Community of Inquiry During Covid-19 Pandemic: Does It Affect Accounting Student's Professional Skill?

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Abstract
Professional skills of accounting graduates are increasingly needed in the workforce during the sudden emergence of the COVID-19 pandemic, forcing accounting lecturers to organize online learning. Therefore, researchers seek to explore the role of online learning in the framework for the community of inquiry to develop the professional skills of accounting students in Indonesia. The data was obtained by distributing questionnaires to accounting students from 50 universities in Indonesia, and the researchers obtained 711 data. Testing was performed using JASP version 16. The test results show that cognitive presence has the highest role in developing students' professional skills, followed by social presence. Meanwhile, teaching presence only significantly affects the development of students' professional skills. The implication of this research is that every accounting lecturer needs to compile a curriculum and prepare resources to organize online learning that will likely be needed in the future.

Keywords: professional skill, a community of inquiry, online learning

Introduction
Workers who have professional skills are increasingly needed by the labour market (Barbosa et al., 2022; Berry & Routon, 2020; Wolcott & Sargent, 2021). Professional skills are known by various terms, such as generic skills, non-technical skills, and employability skills (Lansdell et al., 2020; Tan et al., 2022; Tan & Laswad, 2018). These skills are essential for professional accountants until IFAC (2019) published IES 3 Initial Professional Development – Professional Skills (2021). The objective of IES 3 is intended to build the right mix of skills that a professional accountant needs to function competently (Sarapaivanich et al., 2019). The standard articulation of the professional skills required to perform the role of a professional accountant in four areas of competence (IFAC, 2019) are intellectual skills (PSI), interpersonal and communication skills (PSIC), personal skills (PSP), and organizational skills (PSO). The question in this study is whether student professional skills can develop if the learning process is carried out using the online learning method.

Online learning strategies involve various aspects such as teaching, learning, assessment, student engagement, and environmental involvement, including family (Sangster et al., 2020). Therefore, all these aspects must be able to adapt quickly so that learning goals can still be achieved (Li & Yu, 2020). Unfortunately, online learning has several disadvantages. First, interpersonal relationships between students and students and between students and lecturers, which are important for the learning process, can be hampered (Abas et al., 2019; Christensen et al., 2019; Octaberlina & Muslimin, 2020). Second, most lecturers in Indonesia still need to be qualified to prepare curriculum and teaching to run online learning (Suhandiah et al., 2022). Third, most students in Indonesia need more time to be ready to take part in online learning (Listiqowati et al., 2022). Fourth, the internet network quality, software availability, and the supporting infrastructure for online learning in Indonesia still need to fulfil learning needs (Cahyadi et al., 2022; Octaberlina & Muslimin, 2020). As stated by Wang (2022), many problems arising in implementing online learning during the COVID-19 pandemic need to be resolved. The problems that need to be addressed are the unidirectional transmission of information, immature teaching platforms, the alienation of space and time between lecturers and students, and inconsistent student learning conditions. We do not know when the COVID-19 pandemic will end.

Meanwhile, implementing higher education in accounting is required to produce graduates with high professional skills, which are needed in competition in the workforce. Sangster et al. (2020) call it an educational management crisis that also occurs in accounting education. Thus, all parties involved in education must adapt quickly (Djajadikerta et al., 2021).

Garrison et al. (2000) developed a Community of Inquiry (CoI) that researchers conducting online learning research widely used. CoI is a comprehensive framework that seeks to explain the elements of successful online learning or effective learning experiences (Li et al., 2022). CoI consists of three elements of presence in the interrelated inquiry community, each of which is called social presence (SP), cognitive presence (CP), and teaching presence (TP) (Akyol & Garrison, 2008; Tan, 2021). CP is structured based on the inquiry learning cycle's four phases: triggering events, exploration, integration, and resolution (Garrison et al., 2000). SP has three dimensions: open communication, affective expression, and group cohesion, whereas TP covers three dimensions which are instructional management, building understanding, and direct instruction.

SP is the ability of students to connect and communicate with friends and form relationships with lecturers in their learning classroom (Akyol & Garrison, 2008). Through SP, student engagement in the learning process grows, and student freedom of expression is developed (Law et al., 2019) to bring out a sense of community (Kim et al., 2021). Therefore, the implementation of online learning needs to facilitate the establishment of strong interpersonal relationships between students and students and between students and lecturers. This is necessary to increase the engagement of students and lecturers in the learning process so that learning outcomes are easier to achieve.

