

Research Article:

## **Charting the Southeast Asian Science Teachers' Challenges into Recommendations for Future Online Regional Courses**

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### **ABSTRACT**

The regional courses for science teachers in Southeast Asia (SEA) offer participants with the in-service knowledge and skills while promoting deliberate discussions about recent issues related to teaching profession and the sharing of best practices in science education. A total of 21 teachers from eight SEA countries were purposefully selected to participate in this course as nominated by their respective education ministerial officers. Given that the participants came from different countries and attended the course virtually for four weeks, this article aims to chart participants' insights to be backed as data for future course facilitation. The findings are based on post-course evaluation garnered from 21 unstructured essays provided by participants with a focus on two key aspects: (1) the challenges that participants encountered prior to or during the courses, and (2) a recommendation for a similar course in future. Five challenges emerged from the findings include; English proficiency, socio-cultural preferences in social activities, digital technology access and skills, time and schedule constraints, and institutional challenges. In terms of recommendations, participants shared their thoughts on how to better facilitate and manage course administration. Since the majority of professional development courses are held at the national level, this study helped to consolidate country differences and served as the foundation of evidence for future courses that will adapt similar region-based online participations.

**Keywords:** In-service training, professional development, regional course, Southeast Asia, teacher training

**Published:** 30 December 2022

**To cite this article:** Zainun Mustafa, Deva Nanthini Sinniah, Nelson Cyril, Sharfuddin Abdul Syukor, & Sivaranjini Sinniah. (2022). Charting the Southeast Asian Science teachers' challenges into recommendations for future online regional courses. *Asia Pacific Journal of Educators and Education*, 37(2), 185–203. <https://doi.org/10.21315/apjee2022.37.2.9>

## INTRODUCTION

The quality of education is largely dependent on effective teaching and learning activities (Karagiorgi & Symeou, 2007), which are not just based on pre-service training but also must be furnished and updated through professional development courses attended by teachers while in service. The importance of quality teacher training is highlighted as one of the key components discussed in the 3rd action track of the United Nations' Transforming Education Summit (TES) 2022 namely 'Teachers, teaching and the teaching profession' (United Nation, 2022).

Regional teacher capacity development courses are typically hosted to bridge the differences and share best practices among teachers in a specific region, and are led by a well-trained facilitator. Yamada (2016) and Ulla and Winitkun (2018) noted that the regional courses are spearheaded by intergovernmental organisations and civil society organisations in terms of implementation, consultation and sponsorships. Unlike national-level in-service training, which focuses on the nation's geopolitical situations (Gunel & Tanriverdi, 2014; Jamil et al., 2011), the regional course focuses on collective learning and intra-group dynamics by identifying communalities in the sub-region (Yamada, 2016). The significance of establishing communalities in a region was fairly acknowledged, and as a result, intergovernmental institutions were regarded as implementation agencies for regional courses, mandated through multilateralism treaties (Devadason, 2017; Habana, 1993; Limcaco, 1988) and all activities will foster policy informs (i.e., Fughlister, 2012).

Several studies have shown that professional development can potentially affect personal beliefs (Borg, 2011; Ulla & Winitkun, 2018) and performance (Junejo et al., 2018) within a professional setting where decisions are made. The professional development course, according to Biasutti et al. (2019), is a forum for teachers to discuss their approaches, strategies and practices. As a result, the regional course is intended to give teachers the opportunity to explore the educational theories and classroom practices in science education from a regional perspective. Despite the fact that most literature emphasises the importance of professional development, some studies claim that "in-service training did not make any contribution to some teachers and their personal development" (Ayvaz-Tuncel & Cobanoglu, 2018) psychology, and pedagogy of the learners and new research on teaching and learning; hence, they need appropriate in-service training, as well. However, the professional development practices in which they participate are mostly irrelevant to what they need and stay just in theory. Current researches criticised the inadequacy and inappropriateness of the traditional methods of teachers' professional development. In this research, the views and the suggestions of the novice teachers were investigated on in-service training, which was arranged as a part of the induction program. This research is a descriptive study and the participants consist of 494 teachers who participated in teacher induction program. A questionnaire form was used including open-ended questions. The results showed that in-service training did not make any contribution to some teachers and their personal development. The negative views on the trainers and the setting where the in-service training was conducted are other significant points for the evaluation. Therefore, it can be suggested that the planning process should be carefully carried out in order for

in-service training to be effective and sustainable and the andragogy principles should be taken into account in organizing the teaching and learning process. Tuncel & çobanoglu, 2018 due to ineffective training activities or training that are rooted with the challenges which is not well acknowledged. Bayrakçı (2009) found that among the challenges that might affect the quality of the training include the in-service training such as the lack of experts, limited collaborative partnership among teachers, lack of provision for feedback and the unsystematic training model.

