



**LEARNER ENGAGEMENT IN A COLLECTIVISTIC
CULTURE: A STUDY OF MASSIVE OPEN
ONLINE COURSES (MOOCs) IN THAILAND**

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Abstract

In the context of Massive Open Online Courses (MOOCs), most studies investigating learner engagement have been done in Western contexts. Little research has been conducted in non-Western contexts, including Thailand, where there have been few studies using a cultural lens to investigate learner engagement. In this qualitative study, it is argued that the generally accepted four dimensions of learner engagement: behavioural, cognitive, emotional, social engagement are interrelated with cultural engagement. It is also argued that learner engagement can be improved when cultural aspects are considered in online learning and teaching. Data were collected from selected three Thai MOOCs through semi-structured interviews with three instructors and 30 students and through browsing of the related discussion forums. The data were then analysed through thematic analysis. The results indicated that (a) collective engagement was highly related to behavioural engagement; (b) relational engagement determined cognitive engagement; (c) mediated engagement managed emotional engagement; and (d) de-individuated engagement enhanced social engagement. These indicated that cultural engagement could be a superordinate concept over the four dimensions of learner engagement. The results also indicated that (a) instructors prioritised teaching and learning over cultural engagement; (b) instructors perceived learners as objects to be encouraged to adapt the institutional and/or predominate culture; and therefore, (c) cultural engagement was seen as an additive to pedagogy. From the above results, a conceptual framework has been suggested to ensure that cultural engagement leads course development to authentic learner engagement.

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List of Abbreviations

AUSSE	Australasian Survey of Student Engagement
CCK08	Connectivism and Connective Knowledge 2008
CET	Continuing Education and Training
CLDB	Culturally and Linguistically Diverse Background
CoI	Community of Inquiry
MOOCs	Massive Open Online Courses cMOOCS: Connectivist Massive Open Online Courses J-MOOCs: Japan Massive Open Online Courses K-MOOCs: Korean Massive Open Online Courses xMOOCs: Extended Massive Open Online Courses
NSSE	National Survey of Student Engagement
OHEC	Office of the Higher Education Commission
QiLT	Quality Indicators for Learning and Teaching
QUT	Queensland University of Technology
SES	Student Experience Survey
TCU	Thailand Cyber University
TSU	Tomsk State University
UKES	United Kingdom Engagement Survey
UHREC	University's Human Research Ethics Committee
URU	Uttaradit Rajabhat University

Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: [QUT Verified Signature](#)

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CHAPTER 1: INTRODUCTION

1.1 Introduction

The purpose of this study is to investigate the dimensions of learner engagement in Thai Massive Open Online Courses (MOOCs), by reflecting on Thai culture as it relates to learning, and to develop a pedagogical model based on Thai learners' cultural engagement in a MOOC learning environment. This chapter begins with a background to the study (1.2) by providing an understanding of the four terms of Massive Open Online Courses, the five perspectives influencing the development of MOOCs, and the pedagogical strategies of MOOCs. The research problem (1.3) highlights the way in which engagement has been researched in MOOCs and addresses the cultural considerations of learner engagement. It is then followed by research design (1.4), contribution to knowledge (1.5), contribution to practice (1.6), and definitions (1.7). The chapter concludes with an overview of the chapters (1.8).

1.2 Background to the study

1.2.1 An overview of Massive Open Online Course (MOOCs)

Massive Open Online Courses or MOOCs have been developed with a primary purpose to provide an opportunity for large numbers of learners worldwide to access online learning in higher education to gain new knowledge or strengthen current knowledge for free. There are two types of MOOCs, which can be classified according to their pedagogical

strategies: xMOOCs and cMOOCs. xMOOCs adopt a behaviourist pedagogical approach (Conole, 2016; Mai & Poppe, 2016) and according to O'Toole (2013), they are “where traditional institutions use online platforms to extend access to onsite learning activities, resources and events, which are typically based upon the transmission of content and verification of reception model” (p. 1). cMOOCs, on the other hand, use a learning theory called *connectivism* and focus on significant interaction and collaboration between learners and a network of peers and information with the assistance of technologies to aggregate, create, and share knowledge with others (Mai & Poppe, 2016; Siemens, 2005). This could be interpreted that behaviourist MOOCs promote less learner-learner or learner-course information interaction, while connectivist MOOCs require active learner-learner interaction via social media as an alternative way to co-construct knowledge (Mai & Poppe, 2016).

Neither kind of MOOCs pedagogical strategies reflect or consider cultural aspects. For cultural integration, the features of MOOCs, such as interaction, communication, and collaboration need to be re-conceptualised by articulating the cultural needs for learner engagement. In this sense, cMOOCs have more room for cultural integration than xMOOCs, and the limitations of cMOOCs also need to be addressed prior to integration. For example, as Kop and Hill (2008) argued, cMOOCs tend to focus on individual learners' participation in learning communities in the network, which overlooks collective participation. Such a tendency also occurs in the xMOOC offerings, as the functionalities of xMOOCs are developed to support individual learners' independent and self-learning, and thus, interaction, communication, and collaboration remain focussed on individual learners' input without considering the networked natures of the learning environment.

Although MOOCs were first developed in the West (Pilli & Admiraal, 2017; Yuan & Powell, 2013), they have now been developed in non-Western learning contexts including East Asian countries such as Malaysia, Thailand, the Philippines, China, and South Korea (Kim, 2015). Specifically, the *ThaiMOOC* platform that is built on Open edX (Shah, 2017b) has been developed to primarily target employees, entrepreneurs, students, and teachers. It is also open to any member of the community who is interested in undertaking study in this way (ThailandCyberUniversity, 2018). More information on MOOCs in terms of the original meaning of the four terms, how they are formed on the basis of various perspectives, and on MOOCs in Thailand can be found in Chapter 2, Section 2.3.

However, there are challenges in developing Thai MOOC courses addressed by some researchers. According to Thaipisutikul and Tuarob (2017), these challenges are related to cultural features. For example, some MOOC instructors who are conservative may feel uncomfortable with student-centred learning, and may hesitate to publicly share their teaching techniques and materials with others in an online environment which relies on the high social status of teachers in Thailand. Also, Thai instructors who are familiar with using informality in conventional classrooms to build rapport or relationships with their students as a Thai cultural practice, may feel that MOOCs platforms are inappropriate places to use this informality because their interactions would be publicly accessible.

1.2.2 Connectivism

This study employed connectivism as a theoretical lens to examine the four dimensions of learner engagement. In a connectivist MOOC, learners are expected to be

independent with the support of instructors to actively engage in human and non-human nodes of the networked learning environment, and interact and collaborate with peers to co-construct knowledge (Conole, 2016; Peters, 2016) using various synchronous (e.g., live chat) and asynchronous (e.g., discussion forums and social media communities) communication tools (Ganesan et al., 2002).