CP is defined as the student's ability to build meaning through discussion and reflection while working in a CoI (Garrison, 2017). CP in CoI is in an environment that provides opportunities for students to build and confirm meaning through continuous reflection and critical discourse (Garrison et al., 2000). The element contributes to the COI due to its exploration and creation of collaborative information (Akyol et al., 2009). In the

context of a sudden change in learning methods during the COVID-19 pandemic, from face-to-face to online learning, CP needs to allow students to focus their learning on obtaining specialist knowledge in their respective disciplines (Cooper et al., 2020). For example, accounting students understand accounting concepts and apply accounting principles in carrying out business simulations that lecturers have prepared. Thus, CoI can also meet the needs of students to develop professional skills by providing opportunities to reflect and discuss theory and practice in communication, situational awareness, coordination, decision-making, negotiation, leadership, team building, and stress management (Brooks et al., 2018; Tena-Chollet et al., 2017).

TP refers to the design and organization of the teaching process perceived by learners (Anderson et al., 2001). TP has been shown to impact CP and SP positively but does not directly impact learning performance (Law et al., 2019). However, TP significantly predicts online learning success (Fiock, 2020). Therefore, in implementing online learning in the era of the COVID-19 pandemic, teachers who have comprehensive pedagogical skills are needed. These skills are needed to design meaningful learning for students (Ferrer et al., 2022; Rapanta et al., 2020). TP is needed in online classes. The design of online learning must follow the learning outcomes carried out during the pandemic to create effective learning.

Furthermore, it will trigger CP (Garrison et al., 2000; Waghid et al., 2021). The results of research by Caskurlu et al. (2020) show that TP is a good predictor for student satisfaction with the online learning they undergo. Therefore, lecturers need to make a learning design that follows their environment so that students are satisfied with participating in online learning (Fiock, 2020). The results of research by Law et al. (2019) show that TP and SP are two key social contextual support mechanisms in an online learning environment that positively affect the extent to which students feel satisfied with their basic psychological needs for autonomy, competence, and interrelationship.

In this study, researchers sought to examine the relationship between the CoI framework and the professional skills development of accounting students at several public and private universities in Indonesia during the COVID-19 pandemic. Researchers used three elements of CoI, SP, CP, and TP, and the four areas of competence of IES3 professional skills: PSI, PSIC, PSP, and PSO. Researchers also compared the relationship of each CoI element to each area of professional skill competence between male and female students and between universities with accreditation A and beside A. This research is very important because it can show the possibility of developing professional skills through online learning during the COVID-19 pandemic, which occurred so suddenly. The results of this study show that the development of professional skills of accounting students in Indonesia when experiencing learning with online methods during the COVID-19 pandemic is only influenced by social presence and cognitive presence while teaching presence does not affect these developments. The highest development of professional skills occurs in the PSP dimension, while the lowest development occurs in the intellectual competence area. When viewed from the gender side, the professional development of female accounting students' professional skills is higher compared to men. However, when viewed in terms of university accreditation rankings, there is no significant difference in the professional skills development of accounting students at universities whose accreditation ratings are A or not A.

Research Method

Several scientific approaches were taken to analyze this research model. The approach taken starts from the validity test using the confirmatory factor analysis (CFA) method, which focuses on the value of the loading factor of each operational item. The next test is a reliability test using the Cronbach Alpha method, item-rest correlation and split-half reliability indicated by Guttman values. The methods in the test are carried out to ensure that the operational items carried out in this research are confirmed and correctly represent the variables to be tested. Next, the testing of respondents was carried out with an independent sample t-test, a feasibility test of the model with ANOVA F-test, a coefficient of determination test (r^2) and finally, a significance test was carried out. The testing of this study used the JASP (Jeffreys's Amazing Statistics Program) 0.16 version. JASP is an open-source analysis software created by the Department of Psychological Methods, University of Amsterdam, The Netherlands. JASP can be downloaded for free from https://jasp-stats.org/download/. In this research, a series of tests were carried out with the aim that this research could clearly map the differences in respondents' points of view, focusing on control variables in the form of gender and university accreditation status.