Having that the participants for a regional course come from different nationalities and educational ecosystems, their feedback is critical for course's future directions. The regional course is mandated to be hosted on a regular basis and involve multiple stakeholders; thus, the monitoring and evaluation of the course are the crucial parts to reflect existing practices in implementation agencies in order to meet the needs of participants and the demands of the funders. Because it bridges differences and focuses on the communalities of the member countries, information from regional activities hosted by intergovernmental organisations is also channelled for policy inform. Therefore, the purpose of this study is to systematically chart the participant-centric perceptions of the challenges and their own recommendations in the course drawn from a specific case of an online regional course. The objectives of this research are:

1. To identify the challenges prior to or during regional courses.
2. To collect participants recommendations for future courses.

This research further supports the Association of Southeast Asian Nations (ASEAN) having more people-centric and inclusive initiatives to connect with the realities on the ground (ASEAN, 2015). At the same time, this research aligns with the SEAMEO Strategic Plan 2021–2035 and Seven Priority Areas (SEAMEO Secretariat, 2021), as well as the realisation of SDG17 and SDG4 of the United Nations Sustainable Development Goals to render the future education ecosystem responsive through quality teachers in SEA's. This research-backed document will serve as a guide for better regional course management and policy inform for SEA stakeholders. However, this article is a snapshot of a very specific course context with limited generalisability.

## **BACKGROUND OF THE STUDY**

Even though the importance of in-service teacher training is widely acknowledged, the access to the courses is skewed towards the teachers in developed countries. As concerned by Neupane and Joshi (2022) and OECD (1998) reports, teachers in the majority of Global South countries have very few opportunities to attend training, in-which it negatively impacted on the quality of teaching and learning practices in school (Abdullah, 2017; Sayed & Badroodien, 2016). The report on research-based evidence in teacher training is subjected to the context, where there are relatively low resources to better guide the teacher training courses for the Global South teachers including SEA teachers, demonstrating the ripple effect from equality to access to the quality trainings.

Most of the in-service teacher training was delivered at the national level, with a very specific agenda tailored to the curriculum revision or specific improvements to the national education system (Gunel & Tanriverdi, 2014). As the policy implementer in education, national-based in-service training keeps teachers up to date on new policies and changes in the nation-education ecosystem. Regardless, the in-service regional course will tap into better synergies upon exemplifying the realistic ground of the educational practices in the specific region to reduce regional disparity (Acharya, 1998; Devadason, 2017).

### **Teachers Professional Development Courses**

The delegates at the United Nations' TES 2022, acknowledged that the role of the teacher in achieving Sustainable Development Goal 4 (SDG 4) is confronted by four major challenges, (1) teacher shortages, (2) a lack of professional development opportunities, (3) low status and working conditions and (4) a lack of capacity to develop teacher leadership, autonomy, and innovation. The importance of providing professional development training has been ratified as early as in the 1930s (Gunel & Tanriverdi, 2014; Merriam, 2001), however the training ecosystem and support remain uncoordinated. In fact, until recently the teachers' voices regarding the need for quality professional development training were framed by The Teaching and Learning International Survey Report which suggested that providing professional development for teachers as they continue to develop the best practices would better support the dynamics of future generations (Jerrim & Sims, 2019).