This study specifically used connectivism's three key functionalities to explore how the four dimensions of engagement were formed. The key functionalities are interaction, communication, and collaboration (Casimiro, 2016; Fernandes et al., 2017; Mittelmeier et al., 2018; Nkuyubwatsi, 2014). Collective interaction through group cohesion and learning community can lead learners to learn and have more intensive learning experiences (Casimiro, 2016; Fernandes et al., 2017). For communication, using various communication tools, such as social media communities, can help learners connect and engage more in group learning (Nkuyubwatsi, 2014), whereas learners who receive collaborative learning through social interaction could mutually receive new insights and values from peers (Mittelmeier et al., 2018). Although the four engagement dimensions (i.e., behavioural, emotional, emotional, and social) (e.g., Casimiro, 2016; D'Mello et al., 2017; Fredricks et al., 2004; Hartnett, 2015; Li, 2015; Henrie et al., 2015; Kahu & Nelson, 2018; Lester, 2013; Martin & Ndoye, 2016; Masika & Jones, 2016; Newmann et al., 1992; Pellas, 2014; Sinatra, Heddy, & Lombardi, 2015; Zepke, 2018) were examined using Thai xMOOCs, the key functionalities of the cMOOCs were acceptable and remained important as a theoretical lens in this study, as implicitly demonstrated by the findings in the themes and sub-themes in the Analysis and Findings chapter.

1.2.3 Cultural considerations of learner engagement

In essence, as Kahu and Nelson (2018) have argued, taking culture into consideration when investigating learner engagement can provide a better understanding of how learners interact and engage with peers, instructors, and institutions. However, learner engagement dimensions with cultural considerations in East Asian contexts are still rare. Furthermore, previous studies on learner engagement in East Asian contexts tend to explore a single dimension of learner engagement rather than the four dimensions of behavioural, cognitive, emotional, and social engagement, especially in a MOOCs context. For example, Jung and Lee (2018) examined factors like academic self-efficacy that influence learner engagement in MOOCs. In their study, academic self-efficacy is considered evidence of cognitive engagement to perform a given task. Academic self-efficacy could also be influenced by sociocultural factors, such as students' backgrounds, family, and socio-economic status (Kahu & Nelson, 2018). In a similar case focusing only on the cognitive engagement dimension, Cho and Byun (2017) investigated lived learning experiences within MOOCs of non-native English-speaking students in South Korea. The results revealed a truism that participants with low levels of English language ability experienced learning difficulties when undertaking MOOCs from English-speaking countries. This is consistent with the study conducted by Ahn et al. (2015) on the cultural sensitivity and design implications of edX and Coursera MOOCs from the perspective of Korean learners. The results indicated that learning activities from these Western MOOC platforms did not seem to fulfil the needs and preferences of Korean learners, such as providing opportunities for interaction to establish mutual relationships, and providing discussions to further build harmonious relationships

with others. This implies that the need to develop MOOCs in a specific region such as Thailand, taking cultural aspects into account, could enhance learning experiences and provide learners with more effective learning.

There is a lack of research investigating learner engagement in MOOCs through a cultural lens. My interest came from my masters study on learners' intrinsic motivation in Thai online courses (Yamo, 2017). The findings related to Thai cultural factors motivated me to conduct further research with a larger sample and multiple methods, and to explore more factors other than intrinsic motivation that contribute to learner engagement in a collectivistic culture. My previous research identified two relevant cultural factors: the characteristics of the Thai learners and their seniority. First, Thai learners are relationship-driven learners who are trained culturally to show their instructors respect and politeness (Pagram & Pagram, 2006). Second, seniority in Thai culture plays a significant role in the learning community where younger group members try to avoid expressing ideas when participating in group activities with senior group members (Yamo, 2017). These cultural aspects of Thailand should be taken into account when developing pedagogical techniques within MOOCs to enhance learner interaction. According to Mei (2005), in order to promote Thai learners' collectivistic cultural traits, instructors should encourage learners to improve collective self-efficacy for their cognitive engagement when undertaking MOOCs. Simasangyaporn (2016) also explained that students with a low sense of self-efficacy or a high sense of relationship-driven self may feel that they do not have enough skill and knowledge to complete difficult learning tasks and may avoid participating in activities with others. It is, therefore, necessary to conduct this study to examine how Thai learners perceive

their engagement dimensions and reflect their cultural needs, and how Thai instructors design and offer culturally inclusive pedagogical strategies to meet learners' needs for greater learner engagement.

There also seems to be a lack of research conducted to investigate learner engagement by considering anthropologists' cultural dimensions. Hofstede's (2017a; 2017b) cultural model indicates that Thailand, as a non-Western country, is characterised as "a high power distance, a high uncertainty avoidance, a collectivism or a low individualism, a femininity or a low masculinity, a normative society or a long term, and a restraint tendency" (p. 1). These six cultural dimensions have the potential to be connected to the four engagement dimensions. For example, the dimension of individualism-collectivism helps explain that MOOC learners from collectivistic cultures who value group cohesion may learn more effectively when they feel emotionally engaged, by demonstrating a sense of belonging or community with their fellow students (Fernandes et al., 2017; Masika & Jones, 2016). A power distance dimension is another example that can help explain why younger students from a hierarchical power culture may hesitate to engage with and contribute to learning activities when they have to interact with senior group members (Fredricks et al., 2004). In this research, thus, I applied Hofstede's six cultural dimensions together with the Thai cultural values (i.e., Thai karma, staying calm, gratitude and indebtedness, mercy and kindness, and consideration) as a cultural lens to help observe and understand a phenomenon of learner engagement through the various perceptions existing among learners and instructors in a Thai cultural context. I have discussed more details of the five Thai cultural values and the six cultural dimensions in Sections 2.3.1 and 2.3.2 in the literature review chapter, respectively.

1.2.4 Learner engagement approaches

Approaches to investigating learning engagement in MOOCs learning include (1) standardised survey questionnaires, (2) learning analytics, and (3) qualitative research. First, several studies on learner engagement in higher education appear to investigate engagement-related items via survey questionnaires (Redmond et al., 2018; Henrie et al., 2015). These are considered quality assurance surveys done by higher education institutions to investigate learner engagement in mainstream university courses. Examples of these surveys are the National Survey of Student Engagement (NSSE), the Australasian Survey of Student Engagement (AUSSE), the Student Experience Survey (SES), the Quality Indicators for Learning and Teaching (QiLT), and the United Kingdom Engagement Survey (UKES) (Redmond et al., 2018). Some surveys have a simple format containing a few items regarding learner engagement, whereas some ask learners to evaluate engagement in full scales with a number of engagement-related items (Henrie et al., 2015). Both rely on survey questionnaires, and they are likely to provide an indication of the assumed characteristics of learner engagement. This means that they tend to focus on a quantitative understanding of learner engagement, which makes it hard to provide a deeper understanding of learner engagement such as cultural aspects in the online learning environment of MOOCs.