Research data was collected by distributing questionnaires that had been designed based on previous studies. Researchers refer to research conducted by Arbaugh et al. (2008) to draft statements related to the CoI framework. The statement in the professional skills competence area was adopted by researchers from IES3 developed by IFAC (2019). The process of making this questionnaire has gone through several stages, such as double-back translation. Through the process, the statement items are translated from the original language (English) to Indonesian and then translated back to English. This is done as a preliminary step that serves to minimize errors in the interpretation of operational items. In addition, this questionnaire also ensures that it does not experience double-barreled questions that can cause double meanings of an item statement.

The first part of the questionnaire contains statements about the student's background, such as university origin, university year of entry, gender, and year of birth of the student. The second part consists of CoI measurement and professional skill competence. The questionnaire used a seven-point Likert scale, ranging from strongly disagreeing to strongly agreeing. The list of statements related to each variable is presented in Appendix 1. The questionnaires were distributed directly through Google Forms to accounting students at several universities in Indonesia using whatsapp.com media and through the contacts of their accounting lecturers.

Data collection was carried out from October 2020 to January 2021 and obtained 711 responses. A total of 573 respondents (80.6%) were female, and 138 respondents (19.4%) were male. The respondents came from 25 universities that have A accreditation and 25 universities whose accreditation is not A. The universities are located on six islands in Indonesia, consisting of Sumatra, Java, Madura, Bali, Kalimantan, and Sulawesi. The respondents were students in the final stages of the study. These criteria are used because respondents have experienced a different learning process, namely before the Covid-19 pandemic using the offline method, while during the pandemic, they used the online method. Thus, it is hoped that they will be able to answer the questionnaire more objectively. Researchers used multiple linear regression analysis to examine the effect of

the community of inquiry on professional skills. The following is the regression equation used in this study.

$PS = \alpha_0+\alpha_1TP+\alpha_2SP+\alpha_3CP+\alpha_4GENDER+\alpha_5ACR+\varepsilon$ ..... (1)

The variables of this study consist of three independent variables that are elements of CoI: Teaching Presence (TP), Social Presence (SP), and Cognitive Presence (CP). Then, the dependent variables used are Professional Skill (PS) which has four areas of competence: Professional Skill – Intellectual (PSI), Professional Skill-Interpersonal and Communication (PSIC), Professional Skill-Personal (PSP), and Professional Skill-Organization (PSO). The control variables in this study were gender (GENDER) and accreditation (ACR). ε is the symbol of the error term.

Result and Discussion

The study was conducted through several stages of testing. In the first stage, the researcher conducted validity tests on the operational items. In the second stage, the researchers conducted a coefficient of determination test (r^2) and a signification test. Furthermore, the researchers conducted an independent sample t-test on gender control variables and university accreditation which was deepened by the two-way ANOVA assessment. Here are the results of some of those testing stages.

The validity test results in Table 1 show that the measurement model in this study has good model accuracy. The items used are capable of being indicators of the measured contract. This is indicated by a low error value ($p < 0.001$) and a high factor loading component (Std. Estimate (All) > 0.4), in which the SP variable is represented by 9 items, the CP variable is represented by 9 items, the TP variable is represented by 12 items and the PS variable is represented by 4 operational items. Furthermore, validity testing showed a good feasibility value of the model with a comparative fit index (CFI) value of 0.867, a goodness of fit index (GFI) value of 0.749, and a root mean square error of approximation (RMSEA) of 0.078. Thus, the operational items used to measure each variable can be declared valid. The reliability test results shown in Table 1, show good results because each variable has an item-rest correlation value above 0.3 and a Cronbach and Guttman value above 0.8. This shows that the items used in this study are reliable so that they can proceed to the next test.