Professional development is specifically aimed at those who are working in a profession or career. In other words, professional development refers to work-related educational experiences that enhance one's work competencies. In works of literature, professional development is also interchangeably termed as 'in-service' training (Gunel & Tanriverdi, 2014) in which participants in formal professional development courses learn new knowledge and skills to expand educational practices in their workplace environment. Professional development courses, on the other hand, are not limited to the individual learning paradigm, but are seen as a bridge between social learning and adult education. According to the lenses of social learning theory, the learners are taught through vicarious experiences in a social context facilitated by instructors (Merriam, 2001). On that basis, teacher professional development at the regional level emphasises individual learner experiences in their respective contexts to be shared in order to create a sense of belonging, acknowledge their professional experience, and offer the mutual understanding in problem solving and decision making. Loughran (2006) highlighted the importance of teacher professional development in consolidating a shared understanding of teaching activities and teacher roles from a situational and broader perspective.

Professional development courses vary widely in terms of specification, duration, and certifications. Smith (2010), for instance listed seven professional development activities to be considered for teachers which include: (1) formal studies for advanced academic degrees, (2) short courses and sporadic lectures, (3) participation in professional and conferences, (4) research, (5) self-study, (6) feedback on teaching, and (7) portfolios of the professional development. Regardless of the variations, professional development courses are still referred to as adult-learning or lifelong learning. Essentially, adult learning linked

to professionalism emphasised that as a person ages, social roles and professionalism already form a foundation that can be expanded upon. According to Merriam (2001), the essence of adult learning must be linked to the independent self-concept, adults' prior experiences in job roles, learning that is closely related to changing social roles, problem-centred knowledge application, and motivation from within.

For Smith (2010), professional development is based on socio-cultural theories. He relates the sociocultural theory in professional development that underpins learning and practice in communities. Smith further explained that effective professional development activities are nourished by dialogues with the immediate and wider professional community. In this regard, sociocultural learning should ideally be manifested beyond the output or outcome of the training, but also to the extent of the social impact. Because there is a plethora definition of social impact, this study could be loosely defined as a systematic social consequence of the current proposed action. As such, professional development deliberately evolved in the community of practice, where learning approaches diverged from a school-like learning ecosystem to create a ripple effect in society.

### **Online Regional Course for Science Educators**

The research is being conducted in the context of a four-weeks short course. A regional course for teacher professional development is a carefully planned programme designed to address the needs of teachers in a specific region through a series of multilateral events that include sponsorships, consultations, and stakeholder involvement (Devadason, 2017; Limcao, 1988). As the implementation agency, an intergovernmental organisation will lead the course. The course design will require research-backed data, and the course agenda will be determined first through consultation with all member countries in the region through strategic planning workshops that serve to assess past performances and identify emerging trends, as well as primary lines of action for educational development.

Yoon et al. (2007) discovered that professional development lasting more than 14 hours had a significant positive effect on student achievement. Having that in mind, the studied regional course planned for the 120-hour program recognises teachers as key drivers in education transformation in their respective communities. The course is designed based on the subject matter and level of teaching to be perpetuated in the pedagogical content knowledge (Van Driel & Berry, 2012) and is taught by both field and content experts as well as experienced specialists. The course is intended to be hands-on (Chaghari et al., 2017) and includes both on-site and off-site activities. To surmise, the course is designed to be closely aligned with teachers' professional practice, specific content knowledge input focusing on specific instructional strategies and peer communication to collectively share their experiences.

At the same time, the course aimed to encourage participants to engage in immersive learning by implementing the model lesson in schools throughout the hosting country. The co-creation of the lesson plan for the model lesson requires participants from different countries to brainstorm the lesson plan and test it with their peers before delivering the model lesson virtually in the school. Following the intensive four-week course, participants

are expected to amplify their knowledge, skills (Murcia & Pepper, 2018), and experiences in their respective schools referred to as “multiplier effects” activities in their home country. In the long run, the course contents should be translated and amplified in order to have an impact on society as a whole. The course’s background is also consistent with Lund (2020), who discovered that the quality of in-service teacher training is manifested when classroom behaviour and thinking change as a result of testing what they have been trained in their context.

This course meant to benefit the donor fund which will be used to support the professional development of teachers in a specific region. The continuous and quality evaluation of the donor-led programme is critical for determining the program’s the effectiveness (Flatau et al., 2015). This means that the purpose of establishing the evaluation is to identify appropriate outcomes, indicators, and assessment tools in order to provide the necessary information and insights to internal and external stakeholders. The feedback aims to provide baseline data for improving the course in terms of the strategic plan and good governance, at the same time providing evidence of the course’s impact on donors and other stakeholders (Flatau et al., 2015).