Second, in the contexts of MOOCs, an investigation of learner engagement is done via learning analytics. Learning analytics is used to investigate students' behavioural engagement when participating in online learning activities (Khalil & Ebner, 2016). Learning analytics, as a quantitative approach, focuses on behavioural engagement, as well

as cognitive engagement, using text analysis (Henrie et al., 2015). Examples of these analyses include time spent viewing learning materials, frequency of posts in discussion forums, and login frequency (Henrie et al., 2015; Khalil, 2018; Martin & Ndoye, 2016). Other examples of studies on learning analytics are engagement patterns in MOOCs (Ferguson & Clow, 2015), the potential of learning analytics in MOOCs (Khalil, 2018), and the relationship between discussion forum participation and learning in MOOCs (Wise & Cui, 2018). However, employing learning analytics to investigate learner engagement by considering cultural aspects is rare. A study conducted by Liu et al. (2016) revealed that, based on Hofstede's cultural dimensions (i.e., power distance and individualism/collectivism), students from different cultural backgrounds behaved differently when participating in learning activities. Students from Australia, Canada, the U.S., and the U.K. received the lowest power distance and the highest individualism cultural dimensions, whereas students from China, India, and Singapore were categorised as the highest power distance and collectivism. This means that students from different cultural backgrounds have different types of interaction and levels of engagement in online learning.

Third, qualitative research is used to examine a deeper understanding of learner engagement in the contexts of MOOCs. Examples of this qualitative research are understanding the role of reflexivity in student engagement (Kahn et al., 2017), promoting active engagement (Wilks et al., 2017), and factors that improve learner engagement in MOOCs (Hew, 2018). These studies tend to focus on teaching and learning strategies rather than a holistic view of learner engagement from both learners' and instructors' perspectives. The strategies often remain focused on instructions; therefore, learners have little opportunity

to understand and practise their cultural needs in learning. More significantly, cultural aspects of learner engagement in a MOOCs learning environment remain unexplored, particularly for collectivistic cultural contexts.

The three approaches to learner engagement in MOOCs learning are challenged by deeper, holistic, and cultural understandings of learning engagement. As Liu et al. (2016) suggested, future research needs to be conducted to investigate intercultural awareness among MOOC designers. Bozkurt et al. (2017) also suggested that future research should focus on “geographical, linguistic, and cultural differences and participation” (p. 138). Their assumption is that learners from diverse cultural and socioeconomic backgrounds have different patterns and features of learning engagement. Furthermore, methodologically, the approaches lack evidence to demonstrate that they consider the four dimensions of behavioural, cognitive, emotional, and social engagement in a systematic and holistic manner.

1.3 Research problem

Learner engagement as a critical factor in improving learning and teaching in an online learning environment such as MOOCs, plays a significant role in facilitating students to successfully complete courses offered in MOOCs, and is considered a vital factor for student success and retention in higher education (Kahu & Nelson, 2018). Indeed, learner engagement is a complex phenomenon, as it includes how students are being behaviourally, cognitively, emotionally, and socially engaged (Bowden et al., 2021; Kahu & Nelson, 2018). Furthermore, these four engagement dimensions are interrelated and together, help contribute to a better understanding of learner engagement as a whole (Bowden et al., 2021; Kahu &

Nelson, 2018). The following sub sections (1.3.1 and 1.3.2) discuss how learner engagement is examined in a collectivistic culture in order to identify a potential gap for this study.

From what was discussed in Sections 1.2.3 and 1.2.4, there seemed to be the absence of the use of a cultural lens to investigate the dimensions of behavioural, cognitive, emotional, and social engagement in MOOCs in the context of collectivistic cultures such as Thailand. The objectives of this research were 1) to investigate learner engagement in MOOCs by reflecting Thai cultural needs, and 2) to develop a pedagogical model for Thai learners' cultural engagement in MOOCs. These objectives were addressed by the following research questions.

Central research question:

How and in what manner do Thai learners and instructors practise their cultural values in their engagement and in management of MOOCs?

Research sub questions:

- 1) How do Thai learners perceive their engagement dimensions within MOOCs, and how do they reflect Thai cultural aspects in their learning?
- 2) How do Thai instructors determine learner engagement dimensions within MOOCs, and how do they embed Thai cultural aspects in their teaching practices?
- 3) How are the learner engagement dimensions enacted in MOOCs interaction, communication, and collaboration?

This study was implemented based on the following assumptions:

- Learner engagement and cultural aspects are interrelated in the MOOCs environment.

- Cultural aspects play an important role in facilitating learning and teaching practices with MOOCs in collectivistic cultures.
- A qualitative study on interpretivism and thematic analysis is an appropriate methodology to investigate learner engagement within MOOCs in Thai culture.

1.4 Research design

I employed a qualitative approach, using interpretivism to allow me to produce a first-hand understanding of learner engagement from students and instructors in the context of MOOCs in Thailand. This qualitative study also allowed me to explore a real-life phenomenon of learner engagement with specific reference to the four engagement dimensions in depth through the six cultural dimensions of Thailand via support from the five Thai cultural values as a cultural lens as illustrated in the following table.

Table 1.1: Learner engagement dimensions, cultural dimensions of Thailand, and Thai cultural values

Dimensions	Components
Four learner engagement dimensions (e.g., Casimiro, 2016; D'Mello et al., 2017; Fredricks et al., 2004)	Behavioural engagement Cognitive engagement Emotional engagement Social engagement

Table 1.1 (continued)

Dimensions	Components
Six cultural dimensions of Thailand (Hofstede, 1984, 2011; Hofstede & Bond, 1984; Hofstede & Minkov, 2010).	High power distance High uncertainty avoidance Collectivism Femininity Normative society Restraint tendency
Five Thai cultural values (Podhisita, 998; Pornpitakpan, 2000; Tetiwat & Huff, 2003)	Thai karma Staying calm Gratitude and indebtedness Mercy and kindness Consideration

There were two sources of data in this study. I conducted semi-structured one-on-one interviews with learners and instructors for my primary data. A second source of data was performed through browsing of the discussion forums, as they may “reveal implicit problems and offer important insight into information about informal aspects of interactions and relations, which can be difficult to obtain through interviews” (Nørskov & Rask, 2011, p. 2). These two sources of data helped me get more in-depth information of how the learner participants perceived their engagement and how the instructor participants improved learner engagement, which provided triangulation of data.