Multiple linear regression tests were performed to determine the effect of CoI elements on PS. The amount of effective contribution that the CoI variables (SP, CP, and TP) gave to the PS variables and each of the PS competencies area was indicated by the R2 value shown in Table 2. The table also shows the ability of the CoI variable to predict PS and all its competencies area indicated by the value of F with a significance value p

Table 1. Factor Loading and Reliability

Factor	Std. Estimate (All)	*p*	Reliability		
			Item-rest correlation	Cronbach's α	Guttman's λ2
SP	0.429 – 0.855	<0.001	0.336 – 0.712	0.874	0.884
CP	0.731 – 0.867	<0.001	0.673 – 0.797	0.941	0.942
TP	0.623 – 0.862	<0.001	0.532 – 0.738	0.952	0.953
PS	0.670 – 0.888	<0.001	0.759 – 0.776	0.959	0.960

Source: Processed Data 2022

<0.001. The results of the coefficient test show that the TP variable does not play a role in the development of professional skills of accounting students. This is indicated by an insignificant p value of p = 0.269 for the PS variable, p = 0.475 for the PSI variable, p = 0.292 for the PSIC variable, p = 0.402 for the PSP variable, and p = 0.306 for the PSO variable. Thus, the development of professional skills is only influenced by the SP and CP. In this analysis, it was found that CP has the greatest role in developing accounting student study programs in all professional skill competency areas. This is indicated by the CP on PS with a value of *t* = 12.110. Furthermore, in each PS competency area, there are PSI with a value of *t* = 10.988, in PSIC with a value of *t* = 9.621, in PSP with a value of *t* = 10.752, and in PSO with a value of *t* = 8.576. This is not in line with the theory presented by Garrison et al. (2000) that SP, CP, and TP are interrelated factors of which success indicate the achievement of effective learning. The success of online learning is largely determined by the appropriate learning design (Cooper et al., 2020; Ferrer et al., 2022; Fiock, 2020; Rapanta et al., 2020). These results are also not in line with research conducted by Tan (2021), who said that SP has a more dominant role in influencing student learning performance.

In this study, the failure of TP to influence the development of student's professional skills can occur due to the role of the internal and external environment of higher education institutions that are not ready and have not been able to run online learning (Cahyadi et al., 2022). As stated by Tan (2021), the sudden and surprising changes due to the emergence of the COVID-19 pandemic made many parties unprepared to run online learning. Before the pandemic happened, the implementation of accounting education learning in Indonesia has mostly used the face-to-face method. From an internal perspective, the curriculum in higher education was not originally designed for online learning. Lecturers are also not ready and do not have sufficient abilities in online learning planning which must be carried out suddenly due to the COVID-19 pandemic

Tabel 2. Linear Regression

Dependent Variable	R^2	F	p	Independent Variable	t	p
PS	0.621	381.901	<0.001	TP	1.105	0.269
				SP	10.895	*<0.001
				CP	12.110	*<0.001
PSI	0.569	307.289	<0.001	TP	0.715	0.475
				SP	9.903	*<0.001
				CP	10.988	*<0.001
PSIC	0.523	255.737	<0.001	TP	1.053	0.292
				SP	9.188	*<0.001
				CP	9.621	*<0.001
PSP	0.542	275.950	<0.001	TP	0.839	0.402
				SP	8.660	*<0.001
				CP	10.752	<0.001
PSO	0.467	203.831	<0.001	TP	1.024	0.306
				SP	8.126	*<0.001
				CP	8.576	*<0.001

Note: * significant at the 0.05 level
Source: Processes Data, 2022

(Punjani & Mahadevan, 2022). Previously, lecturers gave verbal instructions directly to students. Meanwhile, when using online learning, there is a possibility that the delivery of learning instructions delivered by lecturers cannot be captured properly by students (Almaiah et al., 2020), which results in students preferring to study independently in order to achieve learning outcomes. It is also likely that the university has not prepared hardware and software that is suitable for running online learning (Rahayu et al., 2022). From the external side, the suddenly high need for an internet network has not been prepared by an internet network provider (Cahyadi et al., 2022). The purchasing power of the community, which has decreased due to the impact of the COVID-19 pandemic, of course, also affects the readiness of students in providing devices, both hardware and software needed to follow the learning process. Therefore, it is necessary to adjust quickly both from the internal and external environment so that online learning can run effectively.