### **Course Design and Structure of Implementation**

This teacher professional development course ideally focuses to furnish pedagogy and capabilities of subject-specific teaching and learning activities. However, the syllabi, local culture, languages, assessment approaches, and digital skills of the participants vary greatly depending on their practices in each country. Thus, the course content is ideally designed to bring the course participants together through professional similarities, while also expanding and enriching the teachers’ course experiences through systematic facilitation. As a result, regional professional learning for teachers is structured in a way that is adaptable to the educational systems of individual countries. As suggested by Yamada (2016), the outline, contents and approaches of the course have been validated by external experts and consultants, stakeholders from the participating countries and the research evidence.

This regional course requires the participants to make sense of their in-service learning experiences to be constructed in their teaching and learning context by connecting new information to prior knowledge and practices. Participants were expected to demonstrate their new knowledge and skills acquired during the course by participating in virtual peer-try-outs and microteaching. Later, the participants must hone their transversal skills into a context-specific plan based on the choice of language, using the available facilities as well as national documents for teaching and learning through effective communication in their respective country. Participants must plan a systematic training in their own community to be implemented within six months of the course’s completion, which is known as “multiplier effects proposal”. From the social constructive perspectives, the teacher imparted their learning experiences from the in-service training into respective sociocultural contexts and scaffolded learning in an innovative way in their home country.

Although the course was designed with several important areas in mind, it can only meet three of the four minimum conditions of effective in-service teacher training (Darling-

Hammond et al., 2009):

1. It should be intensive enough to cause a change in teacher behaviour (over 50 hours).
2. It should be connected to practice.
3. It should be continuous.
4. It must be aligned with teacher incentives.

At the same time, the course may have only met four of the six training process requirements (Abdullah, 2017; Vukelich & Wrenn, 1999):

1. Focus on a single subject.
2. Focus on participants' needs.
3. Be ongoing and sustained.
4. Engage participants in the pursuit of answers to genuine questions, problems and curiosities.
5. Provide for participants' meaningful engagement help participants develop collegial relationships.
6. Encourage participants to reflect on their teaching.

This means that existing course implementation should be evaluated from the participants' perspective and recognise them as active professionals in their respective fields.

Another important context to consider is the fact that the course's adaptation of the concepts of resilience and agility. This course was restructured to be online this time instead of face-to-face, using synchronous and asynchronous learning environments. As the course's design process considered various aspects of professional development, this research gathered feedback from participants as a check on what is designed and how it is delivered. Considering the long hours of the course, a heterogeneous group of participants, and the various contexts of the education system, the feedback provides a constructive mechanism for re-examining the course delivery structure in the near future.

## **METHODOLOGY**

### **Design and Sampling**

This study adapted the qualitative evaluation design (Patton, 2014). The course evaluation was carried out at the end of the training (post-evaluation) and the participants was selected using criterion sampling (Byrne, 2001). The inclusion criteria of this study are:

1. Participants must be currently in-service teachers.
2. Participants must teach science subject in schools.
3. Participant must be of SEA nationality.
4. Participant must be awarded a full scholarship to attend the course.

Participants are nominated by officials from the respective ministries of education in Southeast Asian countries based on their professional merits and English competencies

to attend the training hosted by the implementation agency. After completing the entire four-week course via essay writing, the 21 course attendees were asked to provide feedback by writing the essay digitally.

**Table 1.** The demographic profile of participants

Demography		Number of participant
Countries	Brunei	2
	Cambodia	4
	Indonesia	3
	Philippines	3
	Singapore	3
	Thailand	2
	Malaysia	2
	Timor-Leste	2
Age	21–30 years old	6
	31–40 years old	12
	41–50 years old	3
Gender	Male	12
	Female	9
Status	Single	9
	Married	12
Highest qualification	Bachelor's degree	7
	Master's degree	12
	PhD/EdD	2
Teaching experience	0–5 years	4
	6–10 years	7
	11–15 years	8
	16–20 years	1
	21–25 years	0
	26–30 years	1

### Instrument

There were three main guiding questions:

1. What do you think (i.e., opinion) about the course that you have attended?
2. What are the issues or problems (i.e., challenges) that you face before and during the course implementation?
3. How do this course could be improved in future?