I used thematic analysis for my data analysis. According to Braun and Clarke (2006), thematic analysis can be divided into six phases: 1. Familiarizing yourself with your data, 2. Generating initial codes, 3. Searching for themes, 4. Reviewing themes, 5. Defining and naming themes, and 6. Producing a report. First, in phase 1: Familiarizing yourself with your

data, thoughts about potential codes and themes for learner engagement were documented by applying Thai cultural features. Second, in phase 2: Generating initial codes, the initial codes were generated. Third, in phase 3: Searching for themes, the themes were articulated by considering hierarchies of concepts. As a result, the three significant topics as themes were noted by triangulating the student interview data, the instructor interview data, and the review of the course websites including the courses' social media. Fourth, in phase 4: Reviewing themes, the four dimensions of learner engagement and the themes were revisited and reviewed, which reconfirmed that the three themes were most significant across the four dimensions of learner engagement. Fifth, in phase 5: Defining and naming themes, the themes were defined and named. Sixth and last, in phase 6: Producing a report, the themes were described and interpreted, which justified the embedded values of Thai culture in the participant's experiences. More details of research design are available in the methodology chapter.

1.5 Contribution to knowledge

This research could provide an important opportunity for higher education to advance the understanding of learner engagement within MOOCs in collectivistic cultures. The field of learner engagement can be further developed for a holistic approach by adding cultural aspects and using anthropologists' cultural dimensions that will create a methodological change by building a new culturally inclusive conceptual framework for learning engagement.

Furthermore, as an outcome of this research, a proposed pedagogical model of understanding cultural learner engagement within a collectivistic cultural context, will make

a substantial connection between learner engagement theories and their practical engagement in diverse learning contexts. For example, the pedagogical model could be used as a cultural lens to design a MOOC course by holistically reflecting the aspects of behavioural, cognitive, emotional, and social engagement in similar contexts.

1.6 Contribution to practice

It is hoped that the findings of this research would be of significance to stakeholders within the area of MOOCs and online learning environments in several ways. This research will help add another layer of understanding of learner engagement to institutions, course instructors, and future students. First, institutions can benefit from a better understanding of learner engagement, which will help them plan, develop, and deliver culturally responsive MOOCs. Second, course instructors can take a cultural understanding of learner engagement into account by carefully designing learning activities and teaching strategies to involve students with their learning. Finally, future students can benefit from the findings of this research by considering how to prepare themselves based on learning activities and learner engagement-related items derived from this study to successfully undertake MOOCs and online learning in general.

1.7 Definitions

Throughout this document, definitions and key terms help establish an understanding of the key concepts used in this study. They are provided as follows.

Learner engagement, also known as student engagement, refers to how learners are with their learning and how connected they are with peers, classes, and institutions (Axelson & Flick, 2010). In the context of this study, there are four dimensions of learner engagement: behavioural, cognitive, emotional, and social.

Behavioural engagement refers to learners' persistence, effort, attention, participation, and involvement in learning activities (Al Mamun et al., 2016; Axelson & Flick, 2010; Bryson, 2016; Fredricks et al., 2004; Kahu, 2013; Radloff & Coates, 2010). It also refers to quality involvement in learning tasks such as asking questions, expressing ideas, giving feedback, or contributing to class discussions (Ardichvili et al., 2006; Lester, 2013).

Cognitive engagement refers to how learners co-construct knowledge and build a mutual understanding of academic tasks with others through various learning skills, critical, creative, and analytical. It involves students building an in-depth understanding of academic tasks to construct knowledge (Zepke, 2018). It is also regarded as an internal investment and effort leading to acquiring knowledge and skills (Newmann et al., 1992).

Emotional engagement is defined as positive feelings and negative feelings. Positive feelings, such as interest, enjoyment, and happiness, are seen as a prerequisite of students' participation in a learning task (Curran & Standage, 2017); a source of learner intrinsic motivation (Hartnett, 2015; Li, 2015); and, a trigger to start an initial communication among students to allow for further interaction and collaboration (Pellas, 2014). Negative feelings, such as boredom, anxiety, sadness, and frustration, prevented students from participating in

learning activities by having no or less interaction with peers and instructors, resulting in the failure to increase students' motivation to learn (D'Mello et al., 2017; Lester, 2013).

Social engagement refers to collaborative learning: Instructors who promote collaborative learning with social engagement are able to provide an opportunity for students to collectively acquire new ideas and values from peers from different backgrounds (Mittelmeier et al., 2018). It also refers to a sense of belonging to a learning community as an outcome of collaborative learning and it further leads students to socially engage with peers and instructors, and deeply engage in learning (Masika & Jones, 2016).

Cultural engagement refers to Thai cultural aspects/values that play an important role in permeating the four dimensions of learner engagement. As cultural engagement appears to have an impact on the four dimensions, culture should not be a subordinate concept to learner engagement, but rather should remain a superordinate concept. In order to improve learner engagement, a pedagogical focus should remain on how the intangible aspects of culture are integrated into the tangible learning and teaching materials (Henderson, 1996).

Massive open online course, also known in short as MOOC, refers to an online course provided for a scalable number of students worldwide with an opportunity to access to higher education for free (Burd et al., 2015; Evans & Myrick, 2015).

Collectivistic culture refers to a community that values the needs and goals of a larger group. Community members value group cohesion by demonstrating a sense of belonging and community and are guided predominantly by the collective entity's norms and

obligations (Fernandes et al., 2017; Masika & Jones, 2016; Suh & Lee, 2020). Relationship, family, and community are usually in priority.

1.8 An overview of the chapters

This thesis consists of seven chapters. This chapter provided an overview of this study by describing the background of the study. It also described the research problem and identified a potential knowledge gap for this study to address by considering the two aspects of cultural considerations of learner engagement and learner engagement approaches, followed by research objectives and questions. Additionally, it introduced an overview of research design by highlighting how to collect and analyse data. This chapter finally provided an account of the study's contribution to knowledge and practice, followed by definitions and an overview of the chapters.

Chapter 2 concentrates on two main parts of the literature: cultural considerations of learner engagement in MOOCs learning environment and learner engagement dimensions and their cultural considerations. The cultural considerations of learner engagement in the MOOCs learning environment section presents the need to include cultural engagement in online learning environments in this study by considering Hofstede's six cultural dimensions and the five Thai cultural values. In the learner engagement dimensions section, four dimensions of behavioural, cognitive, emotional, and social engagement are discussed to argue that cultural engagement is needed for quality learner engagement.

Chapter 3 outlines the theoretical framework for data analysis by first exploring connectivism as a theoretical lens for understanding the four dimensions of learner

engagement. It is accompanied by the connectivist MOOCs' functionalities to propose a theoretical framework of how the three functionalities of connectivism shaped the four dimensions of learner engagement in a MOOCs learning environment.

