The Challenges Faced by Thai Pre-service Teachers in Virtual English Classrooms during the COVID-19 Pandemic

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Abstract

The objective of this study was to investigate potential challenges face by Thai pre-service teachers in the virtual English classrooms during the COVID-19 pandemic. The instrument used in this study was a questionnaire adopted from Dima H. and AlmanlN (2021). It consisted of two parts which were the demographic information (3 items) and students' attitudes (52 items) which aimed to determine the effect on the students' experience in 7 domains of challenges: infrastructure, computer skills, coordination, teaching methods, motivation & amp; willingness, assessment methods, and social aspects. The questionnaire was distributed to 317 pre-service teachers: 177 first – year, and another 140 fourth- year pre-service teachers. All were studying in 10 different majors in faculty of Education. The collected data was analyzed by using Microsoft Excel to calculate the mean score and standard deviation. The results shown that the most difficult challenges faced by the first - year and fourth – year pre-service teachers were different due to their learning experience. The social aspects domain was in the highest degree for the first-year pre-service teachers (3.62), whereas the highest degree for the fourth – year pre-service teachers was the teaching method domain (3.52). On the contrast, the infrastructure domain was in the lowest degree for the first-year pre-service teachers (2.81) while it was in the moderate degree for the fourth-year pre-service teachers (3.34). Also, the most potential challenge faced by fourth year pre-service teachers was teaching method domain (3.52) whereas it was in the moderate degree for the first-year pre-service teachers (3.30).

Keywords-; online learning; virtual classroom; challenges; pandemic

INTRODUCTION

Since the outbreak of novel COVID-19 first broke out in Wuhan, China and became a global concern (Lau, Khosrawipour, Kocbach, Mikolajczyk, Schubert, Bania, Khosrawipour, 2020), all nations including Thailand have been enormously impacted by the pandemic in various aspects. To alleviate the crisis, Thai government has carried out the diverse policies to control the disease including a nation-wide lockdown, curfews, business and school closures, social distancing, and 14-day quarantine for international travelers (Rajatanavin, Tuangratananon, Suphanchaimat, Tangcharoensathien, 2021; Pongutta, Kantamaturapoj, Phakdeesettakun, Phonsuk, 2021). Therefore, the digital communication in all Thai sectors was increasingly shifted to fulfil the declarations. One of the affected issues widely found was accessing the quality education during the mist of COVID-19 (Pariwat, 2020; Pongutta, Kantamaturapoj, Phakdeesettakun, Phonsuk, 2021) due to the school and university closure. However, to obligate the bills and continue the education, all schools and universities transformed their physical classrooms to the virtual one where students and teachers were forced to learn and teach differently.

Thus, the Ministry of Higher Education, Science, Research and Innovation (MHESRI) suggested Thai universities to conduct the synchronous online learning environment instead of a face-to-face learning via various forms of technology in order to prevent the spread of the symptom. (Ministry of Public Health, 2020; Thomas, Tzung & Kirsti, 2021). Michael (2020) stated the term of the virtual classroom tutorial that it was conducted in a very similar manner as the face-to-face classes. However, the virtual classroom link was created within the learning management system (Blackboard) so students were

advised to join the session ten to 15 minutes prior to the commencement of the tutorial. Its allow both teachers and students to communicate, share, and exchange their ideas through this platform. However, the virtual learning platform has become the imperative in promoting and sustaining educational development globally including in English class during the pandemic.

During the era of COVID -19 outbreak, numerous researchers have questioned about the validity and obstacles of fully-fledged online classes e.g. Adnan and Anwar (2020) examined the attitudes of Pakistani higher education students towards online learning amid (COVID-19). It was found that online learning could not yields the intended results in countries like Pakistan because the students and instructors did not obtain the proper access to the internet and had inadequate training and the financial resources. Likewise, Aminullah et al. (2019) observed that though some teachers held positive attitudes towards ICT, others still faced many problems such as lacking support from institutions, ICT equipment, and adequate training. Along with, Baber (2020) examined students' attitudes towards online learning during Covid19 pandemic in India and South Korea found that students held positive perception towards online learning aspects such as interaction, motivation, course structure, instructor knowledge, and facilitation. Also, they perceived satisfied with the learning outcome.

A virtual classroom regarded as the replacement of the physical classrooms amid the COVID-19 crisis. Many students including Thai students were vulnerable to falling behind in their studies or experience additional challenges. This study aimed to investigate potential challenges faced by Thai pre-service teacher towards English virtual classrooms.