The essay was completed in three days to provide ample time for the participants to reflect,



communicate among their peers and articulate their thoughts in written forms. The researchers also provide several probing questions orally during the post-evaluation session to explain the purpose of the questions, explain the expectation of the evaluation, clarify ambiguity and to encourage the participants to include the context or case-specific situation to their answers. Since the participants have different levels of English proficiency, they were encouraged to use dictionaries or translation apps to provide answers to the questions.

**DATA ANALYSIS**

The qualitative open-ended data was analysed using the suggestions of Brereton et al. (2007) and further supported by Vaismoradi et al. (2016) to cluster the emerging opinions and suggest a meaningful data interpretation. The essay was collected after three days to allow participants to provide in-depth reflection. The transcript was then scored and coded using open coding, forming an extensive codebook that was manually encrypted. The meta-data were re-coded posteriorly from isolated words or phrases in the transcript. The initial codes served as the unit of analysis, with vignettes in the transcript consisting of facets, attributes, statements, or criteria forming the categories with similar concepts of ideas. Table 2 shows a sample of codes from the codebook.

**Table 2.** Sample of codes

Encrypt	Initial code for RQ1	Initial code for RQ2
To be honest, the first few days of the course was quite challenging, cos it's like going back to university life and more its during Ramadan time, with all theories and discussions and also nervous after being grouped together with teachers from other countries and I am the only female in the group.	Change of routine	Break the ice
	Fasting month	Peer sharing
	Emotion/confidence	
	Social preferences	
But it started to get interesting when we start exploring the apps (this is the main reason I want to join the course) and knowing my group members are actually fun to discuss with.		

After the initial codes were assigned to the categories, the categories were then revised, rectified and refined resulting in comprehensive categories and several themes. As suggested by Brereton et al. (2007), the thorough procedure from theme identification to coding and meta-analysis, was reviewed by all five of the research members. The coding process in this study was described using the guide developed by Vaismoradi et al. (2016). The refined data from the open-coded and initial code were then further organised using axial coding and selective coding.

The findings were triangulated by several means. First, the finding was consolidated by all research team to avoid bias and misinterpretations. Second, beside this essay, the implementation agency also collected the weekly evaluation during the course by administrative staff (non-research member) to ensure the quality of the hospitality and

clients-oriented-services. The data from the questionnaire was set as comparative evidences to better interpret the transcript.

The general code examples were then organised as shown in Table 3.

**Table 3.** Example of general code

Axial code and selective code	Categories for challenges	Categories for the recommendations
Fasting month	Change of routine	Schedule changes/adaptation
Online learning		Synchronous/asynchronous learning options
Learning materials		

According to Nowell et al. (2017), the trustworthiness of the thematic analysis are based on the credibility, transferability, dependability, confirmability and audit trails. For this study, the credibility was established by member checking. Meanwhile, the context-thick description of the course to ensure the transferability is limited according to the given context. The confirmability of the finding was met by including all transcripts without any outlier screening. However, the remaining audit trails trustworthiness is limited due to the fact that the similar findings could be interpreted using different theories as well.

## FINDINGS

This study focuses on two critical aspects from the participants' point of view: (1) the challenges before and during the course and (2) participant recommendations to improve future courses. Five emerging themes were generated from the transcripts: English proficiency, socio-cultural preferences in social activities, digital technology access and skills, time and schedule, and institutional challenges.

### Challenge 1: English Proficiency

According to the findings, the participants identified several challenges in interacting with facilitators and other teachers from neighbouring countries. For instance, participant (R16Q2) expressed the following concern about language barrier:

I can't understand the English well and was having problem to understand when speaker speaking. (R16Q2)

However, the similar participants indicated in other probing questions that:

I discuss with my friends (participants from the similar country) about the course content later after the class ended. In the same time, I use google translate to immediately translate the text in the screen using my mobile phone. (R16Q3)

At another instances, the participants reflected that the teaching material in the home-country is in natives and therefore translating it into English has become the communication barriers.