Chapter 4 describes the research methodology and design that are employed in this study. There are seven main parts: research methodology: 1) interpretivism; 2) research site with a two-step process of obtaining contextual understanding and selection of appropriate cases in order to select the most appropriate MOOC courses; 3) research participants: Thai learners and Thai instructors; 4) data collection: semi-structured interviews and browsing of discussion forums; 5) data analysis: the six phases of thematic analysis; 6) trustworthiness: credibility, transferability, dependability, and confirmability; and 7) ethical considerations.

Chapter 5 presents the thematic analysis of the collected data and its findings. The objective of analysis is to understand learners' engagement in the Thai MOOCs courses and cultural relevance. The findings are presented based on the first two research sub-questions. In this chapter, there are two main sections based on the above research sub-questions: learners' perceptions of their engagement dimensions and cultural impacts, and instructors' improvement of learner engagement dimensions and cultural reflections. The chapter ends with the articulation of the discussion point(s) relating to cultural aspects, which will be explored further in the next chapter.

Chapter 6 first discusses the findings based on the research sub-questions by further exploring the discussion points outlined from the previous chapter in relation to cultural engagement in comparison to previous studies/existing literature. It is accompanied by a

discussion on cultural engagement for MOOCs development and suggests a new cultural engagement framework to improve authentic learner engagement.

Chapter 7 begins with an overview of research outlining the findings from this study. It is followed by the research contributions the findings make to existing knowledge to advance the understanding of learner engagement within MOOCs learning environments. It also discusses the limitations of this study, recommendations, and the directions of future research. The chapter concludes the overall study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The first chapter provided an overview of the study by discussing the background and research problem of the study. It also discussed how cultural aspects need to be considered, especially in non-individualistically cultural contexts, to improve authentic learner engagement. This chapter first reviews learning management systems and online learning (2.2). It then introduces Massive Open Online Courses (MOOCs) through understanding the four elements of MOOC, MOOCs with various perspectives, and Thai MOOCs as a study context (2.3). The importance of cultural engagement in MOOCs learning environment is discussed (2.4), followed by a section on cultural engagement in MOOCs by addressing Thai cultural values to illustrate how these impact learning. This is followed by an account of Hofstede's cultural dimensions to establish how Thai cultural values are significantly different and how these impact on learning (2.5). A review of the existing learner engagement frameworks is required because the multiple engagement dimensions and forms of cultural engagement are significant to understand learner engagement as a whole in a MOOC learning environment (2.6). The four dimensions of learner engagement are then discussed (2.7). The chapter ends by presenting a Thai cultural learner engagement framework in a MOOCs learning environment (2.8).

2.2 Learning management systems and online learning

Learning management systems (LMS) are used to support higher educational institutions' teaching and learning programs. Coates et al. (2005) argued that:

LMS are enterprise-wide and internet-based systems such as WebCT and Blackboard that integrate a wide range of pedagogical and course administration tools. These systems have the capacity to create virtual learning environments for campus-based students and are even being used to develop fully online virtual universities. (p. 19)

LMS, which are also known as “learning platforms, distributed learning systems, course management systems, content management systems, portals, and instructional management systems” (p. 20), are developed by using various course management and pedagogical strategies to design and deliver online higher education learning environments (Coates et al., 2005). Further, as Turnbull et al. (2020) stated, “LMSs not only enable the delivery of instructions and electronic resources to improve and augment student learning in a collaborative environment, but also allow instructors to focus on designing meaningful pedagogical activities ” (p. 1).

LMSs have been adopted by higher education institutions to offer diverse learning modes. A typical mode is a combination of traditional and digital learning, and its variances are inclusive of flipped learning, blended learning, and fully online learning, which are the most popular styles according to Al-Busaidi (2012), Coates et al. (2005), and McLaughlin et al. (2014). First, *flipped learning*, which is also known as a flipped classroom, is an inverted classroom-based learning approach that focuses on learner engagement to facilitate a discussion among learners and problem-solving activities for a greater understanding of a

particular topic being discussed (McLaughlin et al., 2014). In this learning mode, a learner-centred and instructor-facilitated pedagogical strategy is emphasised. The instructional content with specific topic area is often available online via LMS for learners to read and complete as homework prior to coming to class to deepen their understanding through sharing and discussing with peers. In order to maximise learning experiences, Elfeky et al. (2020) stated, “Learning management systems in flipped classes can involve many out-of-class and in-class activities like role-play, debates, quizzes, and group presentations” (p. 3).

Second, *blended learning* involves online and classroom learning that complement one another to broaden learners’ understanding of a particular topic. In a blended learning mode, LMS enables learners to access course materials at their own pace anywhere, anytime (Al-Busaidi, 2012). In this learning mode, a mix of e-learning or virtual and face-to-face learning experiences in the classroom is formed in either synchronous or asynchronous ways. Technology-mediated activities about learning content and delivery are utilised to enhanced students’ learning achievement, particularly through individualised learning support systems. In addition to the above understanding, Bervell and Umar (2020) add that, “LMS is supposed to bridge this gap in order to foster ongoing collaboration and interaction outside the face-to-face mode” (p. 2).

Lastly, in a fully online learning mode, LMS helps maximise learners’ learning experiences by allowing them to access various learning resources and materials made available online to successfully construct knowledge (Coates et al., 2005). In this learning mode, individualised learning through blended learning is further enhanced in that learners are regarded as autonomous in finding relevant information available in a network using

technological skills to construct knowledge. As Coates et al. (2005) have argued, proponents of online learning highly value the educational benefits of digital technology, and they believe that “Internet technologies can be used to make course contents more cognitively accessible to individual learners by allowing them to interact with diverse, dynamic, associative, and ready-to-hand knowledge networks” (p. 24). Scholars (e.g., Kay et al., 2013; Turnbull et al., 2020) have agreed that LMS as a learning platform can enhance teaching and learning, and its underlying assumption would be that learners are interconnected or can be re-connected in a digitally networked learning environment. With this assumption, the instructors are expected to design and create learning materials to facilitate learners to interact with one another (Kay et al., 2013).

The above three learning modes are also common in MOOCs, and MOOCs use LMS. Major MOOC providers such as Coursera and edX share common features with LMS. Gillet (2013) claimed that:

As LMS, MOOCs platforms enforce teacher- and session-driven activities to be carried out with preselected resources at a specific time; the resources being in this case mainly short video sequences of about 15 min with associated quizzes delivered weekly on a semester basis. (p. 3)

The next section explores the emergence of Massive Open Online Courses (MOOCs) as part of the LMS.

2.3 Massive Open Online Courses (MOOCs)

This section sets out the study background for this research. It first introduces the four elements of the MOOCs (2.3.1) and then offers an understanding of how MOOCs are developed from different perspectives (2.3.2). The section ends with MOOCs in Thailand (2.3.3).