In addition to a study of Cuiying ZouID, Ping Li, and Li Jin (2021) who conducted the research to evaluate their readiness for online English education during the COVID-19 pandemic encountered by 2,310 non- English major college students and 149 English teachers from higher education institutions in Wuhan and to draw future implications for online in English education.

OBJECTIVE OF THE STUDY

To investigate the potential challenges toward English virtual classrooms from the perspectives of first year and fourth year pre-service teacher students

PREVIOUS STUDIES

It has been discussed in various studies about the challenges encountered by EFL leaners for online learning. For example, a study of Hijazi and Alnatour (2021) that investigated the challenges found in online learning faced by EFL students who enforced to attend the online virtual classrooms during the 2019/2020 summer semester at Yarmouk University while the COVID-19 Pandemic took place. The results showed that teaching methods, social aspects, infrastructure, computer skills, and coordination were in the high level, whereas, assessment methods, motivation & willingness were in a moderate level. In addition to a study of Cuiying ZouID, Ping Li, and Li Jin (2021) who conducted the research to evaluate their readiness for online English education during the COVID-19 pandemic encountered by 2,310 non- English major college students and 149 English teachers from higher education institutions in Wuhan and to draw future implications for online in English education. An analysis of qualitative results summarized six categories of challenges encountered by the students, i.e., technical challenges, challenges concerning learning process, learning environment, self-control, efficiency and effectiveness, and health concern. Quantitative statistics gathered using two readiness scales showed that both cohorts were slightly below the ready level for the unexpected online transition of college English education.

METHODOLOGY

A. Participants

The participants of this study were divided into two groups. The first group consisted of 177 first year and another 140 fourth year students. Both groups were from 10 majors (Thai, General Science, English Education, Mathematics, Computer Education, Music Education, Chemistry, Early Childhood, and Physical Education) of Faculty of Education. All participants were native Thai speakers who study English as a Foreign language.

B. Instrument of the Study

The research instrument was questionnaire adopted from the study of Dima H. and AmalN. (2021). The questionnaire consisted of two parts; demographic and students' attitudes toward virtual English classrooms which included 52 items; 7 domains: infrastructure (item 1–11), computer skills (item 12–16), coordination (item 17–24), teaching methods (item 25–32), motivation (item 33–39), assessment methods (item 40–47), and social aspects (item 48–52). All part of the questionnaire was translated into Thai. To gather the data, the questionnaire was distributed via the google form. A five-point Likert-scale questionnaire was employed in this questionnaire which are: strongly agree, agree, moderate, disagree, and strongly disagree.

The responses of the study sample were classified after the adoption of a relatively gradual statistical model with a view to making judgments about the means of the questionnaire and its domains as follows:

Table1: Degree of challenge and assigned value

Degree	Category
High	3.50 and more
Moderate	2.50-3.49
Low	Less than 2.49

C. Data analysis

The collected data was analyzed by using Microsoft Excel to calculate the mean score and standard deviation.

RESULTS

The results obtained were divided into two parts.

Part 1: Participants' demographic

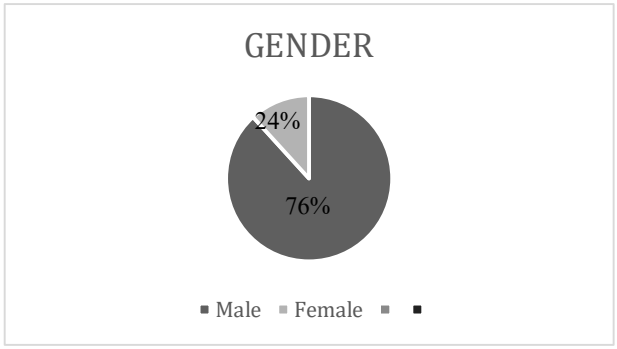

Fig.1: Participants' gender

There were 317 students participated in this study which were 77 males (24.3%) and 240 females (75.7%) as shown in the Fig.1.