I want to give idea for discussion, but my lesson is in Khmer. So, it is difficult to translate it into English. (R22Q2)

Despite the fact that English proficiency is one of the selection criteria for participants in the respective ministry, they are non-native speakers. The SEA nationalities primarily speak their native languages and use the native language as the medium of instruction in the classroom and either have English as their second or third language. 21.7% of participants expressed that the communication barrier was due to English-course content or English as medium of communication. Simultaneously, 1.6% of participants mentioned that they have to translate certain lesson content from their native language into English. Consequently, the English speaking and writing abilities are challenges that participants encountered while taking the course.

### **Challenge 2: Socio-Cultural Preferences in Social Activities**

Another pertinent issue that was highlighted was the grouping of their niche area, gender and nationality into heterogeneous groups. As such, one of the participants stated that “it was difficult at first to be the only female in the group” (R2Q1), which indicated that the socio-cultural aspects of the participants should be considered in social and group work. In another case, one of the participants requested that they be as Biology, Chemistry, or Physics in order to facilitate the peer discussion. Another participant stated that “...if I in the group with my friend (from the same country) he can help me to translate my idea to the faci... (R20Q3). The other two participants simply referred themselves as *introverted people* and therefore “don't like to talk many (or limited intention)” (R15Q2) to probe into discussions.

### **Challenge 3: Digital Technology Access and Skills**

Aside from English proficiency and socio-cultural preferences in course implementation, several participants indicated that their technological skills are insufficient to compete with their colleagues. In the essay transcripts, “...I wasn't much tech savvy. That is the first real challenges that I face during the course...” (R7Q2). Despite the fact that 13.0% of responses from the participants griped about their digital technology proficiency, 27.2% mentioned tangible assistance in providing access to digital tools such as connectivity “... difficulties I encountered during the course includes the strength of internet connection.... I have to find other spots to reach better internet” (R1Q2), devices, storage and application availability “... Third, some apps does not support my phone, but I can delete some stuff from storage...” (R16Q2). However, given that accessing and utilising digital technology is difficult, but in terms of course completion, 22 participants have successfully completed the course's minimum requirement. To overcome digital technology related challenges, participants appraise the flexibility to demonstrate self-directed learning during the asynchronous session and one-on-one facilitation during the synchronous session as a strength of this course, even though it was opted for the online session. For example, participant R7Q2 emphasised the importance of both synchronous and asynchronous sessions:

The burden of the activities are also manageable since most of it is done during the asynchronous meetings... the asynchronous part also a relief for participants to catch-up whenever we lost it... (R7Q2)

Participants also mentioned changing roles from teacher to learner. Considered minor challenges, one of the participants stated that he/she had not attended a professional development course in 13 years, so 'learning' has become a new venture, which was further mentioned in 13.04% of the responses saying that attending a professional development course as being long overdue. Due to illness, two participants missed several classes and learned the course contents asynchronously for those missed sessions. Another two participants brought up domestic issues such as the noisy environment at their station.

#### **Challenge 4: Time and Schedule**

Another emerging theme is related to time and schedules. Even though the majority of participants agreed that the course's duration was optimal, they were challenged to be adaptable and reconsider their own schedules and the time zone differences that might affect routines. For instance, the course was rescheduled one hour earlier as the participant requested flexibility due to the course ended late. It was clearly stated by the R22Q22, "...It is challenging when the course ended near to dawn, but then after we asked for reconsideration, it was changed. Then it is ok...". To be flexible for prayer times or special occasions, the course schedule must take into account the religious and cultural diversity of the participants. For example, the participants requested to be "...exempted in a slot during the Good Friday..." (R4Q3) during the course.

#### **Challenge 5: Institutional Challenges**

Participants also commented on institutional challenges. Despite the online course, 34.8% of participants were required to attend school's assignments such as paper marking, preparing materials for the substitute teacher, and administrative activities. Therefore, the participants were multitasking during the course to meet their institutional demands. The following are some of the issues raised in the essay:

I had experience in the overlapping work in school including marking the paper and sending the report (R2Q2)

I found difficult to juggle coursework and schoolwork (R7Q2)

I have to check with my colleagues whom taking my class at school to catch up with the syllabus as their examination is near the corner (R15Q2)

Having the challenges was systematically identified, the participant recommendations to improve future courses categorised into three themes, namely responsive facilitation, earlier content dissemination and face-to-face session.