2.3.1 Understanding MOOCs with the abbreviation

The term *MOOC* was first coined by Dave Comier in 2008 to describe an online course called *Connectivism and Connective Knowledge or CCK08* that was developed and taught by George Siemens and Stephen Downes at Alabaska University, between September to November 2008 (Conole, 2016; Zheng et al., 2018). This course not only provided for twenty-five on-campus students who paid fee for credit, but also was made available for learners worldwide to register. Consequently, more than 2,300 learners participated in the course without paying a fee or demanding credit (Yuan & Powell, 2013).

Downes (2012), a co-founder of the so-called first MOOC, CCK08, stated that he and Siemens did not intend to create a MOOC. They only wanted to create an online course that was derived from two influences: open online courses and massive online conferences (Downes, 2012). The first influence, open online courses, was inspired by David Wiley's Introduction to Open Education course providing up-to-dated concepts of open education, including copyright, licensing, and sustainability offered in 2007 (Downes, 2012). The second influence, the emergence of the massive online conference, refers to a large number

of participants involved in a successful conference on Connectivism offered on 2-9 February 2007. In this conference, George Siemens was a conference facilitator, and Steven Downes was a participant. The conferences declared that the characteristics of courses were open, online, and involved a large number of learners, which became the basis for what is known as MOOCs: Massive, Open, Online, Courses.

Today's version of *MOOC* illustrated in Figure 2.1 includes the four features: massive, open, online, and course.

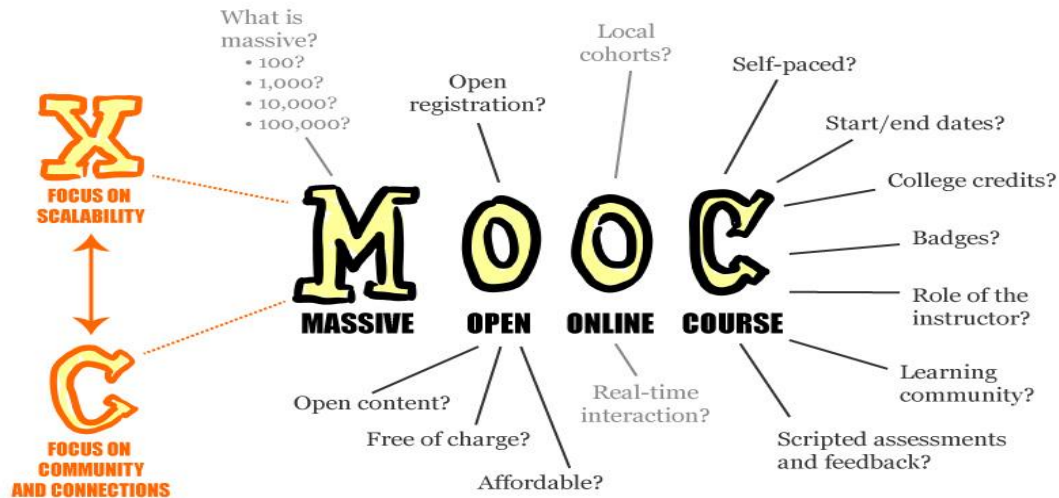


Figure 2.1: MOOC characteristics (Harven, 2014)

First, *massive* refers to a large number of learners undertaking MOOCs. Generally, the number of learners in a MOOC course can range from tens of thousands up to over 100,000. For example, in 2011, Sebastian Thrun and his colleagues offered an online course called *Introduction to Artificial Intelligence (AI)*. There were 160,000 learners from more than 190 countries registered (Zheng et al., 2018), which contributed towards the popularisation of the term *MOOC* among institutions, private organisations, and individuals

(Yuan & Powell, 2013). With regard to the concept of *a massive number of learners*, the AI course was seen as one of the most successful examples of MOOCs in terms of a large number of registrants (Zheng et al., 2018). However, although there were many registrants, only 35,000 or 21.8% of learners completed this course. This creates a challenging task for stakeholders to increase the number of MOOC completers.

According to data about MOOC registrants collected by Class Central (Shah, 2018a), the total number of new MOOC registrants worldwide decreased from 23 million in 2016 to 20 million in 2017. This was the first time that Class Central noted a slowdown in the number of new MOOC registrants. The slowdown may result from a frequency of MOOC offerings, as MOOCs were initially offered only once or twice a year. However, the number of new MOOC registrants can be increased, as many MOOCs are recently available as self-paced learning (Shah, 2016). This means that learners can freely undertake MOOCs anytime throughout the year. This self-paced learning mode, then, may help attract more MOOC learners.

Second, *open* refers to open registration, open course content, and free for learners. Yuan and Powell (2013) pointed out, “the development of MOOCs is rooted within the ideals of openness in education, that knowledge should be shared freely, and the desire to learn should be met without demographic, economic, and geographical constraints” (p. 6). *Open registration* means that anyone is eligible to register for MOOCs without any entrance requirements. In other words, MOOCs offer open enrolment without requiring any qualifications or pre-requisites such as a certificate, diploma or degree. Furthermore, open registration attracts participants of diverse ages, genders, employment status, socioeconomic

status, education levels, and locations in the world (Glass, Shiokawa-Baklan, et al., 2016). For instance, when considering *world region*, one-third of MOOC learners are in the United States, another one-third of registrants are in Europe, and the rest are from non-Western countries (Glass, Shiokawa-Baklan, et al., 2016). However, an openness for registration is still challenging for those learners who find it difficult to gain access to an internet connection (Garrido et al., 2016) or who do not have a sufficient command of English to undertake MOOCs offered in English, as most courses are available in English (Thaipisutikul & Tuarob, 2017).

The term *open* also refers to *open course content*. In undertaking MOOCs, learners are likely to be able to access learning content anytime, anywhere (Kennedy, 2014). For example, many learners who register for the self-paced learning MOOCs can gain access to their course content throughout the year (Shah, 2016). However, some MOOCs do not allow learners to continue to access the course content after the course is finished. For instance, the course content in *FutureLearn* is only available for learners during the course plus 14 days after the course ends. For continuous access, they need to upgrade it by paying £24 – 69 (Shah, 2017a). The upgrading gives learners unlimited access to the course content, including articles, videos, peer review steps, quizzes and assignments, and course tests, as long as the course exists in *FutureLearn*. This revenue model can be also seen in other MOOC providers, such as Coursera, with Specializations in a series of related courses (Shah, 2018b). In fact, the free aspect of MOOCs is a problem in terms of a sustainable business model. Burd et al. (2015) argued that business models may help solve an issue of sustainability of MOOCs. They suggested, “three of the most frequently cited business motivations for offering

MOOCs include (a) charging for certificates, (b) linking students with potential employers, and (c) charging for supplementary services” (p. 40). In addition, Class Central has recently outlined six different tiers by which some MOOC providers will monetise on their offerings (Shah, 2018b). These tiers include free, certificate, micro-credential, credit, online degrees, and corporate training. As a result, this six-tiered monetisation model may allow institutions and providers to become sustainable in long-term MOOC offerings. Although the revenue models are involved with MOOC offerings, learners can still undertake many MOOC courses free of charge unless they request a certificate or degree.

