Thus, the structure fits the data.

**Table 9**

*Loadings and Cross Loadings of the Outer Model.*

Indicator	System_Expectancy	Skills_Acquisition	Class_Interaction
Performance_Expectancy	<b>0.92</b>	0.60	0.68
Effort_Expectancy	<b>0.93</b>	0.62	0.76
Business_Skills	0.66	<b>1.00</b>	0.75
Cognitive_Engagement	0.76	0.67	<b>0.92</b>
Teacher_Presence	0.66	0.71	<b>0.91</b>

*Note.* The bolded items are the specified loadings for each indicator.

The R-squared values of the endogenous variables were computed. According to Sanchez (2013), a value of at least 0.20 for R-squared is sufficiently large to indicate that the relationship is fit for the model. Table 9 summarizes the test results for this.

**Table 10**

*Structural Model Summary.*

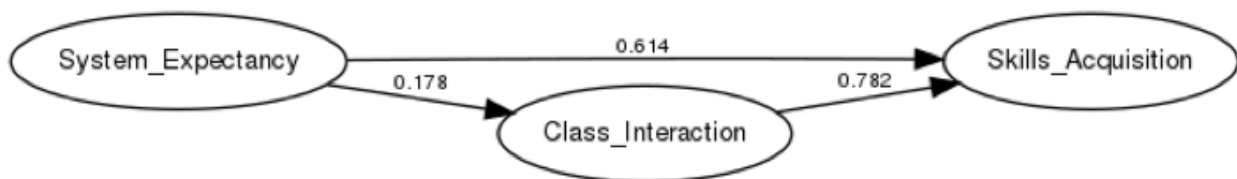
Construct	Type	R <sup>2</sup>	AVE
System_Expectancy	Exogenous	--	0.86
Skills_Acquisition	Endogenous	0.58	1.00
Class_Interaction	Endogenous	0.61	0.83

*Note.* For constructs with formative factors, AVE is not assessed; R<sup>2</sup> is not calculated for exogenous variables.

According to Vinzi et al. (2010), PLS-PM’s forecasting capability is best determined by the GoF index, with 0.70 as the threshold for being considered acceptable. The model proposed by the researchers has a GoF of 0.71, which means the forecasting capability of the model is acceptable.

**Figure 2.**

*Inner node diagram for the PLS-PM model*



Bootstrapping was done with 500 resamples, with regression coefficients being evaluated using 95% confidence intervals to determine, using an alpha value of 0.05, the significance of the regression paths (Henseler et al., 2009). System Expectancy significantly predicted Class Interaction, B = 0.18, 95% CI [0.09, 0.28], indicating a one-unit increase in System Expectancy will increase the expected value of Class Interaction by 0.18 units. System Expectancy significantly predicted Skills Acquisition, B = 0.61, 95% CI [0.53, 0.69], indicating a one-unit increase in System Expectancy will increase the expected value of Skills Acquisition by 0.61 units. Class Interaction significantly predicted Skills Acquisition, B = 0.78, 95% CI [0.75, 0.81], indicating a one-unit increase in Class Interaction will increase the expected value of Skills Acquisition by 0.78 units.

A causal mediation analysis was conducted to assess if Classroom Interactions mediated the relationship between System Expectancy and Business Skills. Mediation was examined based on the indirect and direct effects using bootstrapping (N = 100) with percentile-based confidence intervals. The results are based on an alpha of .05.

**Table 11**

*Results for the Regression on Business Skills*

Variable	B	SE	95.00% CI	t	p
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(Intercept)	3.02	0.02	[2.99, 3.06]	162.47	< .001
System.Expectancy	0.23	0.05	[0.13, 0.34]	4.40	< .001
Classroom.Interactions	0.61	0.04	[0.53, 0.69]	15.35	< .001

The average indirect effect for SE on BS through CI was significant,  $B = 0.64$ , 95.00% CI [0.53, 0.72]. There is a significant impact on business skills acquisition when system preference is used to further teacher presence and cognitive engagement.

**Table 12**

*Results for the Regression on Classroom Interactions*

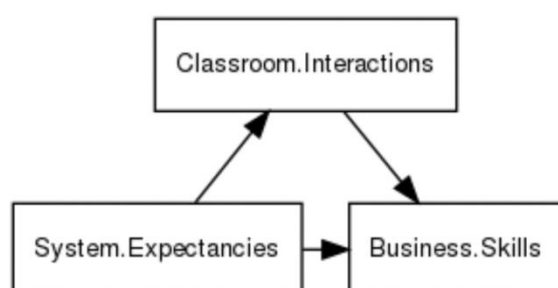
Variable	<i>B</i>	<i>SE</i>	95.00% CI	<i>t</i>	<i>p</i>
(Intercept)	$-1.95 \times 10^{-16}$	0.02	[-0.03, 0.03]	-0.00	1.000
System.Expectancy	1.04	0.03	[0.98, 1.10]	33.44	< .001

The average direct effect was significant,  $B = 0.23$ , 95.00% CI [0.13, 0.34],  $p < .001$ . This reaffirms that SE significantly predicted BS.

Thus, classroom interaction partially mediates the effects of system expectancy on business skills acquisition. The tools used for distance education, including its ease of use, has a direct impact on how much the students acquire the necessary business skills. This impact is even greater when the technology used solicits more classroom interaction by engaging students cognitively and making teacher presence felt more. This interaction leads to better acquisition of business skills.

**Figure 3**

*Node diagram for the mediation analysis*



The findings of the study concur with existing literature. According to Vermaut and Trybou (2017), effort and performance expectancies, with the latter being the most, are significant predictors of behavioral intention. This behavioral intention, in the context of education, may be in the form of cognitive engagement and active participation. Gao et al. (2020) posit the same as they concluded that playfulness, usefulness, ease of use and

interaction positively affect students' emotional participation with usefulness having a great impact on cognitive engagement. This engagement happens together with the teacher's presence being felt in the classroom (Kurek and Müller-Hartmann, 2019). Cornelius-White (2007) and Solis (2008) have identified the same facets of classroom interaction that led to better behavioral and learning outcomes.

#### 4. CONCLUSION

In both learning environments, educators should be mindful of establishing teaching presence and cognitive engagement to prepare and develop the students' business skills (Ganayem & Zidan, 2018). Additionally, the expectancies influence the development of these skills both directly and indirectly through classroom interaction. Face-to-face and online learning approaches should not be treated differently, and students should not feel the distinction between environments as both serve as a means of developing skills. If a blended learning approach is desired, especially when education would transition to a hybrid environment, the focus may be deviated away from how much should be online and in-class and shifted to how much the curriculum design addresses the issues of teaching presence, which may not always be literal. The blended learning approach to be designed should ensure that cognitive engagement is also maximized through these means.

As the study revealed, if the goal of education, particularly of online learning, is to develop business skills, then attention should be given to the promotion of class interaction. Teachers should devise more ways to make their presence be more felt in the online classrooms (Law et al., 2018). This may be literal, but it could also mean designing the teaching-learning process well enough for the students to feel that the teacher is always there. Similarly, cognitive engagement must be encouraged and improved. As our partial mediation – partial least squares path model shows, even with a good level of performance and effort expectancy, the development of business skills would be minimal if class interaction is unsatisfactory.

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