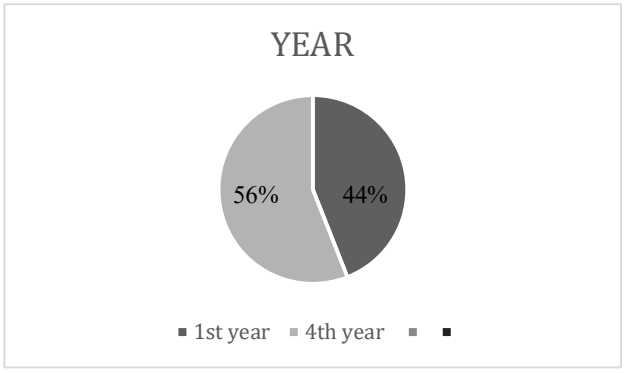

Fig. 2: Participants' year of study

There were 177 first year pre-service students (56%), and 140 fourth years pre-service students (44 %) participated as shown in Fig. 2.

Part 2: The result of students' responses to the domains

The result of students' responses to the domains as seen in Fig. 3, shows the overall percentage of participants' responses to the 7 domains faced by the first year and fourth year pre-service teachers. As illustrated, the level of social aspects domain faced by both the first-year pre-service teachers and the fourth-year pre-service teachers reached the highest level (70.1%) and (72.47%). On the other hand, the lowest level of coordination faced by the first-year pre-service teachers was at 56.05% while the computer skill domain faced by the fourth-year pre-service teachers was at 59.08%.

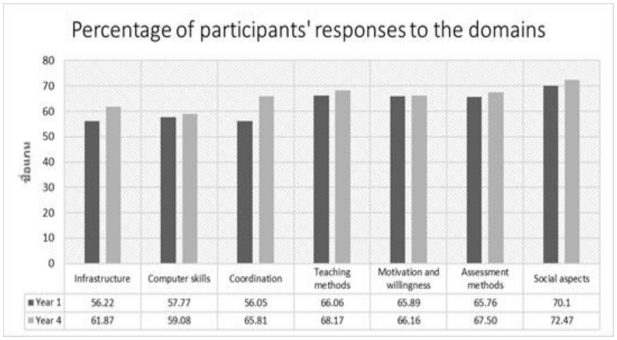

Fig . 3: the percentage the results of students' responses to the domains of first year and fourth year pre-service teachers

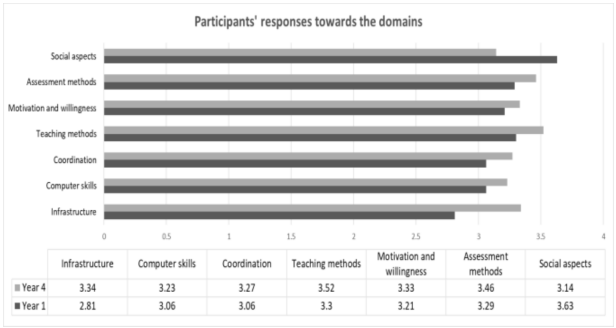

Fig . 4: the $\bar{X}$ of the students' responses to the domains of first year and fourth year pre-service teachers

As displayed in the Fig. 4, the overall of the results of first year and fourth year pre-service teachers ranged between 2.80 and 3.50. Challenges focused on the areas of social aspects ($\bar{X}$ =3.50) which was only one domain had high degree of challenges. While, Teaching methods ($\bar{X}$ =3.30), Assessment methods ($\bar{X}$ =3.29), Motivation and willingness ($\bar{X}$ =3.29), Computer skills ($\bar{X}$ =2.88), Coordination ($\bar{X}$ =2.81), and Infrastructure ($\bar{X}$ =2.80) had moderate challenge degree.

Likewise, the means of the questionnaire domains of year 4 ranged between 2.95 and 3.64. Challenges focused on the areas of social aspects ($\bar{X}$ =3.64) which the most one domain that had high degree of challenges. While, Teaching methods ($\bar{X}$ =3.41), Assessment methods ($\bar{X}$ =3.38), Motivation and willingness ($\bar{X}$ =3.31), Coordination ($\bar{X}$ =3.29), Infrastructure ($\bar{X}$ =3.09), and Computer skills ($\bar{X}$ =2.95) had moderate challenge degree.