Third, *online* refers to the fact that MOOCs are offered online to any learner with a computer or other devices and an Internet connection (Evans & Myrick, 2015). Kesim and Altınpulluk (2016) explained that MOOCs allow learners to learn online via several interactive tools such as videos, presentations, and audio. In this online learning mode, knowledge is mostly constructed through online interaction, participation, and collaboration among learners (Grünewald et al., 2013; Zheng et al., 2018), especially for the connectivist MOOCs, which emphasise “significant interaction with a distributed network of peers” (Conole, 2016, p. 7). According to Conole (2016), the degree of communication and degree of collaboration are seen as the important factors to promote online interaction, participation, and collaboration in a MOOCs learning environment. Quality online interaction and collaboration via various communication tools such as discussion forums seem to be determinants to quality MOOC learning (Glass, Shiokawa-Baklan, et al., 2016).

Finally, MOOC *courses* are structured in a specific area of study. Higher education institutions have worked closely with providers to design and offer MOOC courses to meet

learners' needs and preferences. Most courses are self-paced courses ranging from 4-10 weeks. They allow students to enrol and study at any time throughout the year. Typically, each week students are required to watch a number of short videos that provide key concepts of the course, followed by quizzes appearing in the forms of both formative and summative assessment (Coffrin et al., 2014). According to data gathered in 2017 by Class Central, the most popular MOOC subject areas include technology (19.9%), business (18.5%), social sciences (10.6%), science (10%), humanities (9.5%), education and teaching (8.5%), health and medicine (7.2%), engineering (7.1%), art and design (5.5%), and mathematics (3.3%) (Shah, 2018a).

The four elements of MOOCs reviewed above provide a contextual understanding of what to consider and how to select the most appropriate cases for this study. With the original meaning of the terms, MOOCs are likely to offer an opportunity for a large number of students to gain access to online courses for free in higher education. Although the terms *open* and *free* become less meaningful due to commercialised MOOCs, the original meaning is still valid for an educational understanding of MOOCs.

2.3.2 Understanding MOOCs from educational, pedagogical, economic, policy, and socio-cultural perspectives

There are a range of perspectives that are influencing the development of MOOCs as shown in Figure 2.2. Five perspectives – educational, pedagogical, economic, policy, and socio-cultural, were identified through the literature review (e.g., Babanskaya et al., 2016;

Karnouskos, 2017; Lim et al., 2017; Pilli & Admiraal, 2017; Wildavsky, 2015; Yuan & Powell, 2013).

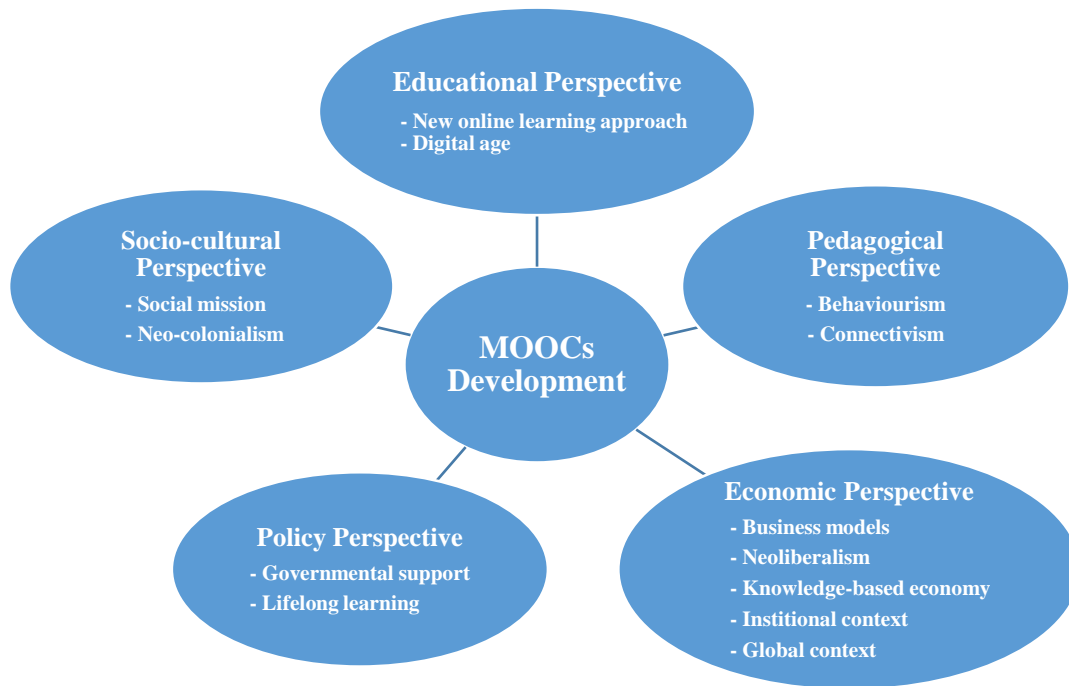


Figure 2.2: Perspectives influencing MOOCs development

Educational perspective

The original purpose of MOOCs development was to provide additional online learning for as many learners as possible, including those learners from a low-income background, to gain new knowledge, or strengthen current knowledge for free (Pilli & Admiraal, 2017; Rambe & Moeti, 2017; Yuan & Powell, 2013). From being a new way of providing access to online learning, MOOCs have gradually received attention from higher education institutions to create online courses to attract more external/online learners to participate in their courses. For instance, the more learners participate in MOOCs, the more

opportunities learners will have to get acquainted with campus-like courses and teaching styles. This might lead institutions of higher education to increase the number of students on their campuses. In other words, institutions of higher education regard MOOCs learners as prospective learners (Zheng et al., 2018). Furthermore, it is also observed that MOOCs, as online courses to encourage prospective learners to enrol as on-campus students, help higher education institutions continue to exist and to compete with other institutions in a digital age (Siemens, 2005).