The results of this study show that CP has the highest role in influencing the development of students' professional skills. Students focus more on interpreting the learning experiences gained rather than having good communication with friends or with lecturers. This can happen because of the difficulties experienced by students in using online-based learning media. Students are still not used to using the learning management system (Lestari et al., 2019). In the pre-pandemic COVID-19, previous learning, students were facilitated to collect learning outcomes directly from lecturers and interact directly with both lecturers and friends (Saragih et al., 2021). The results of this study are not in line with research conducted by Tan (2021) in Malaysia, which states that SP has a higher role when compared to CP and TP. This happened because students in Malaysia felt more interested in using new learning media. Students feel that they are given freedom of expression to complete assignments in class using various communication media. The student has an intense interaction with fellow students and lecturers. The research conducted by Englander & Russell (2022) in Canada is in line with this study. Englander & Russell (2022) said that students and lecturers felt the lack of SP in achieving learning outcomes. This happens because students find it difficult to establish interaction between students.

Independent testing of the sample t-test was carried out to test the variables of professional skills with control variables of gender and accreditation. The test results in Table 3 show that the PS variable and all its competency areas (PSI, PSIC, PSP, PSO) with gender variables have *p* value of <0.05. This shows that there are significant differences in the development of students' professional skills between females and males. The development of female professional skills in all dimensions is higher when compared to

Table 3. Independent Sample T-Test – Gender and Accreditation

Dependent Variable	Gender			Accreditation		
	t	df	p	t	df	p
PS	3.095	701	0.002	-0.296	701	0.767
PSI	2.403	701	0.017	-0.015	701	0.988
PSIC	2.856	701	0.004	-0.470	701	0.639
PSP	3.211	701	0.001	-0.109	701	0.913
PSO	2.933	701	0.003	-0.487	701	0.626

Source: Processed Data, 2022

male students. The difference is indicated by the mean value seen in the descriptive plots in Figure 1.

The difference in the development of professional skills is the highest seen in the PSP competency area, and the PSI competency area indicates the lowest development. The PSP competency area relates to a person's personal behaviour related to professional accountants (IFAC, 2019). Meanwhile, the PSI competency area is related to the ability of a professional accountant to solve problems, make decisions, adapt to changes, and conduct professional assessments (IFAC, 2019). During online learning that took place during the COVID-19 pandemic, all regions in Indonesia were put on lockdown. This makes the area of intellectual competence (PSI) less developed because students are not easy to explore to solve problems to make decisions on cases that must be solved according to the instructions of lecturers in learning. When undergoing online learning, students tend to need direct interaction with friends and lecturers to discuss problems that must be solved (Heriyanto et al., 2022). Students and lecturers are important to establish communication together, work hard together, and create opportunities to cultivate students' intellectual abilities (Sugawara et al., 2020). Therefore, lecturers need to develop clear, direct instruction and provide extra assistance to students during the learning process (Cooper et al., 2020; Ferrer et al., 2022) so that students' professional skills development. Meanwhile, the area of personal competence (PSP) is the most developed because students are conditioned to learn in an independent way. Students are forced to complete their own learning assignments. Thus, the personal abilities of accounting students are more developed when undergoing online learning during the COVID-19 pandemic.

An Independent sample t-test was also carried out on PS with accreditation control variables. The test results in Table 3 show that all competencies area of the PS variable with the accreditation as a control variable have *p* value >0.05. This shows that there is no significant difference in the development of professional skill accounting students at universities that have A accreditation or non-A accreditation. These results are supported by the mean value, which appears in Figure 2, which shows an insignificant