I find difficulties in writing emails and sending messages via the e- learning since they are almost the only means to communicate with the instructor.	2.60	Moderate	3.32	Moderate
I need training on computer skills and online usage.	3.65	High	3.20	Moderate
Average	**3.06**	**Moderate**	**3.23**	**Moderate**

1) The response of each domain

a) Infrastructure

Items	Levels of agreement			
	Year 1		Year 4	
	x̄	Degree	x̄	Degree
I sometimes do not have easy access to the Internet.	2.81	Moderate	3.34	Moderate
The links used for online lectures are difficult to be accessed.	3.00	Moderate	3.23	Moderate
I find it hard to access the university platforms (e.g., eLearning).	2.58	Moderate	3.34	Moderate
It takes time to access and attend the lesson.	3.09	Moderate	3.43	Moderate

Table 3: the students' responses to the infrastructure domain of first year and fourth year pre-service teachers

As displayed in Table 3, the average score of the result of first year and fourth year pre-service teachers was moderate ($\bar{X}$ =2.81), ($\bar{X}$ =3.34). On item "*I cannot sometimes understand the instructor's explanation because his/her voice is not clear*" , the result of first year pre-service teachers was highest ($\bar{X}$ =3.62). On item "*I don't have a computer, a laptop or a mobile phone*" shown that the results of first year pre-service teachers were the lowest ($\bar{X}$ =1.91), ($\bar{X}$ =2.07). While, on item "*The time of the online lectures is within the time of the university working hours"*, the results of fourth year pre service teachers was the highest ($\bar{X}$ =3.80)

The infrastructure (the required software, hardware materials and personals used to achieve a productive learning) was not ready for online learning.	2.81		3.62	High
The sessions are suddenly disconnected.	3.02	Moderate	3.64	High
I cannot sometimes understand the instructor's explanation because his/her voice is not clear.	3.62	High	3.47	Moderate
The number of students in each online session is not high.	2.61	Moderate	3.46	Moderate
The time of the online lectures is within the time of the university working hours.	3.52	Moderate	3.80	High
The available computers and mobile phones are not updated or not compatible for e-learning.	2.52	Moderate	3.33	Moderate
I don't have a computer, a laptop or a mobile phone.	1.91	Low	2.07	Low
Average	**2.81**	**Moderate**	**3.34**	**Moderate**

b) Computer skill

Items	Levels of agreement			
	Year 1		Year 4	
	x̄	Degree	x̄	Degree
It is difficult to apply computer skills.	3.53	High	3.05	Moderate
I have limitations using computer keyboard.	2.30	Low	2.94	Moderate
I find it easy to use interactive applications (e.g., Zoom Inc., Microsoft Teams).	3.20	Moderate	3.62	High

Table 4: the students' responses to the computer skill domain of first year and fourth year pre-service teachers

As displayed in Table 4, the average of the result of first year and fourth year pre-service teachers was moderate ($\bar{X}$ =3.06), ($\bar{X}$ =3.23). On item *"I need training on computer skills and online usage"*, shown that first year pre-service teachers was the highest ($\bar{X}$ =3.65). Meanwhile, on item "*I have limitations using computer keyboard",* shown that first year pre-service teachers was the lowest ($\bar{X}$ =2.30). In addition, on item "*I find it easy to use interactive applications e.g., Zoom Inc., Microsoft Teams*" shown that fourth year pre-service teachers were the highest ($\bar{X}$ =3.65). Meanwhile, on item "*I have limitations using computer keyboard*" shown that fourth year pre-service teachers were the lowest ($\bar{X}$ =2.94).

c) Coordination

Items	Levels of agreement			
	Year 1		Year 4	
	x̄	Degree	x̄	Degree
I sometimes feel distracted due to lack of teacher's control over the lecture.	3.58	High	3.77	High
The syllabus was clear.	3.55	High	4.02	High
I know the set of rules that should be followed during the online lecture.	3.88	High	3.38	Moderate
The make -up exams' time is not always clear.	2.68	Moderate	3.54	High
The professors understand the technical difficulties encountering the students.	3.34	Moderate	3.48	Moderate
I can easily deliver the difficulties I encountered during the semester to the instructor.	2.41	Low	3.53	High
Lecture time is not enough.	2.50	Moderate	3.37	Moderate
There are technical problems that the teacher can't solve during the lecture.	2.53	Moderate	3.41	Moderate
Average	3.06	Moderate	3.56	High

Table 5: the students' responses to the coordination domain of first year and fourth year pre-service teachers

As displayed in Table 4, the overall of the result of first year and fourth year pre-service teachers was moderate ($\bar{X}$ =3.06), ($\bar{X}$ =3.23). On item I need training on computer skills and online usage shown that first year pre-service teachers was the highest ($\bar{X}$ =3.65). Meanwhile, on item "*I have limitations using computer keyboard"* shown that first year pre-service teachers was the lowest ($\bar{X}$ =2.30). In addition, on item "*I find it easy to use interactive applications e.g., Zoom Inc., Microsoft Teams*" shown that fourth year pre-service teachers was the highest ($\bar{X}$ =3.65). Meanwhile, on item "*I have limitations using computer keyboard*" shown that fourth year pre-service teachers was the lowest ($\bar{X}$ =2.94).