### **Recommendation 1: Responsive Facilitation**

To accommodate language barriers, participants requested that facilitator and fellow participants speak at a slower pace. The participants claimed that they used an online dictionary or digital translation tools to help them to communicate. As an example, “instructor should speak slowly because it is easier to understand the concept” (R21Q3) and “...so, I need to look into the dictionary, and then the class move on (progress) that make me miss some point during the class...” (R16Q2) could be find in the essay. The use of translation tools also useful in the notes, assignments, and particularly in conveying certain scientific content written in their native language in the textbook to be shared with the other participants during the discussions.

The ice-breakers during the first few weeks, international interactions through peer discussions, openness for shared experiences, contextualisation of the content, and developments in training content are just a few of the aspects of the course that the participants acknowledged need to be maintained even though they are not specifically mentioned as challenges. Five encrypts that give credit to the current course facilitations are listed below.

...I appreciate the efforts of the facilitators to help the participants to break the ice (R4Q1)

... I never have a chance to communicate with teacher from other country professionally... this course offers that to us (R17Q2)

...This course focus on the shared experiences among the participants which really interesting to listen to.. (R4Q2)

The lesson arranged by cultivate the safe and positive learning environments... (R5Q1)

...The content is timely to better address our students, the digital natives ... such as the digital assessment and experiment session using the digital tools (R8Q3)

### **Recommendation 2: Earlier Content Dissemination**

The participants also shared their suggestion regarding the challenges in digital technology access and skills. For instance, “one-to-one guidance (facilitation) during the breakout session is important to understand the content better”(R3Q1), “the facilitator can release the notes and assignments earlier, so that we can catch-up when the line-breaks” (R4Q2), and “for us with lower tech-savy, we could repeat the procedure at our free time to understand certain software and applications” (R6Q2). Better facilitation was suggested, and it was asked to receive the course materials prior to the session. To support this claim was that even when a line breaks, participants could still follow along what is written or try out the lesson independently post session. In addition, translating written materials was easier than translating spoken ones.

### **Recommendation 3: Resume to the Face-To-Face Session**

As for the institutional challenges, the participants believe that if the course resumed in-person instruction, the institutional problems might alter. The participants admit this in a number of their comments that "...the course need to be conduct offline, because if it done online the school still expect is us to still manage the class even during the course runs ...” (R14Q3) and "...since all of us have to manage both training and our school and office work...” (R6Q3).

On side notes, the participants did, however, requested additional information about game-based learning, customised instructions catered to the use of digital technology, and adaptive instructions started during the pandemic for the future course content.

## **DISCUSSIONS**

The perspectives and reactions of the participants should be further utilised in the context of course design, contents facilitation, and assessment (Vrasidas & Zembylas, 2004). Most of the research discovered difficulties in understanding the interaction and participation from the facilitator’s point of view; however, this study directed into different view, those of the participants perspectives. According to the findings, five emerging themes that were considered as challenges includes: English proficiency, socio-cultural preferences in social activities, digital technology access and skills, time and schedule. and institutional challenges. As compared to the challenges, the recommendations proposed by the participants rather converged into three themes namely, responsive facilitation, earlier content dissemination and resume the course for the face-to-face session.

Even though the findings highlight the communication issue linked to the English language, it is still necessary to conduct courses in English since it is the working language for ASEAN (Low & Hashim, 2012). As suggested by the participants, the facilitator of the online course should slow down for non-English speakers and continually seek feedback on the session and how it is viewed. The virtual responsive facilitation technique should be trained to the trainer especially when planning to conduct an online course. The trainer should be trained to systematically manage the session by taking the gesture, sound and embodiment que from the human-machine-human interactions. Having the demand for the virtual-oriented education spikes up during and post-pandemic, the research on better facilitation in the virtual learning environment for professional training need to be systematically documented. The research-backed development of guide, manual and toolkit for the trainer, facilitators and supervisors would be beneficial for the training institution to utilise it in the virtual field.