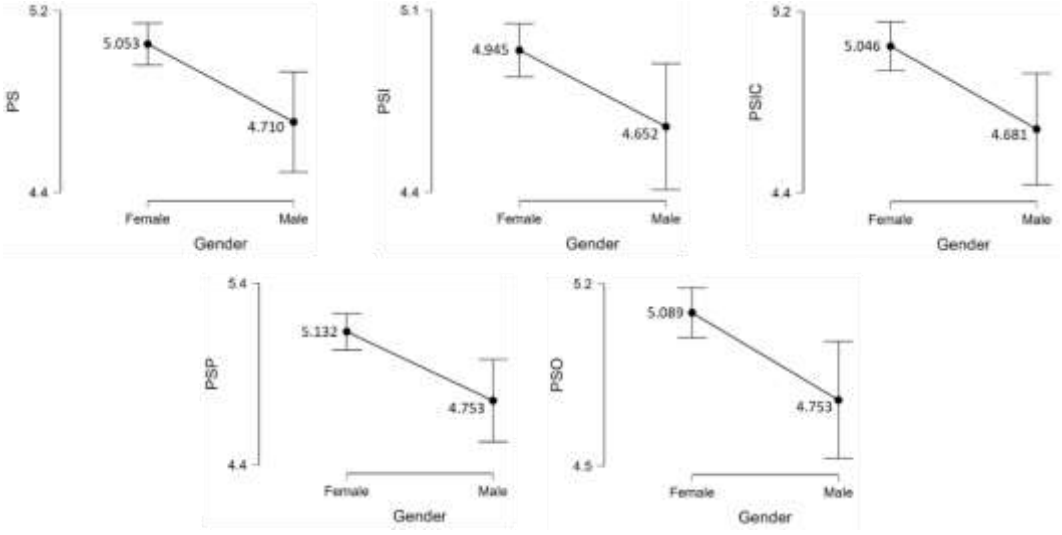

Figure 1. Descriptive Plots Independent Sample T-Test– Gender

Source: Processed Data 2022

difference in the development of professional skills of students at universities that have A accreditation and the development of professional skills of students at universities whose accreditation is not A. This can happen because, during the lockdown period, students lose motivation to study (Akhter et al., 2022; Octaberlina & Muslimin, 2020). They still need self-adjustment because of the change in face-to-face learning methods to online learning methods (Jaca, 2022). This is in line with the results of Tan's research (2021), which state that students are unable to achieve learning outcomes because they do not have high motivation, unlike when attending lectures with the face-to-face method. There is no significant difference in the development of professional skills, which can also be influenced by the ability of lecturers to prepare for online learning (Djajadikerta et al., 2021). This shows that the ability of lecturers to prepare online learning between universities that have an accreditation rating of A and not A is not much different.

More deeply, the test was carried out using a two-way ANOVA. The test was carried out to compare the development of professional skills of accounting students based on independent variables of SP and CP in terms of student gender and university accreditation rankings. The TP variable is not included in this test because it does not significantly affect the development of professional skills. When viewed from gender variables, Figure 3 shows that both male SP and female CP have a higher tendency to influence the development of PS. When CP and SP are low, females have a higher tendency than males to influence the development of PS. When CP is high and SP is low, females have a higher tendency than males to influence the development of PS. As for low CP and high SP, males have a higher tendency than females to influence the development of PS. When CP and SP are high, males tend to influence PS development more than females.

This is not in line with the results of a study by Lau et al. (2021), conducted in Hong Kong, which showed that there were no significant differences between genders in each element of the CoI. Likewise, the research conducted by Erdoğmuş et al. (2021) and

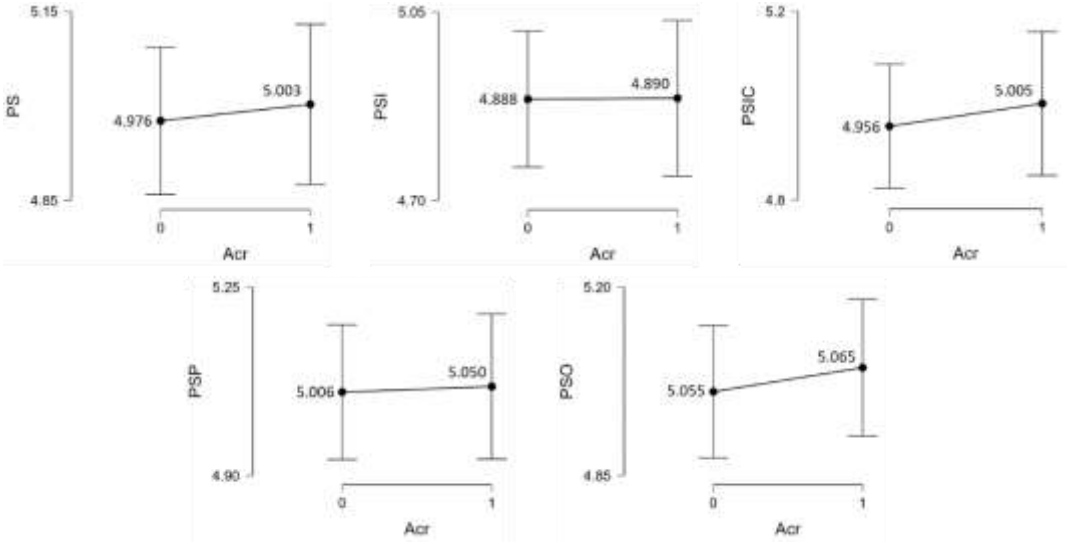

Figure 2. Descriptive Plots Independent Sample T-Test – Accreditation
Source: Processed Data 2022