d) Motivation and willingness

Items	Levels of agreement			
	Year 1		Year 4	
	x̄	Degree	x̄	Degree
Online learning appropriately improves my productive skills (writing and speaking).	2.90	Moderate	3.16	Moderate
Online learning does not enhance me critical thinking and problem - solving skills.	3.64	High	3.57	High
Online learning can customize learning for each student's strengths, needs, skills and interests.	3.10	Moderate	3.33	Moderate
Online learning focuses mainly on listening skills.	3.60	High	3.66	High
Online learning leads to few cooperatively done tasks.	3.30	Moderate	4.01	High
Online learning enhances tactile or kinesthetic learning methods (Learning by doing).	2.90	Moderate	3.03	Moderate
It focuses on memorization over learning core competencies methods.	3.10	Moderate	3.61	High
The lecturer uses different resources such as videos, music sessions, or others to deliver ideas.	3.80	High	3.81	High
Average	**3.29**	**Moderate**	**3.52**	**Moderate**

Table 6: the students' responses the teaching methods domain of first year and fourth year pre- service teachers

As displayed in Table 6, the average of the result of first year and fourth year pre-service teachers was moderate ($\bar{X}$ =3.29), ($\bar{X}$ =3.52). On item "*The lecturer uses different resources such as videos, music sessions, or others to deliver ideas*" shown that first year pre-service teachers was the highest ($\bar{X}$=3.80). Meanwhile, on item *"Online learning appropriately improves my productive skills (writing and speaking)"* shown that first year pre-service teachers were the lowest ($\bar{X}$ =2.88). In addition, "*Online learning leads to few cooperatively done tasks*" shown that fourth year pre-service teachers was the highest ($\bar{X}$ =4.01). Meanwhile, on item "*Online learning enhances tactile or kinesthetic learning methods (learning by doing)*". shown that fourth year pre-service teachers was the lowest ($\bar{X}$ =3.03).

e) Motivation and willingness

Items	Levels of agreement			
	Year 1		Year 4	
	x̄	Degree	x̄	Degree
Online learning is convenient for my time and place and it does not interfere with my sleeping times.	3.20	Moderate	3.69	High
The cost of online learning is less because of no transport expenses.	3.69	High	3.41	Moderate
I would have better education if I were in a physical classroom.	3.82	High	3.81	High
I enjoy online classes because different methods are used.	2.18	Low	2.42	Low
I prefer the semester to be postponed.	3.11	Moderate	3.38	Moderate
I benefit a lot from online lessons.	3.10	Moderate	3.14	Moderate
Online learning makes it easy for the lecturer to present different methods and resources of learning.	3. 23	Moderate	3.37	Moderate
The materials are available, and records can be accessed more than once.	3.35	Moderate	3.49	Moderate
Average	**3.21**	**Moderate**	**3.34**	**Moderate**

Table 7: the students' responses the motivation and willingness domain of first year and fourth year pre-service teachers

As displayed in Table 6, the average of the result of first year and fourth year pre-service teachers had moderate degree ($\bar{X}$ =3.21), ($\bar{X}$ =3.34). On item "*I would have better education if I were in a physical classroom"* the results of first year and fourth year pre-service teachers was highest among other items ($\bar{X}$ =3.82), ($\bar{X}$ =3.81). In the same way, on item "*I enjoy online classes because different methods are used"* shown that the results first year and fourth year pre-service teachers was highest among other items ($\bar{X}$ =2.18), ($\bar{X}$ =2.42).

f) Assessment Methods

Items	Levels of agreement			
	Year 1		Year 4	
	x̄	Degree	x̄	Degree
The assessment methods evaluate the level of knowledge only.	3.60	High	3.38	Moderate
Online learning increases the chances of cheating.	3.75	High	3.84	High
I obtain the necessary feedback because the assessments are not generally computer marked.	3.40	Moderate	3.49	Moderate
I'm assessed in suitable and varied ways.	3.36	Moderate	3.45	Moderate
Multiple choice is the best way to test my knowledge.	2.35	Low	3.39	Moderate
The questions of the tests suit the different levels of students.	2.30	Low	3.46	Moderate
The number of tests taken during the semester is fair enough to measure the objectives of the course.	3.40	Moderate	3.44	Moderate
The time of the test is enough.	3.25	Moderate	3.20	Moderate
Average	**3.18**	**Moderate**	**3.46**	**Moderate**