As noted by Conrad (2002), the adult learner appreciates earlier distribution of the course’s content and friendly facilitator. The participants in this study specifically wanted to experience improved class facilitation through earlier note sharing, continuous feedback, ice-breaking session, and a secure and supportive virtual setting. In the first session of a month-

long course, the techniques mentioned were intended to make it easier for participants to communicate with one another and understand the course material. The recommendation provided by the participants in the sense of earlier course content dissemination hinted that the participant prefers to be “connected” with the course ecosystem even before the course started, and it is bulged at the earlier session of the course. The take home lesson from this finding are, even in the virtual setting, the course management and administration need to focus on the humanistic sensitivity and social interaction aspect of an online training session.

There are not many comments on the course material, but those that are made make it clear that the course outline and content selection will continue to be maintained. Since this course dealt with multilateralism treaties, the course content and outline were chosen based on internal research by implementation agency, consultation with experts, and discussion with stakeholders from respective SEA countries. For the future course, the recommended content on game-based learning, customised instructions using the digital technology, and adaptive instructions to be considered.

On the socio-constructivist learning process, opinions are divided. Due to the fact that online professional development courses enable the development of a community of practice (Makrakis, 2014) through the sharing of experiences across geographic and temporal boundaries, it is important to take the socio-demographic and cultural backgrounds of the participants into consideration. The implementation agencies need to consider socio-cultural and religious sensitivity when organising the course for Southeast Asian participants in future based on the challenges the participants faced. Even in the virtual learning environment, the participants should also be allowed to address their ethical concerns in terms of grouping in order to protect their rights and at the same time make the session more enjoyable and respectful for everyone. The limited non-verbal cues that can be taken into account by the trained facilitator are due to the participants' restricted physical engagement when they are seated behind their screens. Again, it is crucial for the facilitator engage with each participant early on and create a safe and welcoming environment for them by systematically planning for continuous feedback on the course as it is being run.

In a similar vein, because the participants come from different countries with different national holidays, the implementation agency needs to consider the national calendar of the respective countries. Given the potential for significant differences across the ten nations of Southeast Asia, the ability to reschedule the time of the slot based on mutual agreement, supports the participants' engagement with the course session. This course, which was designed to accommodate both synchronous and asynchronous sessions, encouraged participants to discuss shared experience and professional practices. To sum, this study further supports that online course offers flexibility for the professional to manage learning experience, job commitment and personal matters (Biasutti et al., 2019).

## **IMPLICATIONS, LIMITATIONS AND FUTURE DIRECTIONS**

The SEA is undeniably culturally and ethnically diverse; education in SEA has also adapted various national-level education approaches, which in turn make each and every education system in SEA unique. The socio-political balances and geographical landscape of each member country in SEA also mapped the differences in the country-level education system, especially the distribution of quality education facilities and resources. With such a wide disparity in the quality of the national education ecosystem across the SEA, a regional teacher professional development course is almost certainly required to better support the education system in the SEA.

This study was conducted by internal evaluands or in-house evaluation to focus on the concerns and needs of the organisation's administrators, managers and staffs in order to assist programme managers in better understanding their course theory of change and improving programme processes and outcomes. Even though the internal evaluation process encourages the use of evaluation findings, reflective practice and organisational learning for improvement in subsequent courses, this finding might be subjected to bias and the trustworthiness of the study. Furthermore, the studied course was designed in the context of Southeast Asia; therefore, this study is a snapshot of a single short course of professional development training. Even though the participants from other non-English speaking countries may have expressed a similar concern about the attendance of region-based professional development courses, the generalisability is limited in another context. The report of this research emphasised several areas that needed to be improved.

In addition to the identified challenges and recommendations, this research also identified strengths in open-ended written feedback as a methodology for understanding non-English speakers and providing better feedback on course implementations than oral responses through interview or focus group discussion. The data collection via essay also allowed participants with limited English proficiency to provide feedback using translation tools. The essay can also be used to collect data on emotions, feelings, beliefs and values. However, a much more diverse data collection approach, such as field observation, comparative study and continuous course evaluation should be adopted in the future to provide a much richer description of the course.

Finally, based on the challenges and recommendations found in this research, the course should be re-designed to focus on participants' online shared learning experiences and interactions. However, the rigorous course content and outline selection should be maintained as it receives overall positive feedback by the participants. For future directions, as a community of practices, the teachers should be empowered to peer review and reflect on their course innovation and ideas. The dynamics of the communication should be participatory towards empowering teachers' decisions on what and how the learning experiences should take place in their classrooms among themselves.



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