McLure et al. (2022) states that there is no difference in behaviour between men and women in following online learning. However, the results of research by McLure et al. (2022) show that students, both men and women, are more motivated to follow learning that combines online learning and face-to-face methods. With this combination of methods, students become more eager to engage and participate more fully in the learning process because the instructions delivered by lecturers are more challenging and even require them to correct mistakes in the assignments they have collected.

According to Wut & Lee (2021), in online learning, male students are more excited because they are more interested in the devices used in learning. Male students can use more learning strategies and have better technical skills than girls (Yu, 2021). Meanwhile, female students have more self-regulation and attach importance to the content of the message conveyed in learning (Alghamdi et al., 2020). Alghamdi et al. (2020) say that female students are more confident in their metacognitive abilities needed to use some strategies to manage learning and perform their tasks successfully. Although, findings regarding gender differences in online learning outcomes tend to be inconsistent and even paradoxical (Yu, 2021). In this study, the SP of male students was higher because, in online learning, the students were free to express themselves by exploring through the internet. Meanwhile, the CP of female students is higher because they are more concerned with interpreting and reflecting on the learning they experience.

Although there are no significant differences that affect the professional development of accounting students' professional skills in terms of accreditation rankings (Figure 2), Table 3 also shows that when CP students at universities of which accreditation

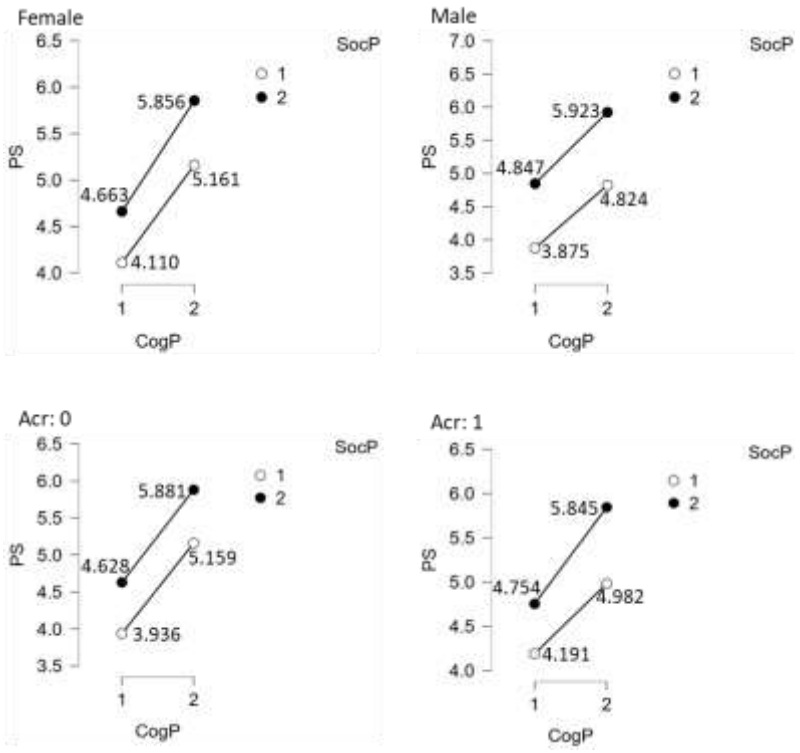

Figure 3. Discriptive Plots Two-Way ANOVA – Gender and Accreditation
Source: Processed Data 2022

rank is not A have a higher tendency to influence the development of student professional skills, and vice versa. At a time when CP is low and SP is low in universities of which the accreditation rating is A, it has a higher tendency to influence the development of PS. When CP is high and SP is low in universities whose accreditation rating is not A, it has a higher tendency to influence the development of PS. At a time when CP is low and SP is high in universities of which the accreditation rating is A, it has a higher tendency to influence the development of PS. At a time when CP is high, and SP is high in universities of which accreditation ratings are not A, it has a higher tendency to influence the development of PS.