Table 8: the students' responses the assessment methods domain of first year and fourth year pre- service teachers

As displayed in Table 8, the average of the result of first year and fourth pre-service teachers was moderate ($\bar{X}$ =3.06), ($\bar{X}$ =3.46). On item "*Online learning increases the chances of cheating"* the results of first year and fourth pre-service teachers we highest ($\bar{X}$ =3.75), ($\bar{X}$ =3.84) While, on item "*The questions of the tests suit the different levels of students*" shown that the results of first year pre-service teachers were the lowest ($\bar{X}$ =2.30). While, on item *"The syllabus was clear*" the results of fourth year pre-service teachers were lowest ($\bar{X}$ =3.20).

g) Social Aspects

Items	Levels of agreement			
	Year 1		Year 4	
	$\bar{x}$	Degree	$\bar{x}$	Degree
Online learning lacks personalized connection with the instructors.	3.85	High	3.35	Moderate
It lacks the time needed for students to develop appropriate social skills.	3.70	High	2.65	Low
Discussions during assignments are limited.	3.20	Moderate	3.18	Moderate
Social interaction between students is limited.	3.75	High	3.36	Moderate
Average	**3.63**	**High**	**3.14**	**Moderate**

Table 9: the students' responses the social aspects domain of first year and fourth year pre-service teachers

As displayed in Table 9, the average of the result of first year pre-service teachers was high ($\bar{X}$ =3.63) the result of first year pre-service teachers was moderate ($\bar{X}$ =3.56). On item "*Online learning lacks personalized* connection with *the instructors*" the results of first year pre- service teachers were highest ($\bar{X}$ =3.85). While, on item "*Discussions during assignments are limited"* shown that the results of first year pre-service teachers were the lowest ($\bar{X}$ =3.20). In addition, on item "*Social interaction between students is limited"* the results of fourth year pre- service teachers were highest ($\bar{X}$ =3.36). Meanwhile, on item "*It lacks the time needed for students to develop appropriate social skills*" shown that the results of fourth year pre-service teachers were the lowest ($\bar{X}$ =2.65).

CONCLUSION AND DISCUSSION

The challenges faced by first year and fourth year preservice teachers are different. The challenges faced by first year preservice teachers from the highest to the lowest degree, is as follows: social aspects, assessment methods, motivation and willingness, computer skills, coordination, and infrastructure. On the other hand, the challenges faced by fourth year preservice teachers from the highest to the lowest degree, is as follows: Teaching methods, Assessment methods, Motivation and willingness, Coordination, Infrastructure, and Computer skills (See on Table 2).

It can be concluded that both the first-year and fourth-year pre-service teachers have encountered with the infrastructure domain. Both group lacking readiness of infrastructure include electronic devices (computer, laptop, a mobile phone), and internet. Most of the first-year pre-service teachers agreed that they were lacking a social aspect because they could not create a personalized connection with the instructors and their classmates, while the fourth-year pre-service teachers could get along well with their teachers and classmates, while the fourth-year pre-service teachers could get along well with their teachers and classmates in the virtual classrooms. These confirmed that the first-year pre-service teachers confronted with challenges in the coordination domain because they felt uncomfortable to deliver the difficulties or ask their instructor for any assistants due to the mutual understanding between the instructors and students was quite low. However, both groups agreed that they were distracted during the online lecture. In fact, the first-year pre-service teachers had no opportunities to meet their classmates and their instructors via face-to-face according to the government and university policies. Therefore, they first started their higher education level in the virtual classrooms. These results are in line with previous studies, which implies that a social interaction in the academic context can be of relevance for students' learning and motivation (e.g., Boling et al. 2012; Hafiz 2017; Hurst et al. 2013; Marler et al. 2021; Yeager et al. 2013). In teaching methods domain, both first year and fourth year pre-service teachers agreed that online learning would discourages their critical and solving problems skills rather than core competencies method, but it mainly promotes the listening skill and memorization. Although, the instructor had employed different resources such as videos, music session, or other deliver ideas. In additions, both of pre-service teachers agreed that the online examination could allow a chance of cheating. Finally, in terms of motivation and willingness domain of the fourth-year pre-service teacher agreed that online learning was to be convened in the physical classrooms rather than the virtual classrooms.

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