Conclusion

This research was conducted to explore the relationship between CoI and the development of professional skills of accounting students in Indonesia. The study results show that the online learning method has developed students' professional skills, although the development only occurs in some areas of competence. That happens because the learning process needs to be running more effectively. The results of this study support the CoI framework presented by Garrison et al. (2000) that learning can be said to be effective if there is a linkage between each CoI element (SP, CP, and TP). However, the results showed that the learning process of accounting study programs at several universities in Indonesia still needs to be said to be effective because there is no interrelationship between the three elements of the CoI. This study found that during online learning during the COVID-19 pandemic, TP did not affect the development of accounting students' professional skills. Professional skills of which development is the greatest are found in the professional skills personal area. Another finding in this study was that there were no significant differences in the development of professional skills of students at universities with accreditation ratings of A and non-A. Furthermore, it was found that male students tend to have a high SP when compared to female students. Meanwhile, female students have a high CP tendency when compared to male students. Finally, although there is no significant difference in the development of professional skills in the university accreditation ranking, it is found that the cognitive presence of students at universities of which the accreditation rating is not A is higher when compared to universities of which the accreditation rating is A.

In addition, the limitation of this research is that it is only carried out in accounting study programs at several universities in Indonesia, which of course, the results of this research cannot be generalized extensively. Next, researchers can add surveys to study programs in other economic sciences. This research also needs to be complemented by a survey of lecturers' experiences in preparing online learning designs during the sudden emergence of the COVID-19 pandemic or in other emergency conditions. This is necessary to clarify the readiness and ability of lecturers in Indonesia to manage online learning, especially for accounting study programs in the future.

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Appendix

Appendix 1. List of Questionnaire Statements

Variable	Code	Measurement Statements
TP	TP1	Lecturer communicates the learning theme
	TP2	Lecturers communicate learning achievements
	TP3	Lecturers give clear instructions for doing assignments
	TP4	Lecturer informs the deadline for submitting assignments
	TP5	Lecturers help students in the learning process
	TP6	Lecturers help students to clarify students' ways of thinking
	TP7	Lecturers help students stay involved and participate in the learning process
	TP8	Lecturers help students to focus on doing assignments
	TP9	Lecturers encourage students to explore new ideas
	TP10	Lecturers discuss issues that enrich the learning process
	TP11	Lecturers provide feedback according to student needs
	TP12	Lecturers provide feedback according to the agreed time
SP	SP1	Lecturers from a learning atmosphere into a learning community
	SP2	Getting to know my classmates makes me have a sense of belonging to the learning process
	SP3	I have different impressions of classmates
	SP4	I feel comfortable participating in online discussions
	SP5	I feel comfortable interacting with classmates through online
	SP6	Online discussions help me develop a collaborative atmosphere
	SP7	I feel comfortable disagreeing with other people's opinions
	SP8	I feel comfortable to talk in online learning
	SP9	I feel my views or opinions are accepted by my friends
CP	CP1	The problems posed in learning increase my interest in learning
	CP2	Learning activities increase my curiosity.
	CP3	I am motivated to explore material related to the theme or topic of learning
	CP4	I use various learning resources during the learning process
	CP5	I conduct discussions in order to find information relevant to the task
	CP6	Online discussion helps me to appreciate different points of view
	CP7	Putting together new information helps me to answer questions
	CP8	Learning activities help me to provide solutions
	CP9	I feel helped by the process of reflection and discussion of learning materials
PS	PSIC1	Online learning improves my ability to work in a team
	PSIC2	Online learning improves my ability to work with colleagues
	PSIC3	Online learning improves my ability to give opinions to solve problems
	PSP1	Online learning makes me set high standards for myself

	PSP2	Online learning gives me the opportunity to reflect
	PSP3	Online learning enables me to anticipate challenges
	PSO1	I agree that online learning makes me disciplined in submitting assigned tasks
	PSO2	Through online learning training my leadership to influence others
	PSO3	Through online learning I am trained to delegate tasks to my colleagues

Notes:

TP	: Teaching Presence
SP	: Social Presence
CP	: Cognitive Presence
PS	: Professional Skill
PSI	: Professional Skill – Intellectual
PSIC	: Professional Skill – Interpersonal and Communication
PSP	: Professional Skill - Personal
PSO	: Professional Skill - Organizational