In brief, ways of acquiring and constructing knowledge have changed in the digital age. According to Siemens (2012), conventional or face-to-face learning and teaching has been challenged by the digital age, especially as online learning environments become popular among learners to fulfil educational and professional needs (Howarth et al., 2016). Due to such a change of knowledge construction, higher education institutions continue developing MOOC courses to promote lifelong learning. For example, an analysis of MOOCs under a Teaching Innovation Project funded by the University of Cantabria's Vice-Rectorate for Teaching Staff conducted in Spain revealed that the development of MOOCs helped provide learners with lifelong learning opportunities (Salvador & Rodríguez-Hoyos, 2016). In the study, the participants perceived MOOCs as ways to improve their teaching, share resources with fellow teachers and students, and promote educational experience (Salvador & Rodríguez-Hoyos, 2016). From an educational perspective, Zheng et al. (2018) argued that if learning via a digital platform cannot provide a human interaction environment, it cannot be considered authentic learning. Furthermore, they questioned how MOOCs can

serve all learners: a well-designed MOOC course delivered by a famous university professor would not be able to make all learners from different backgrounds satisfied with its delivery.

Pedagogical perspective

MOOCs require diverse pedagogical strategies (Claffey, 2015), and extended MOOCs known as xMOOCs and cMOOCs as connectivist MOOCs, are used to respond to this need for diversity (Conole, 2016; Kesim & Altınpulluk, 2015; Lim et al., 2017; Renda & Kuys, 2015; Zheng et al., 2018).

xMOOCs have adopted behaviourist learning theory with a focus on knowledge transmission (Kesim & Altınpulluk, 2015). xMOOCs tend to leverage an existing traditional learning and teaching theory by offering a new learning platform in online learning environments (Zheng et al., 2018). It is argued that xMOOCs only offer learning and teaching activities from offline to online (Zheng et al., 2018). In behaviourist learning theory, xMOOC instructors have the full responsibility for delivering MOOCs to suit learners' needs and interests for quality learning outcomes. Course instructors are required to provide teacher-centric lectures (Lim et al., 2017) and encourage individual learning rather than cooperative and collaborative learning (Conole, 2016). Although xMOOCs provide discussion forums for students to interact with peers, they may perceive the tool as irrelevant to their learning and do not use it effectively because many MOOCs provide inadequate scaffolding (Conole, 2016).

In contrast to xMOOCs, cMOOCs exhibit a distinctive pedagogical model of connectivism (Conole, 2016; Lim et al., 2017; Renda & Kuys, 2015). According to Siemens

(2005) (the originator of connectivism) and Downes (2012) (a connectivism theorist), cMOOCs are regarded as a networked place where learners are encouraged to co-construct knowledge and interactions with peers via networks. In this pedagogical understanding, course instructors are to facilitate learners to actively interact with information made available in the networks, and then share it with peers. Downes (2012) also argued that cMOOC instructors need to be attentive, creative, and responsive to help learners aggregate online information to co-construct their own knowledge and share it with peer learners (criticisms of connectivism are available in the next chapter, and there is a further discussion on xMOOCs and cMOOCs in the next section).

In practice, when delivering MOOCs, a course instructor should consider appropriate pedagogical strategies, including how to deal with a large number of learners, how to promote learner interaction and engagement, and how to respond to learners when they need help. As MOOCs are open for diverse learners with different ages, cultures, and nationalities (Lim et al., 2017), a course instructor needs to understand learners' backgrounds and needs. In particular they need to be aware that the ways of thinking and knowing are different among learners from different cultural backgrounds, which is a primary concern of this study. Many researchers have pointed out that learners from Western cultures tend to focus on their personal goals by independently working on their own project, whereas those from non-Western cultures value the goals of a larger group and prefer to work with others (Ardichvili et al., 2006; Arpacı & Baloğlu, 2016; Cho & Lee, 2015).

Furthermore, a MOOC instructor also needs to promote interaction and engagement among learners, which requires deep understanding of cultural backgrounds, promoting

diverse types of interactions and engagement. Interaction and engagement are considered two key factors that play an important role in helping learners to succeed in learning via MOOCs and refrain from dropping out (Milligan et al., 2013; Ramesh et al., 2013). This means that the key functionalities of connectivist MOOCs focus on interaction, communication, and collaboration.

Economic perspective

MOOCs are considered to contribute to the importance of the knowledge-based economy, in which MOOCs are seen as an enabler for increasing employee competence. Karnouskos (2017) asserted, “Competent people are the key to future success and offer organisations their only sustainable competitive advantage. Among the plethora of available tools to enhance employee competencies, massive open online courses (MOOCs) are an emerging phenomenon” (p. 1). To put it simply, MOOCs are likely to be used as an alternative tool to increase productivity and economic growth. With these free-of-charge MOOCs, employees are able to not only gain new knowledge, but also strengthen existing knowledge needed for their jobs, resulting in positive increases in the global economy (Karnouskos, 2017).

From this economic perspective, neo-liberalism is the predominant ideology in developing MOOCs. MOOCs have been developed as “a profound transformation of higher education based on the democratisation of knowledge and access, contestability of markets and funding, new digital technologies and greater global mobility and integration with industry” (Peters, 2016, p. 67). The concept of neo-liberalism relating to the development of

MOOCs highlights an increasing collaboration between universities, big media, and publishing organisations to not only offer an opportunity for learners to access higher education across the globe, but also to generate revenue from this offering (Peters, 2016). As a result, the concept of neo-liberalism allows the MOOC providers and higher education institutions to produce online courses at no or low cost, enhancing learning opportunities with more educational choices for learners. In this sense, MOOCs become a platform for a knowledge-based economy where knowledge creation, social networks, social recognition, and informal learning are used to share knowledge and experiences (Aparicio et al., 2014).

However, the development of MOOCs based on neo-liberalism, focusing on generating revenue, may fail to accommodate what learners need. MOOC developers have initiated ways of monetisation to generate revenue via various business models (Babanskaya et al., 2016). Examples of business models include course certification; fee-based assignment marking; and the sale of learner data to companies and advertisers (Yuan & Powell, 2013); course design and consulting; personalised student profiles; and, paid courses (Technavio, 2015). With these business models, higher education institutions are likely to perceive themselves as sellers and perceive learners as buyers (Peters, 2012). This means that higher education institutions focusing on revenue generation may fail to accommodate learners' needs when designing and developing MOOCs.

Policy perspective

The policy perspective involves governments encouraging higher education institutions to develop MOOCs to promote lifelong learning. The development of MOOCs is

not only for their on-campus students, but also for various groups of learners with an opportunity for lifelong learning (Babanskaya et al., 2016). In the case of employees, MOOCs are seen as enablers to improve employee competencies (Karnouskos, 2017). In response to this lifelong learning opportunity, many governments have set out policies to encourage higher education institutions to develop MOOCs to provide people with opportunities to improve their quality of life skills and to enhance their engagement with this rapidly changing world.

MOOCs are developed to resolve a problem of lifelong learning constraints. Buhl and Andreassen (2018) argued, “The characteristics of MOOCs are of interest from a lifelong learning perspective because they offer a possible solution to a rapid and increasing need for education worldwide” (p. 151). One view is that lifelong learners, especially for those who are employees with limits on time and finances, can undertake MOOCs anywhere, anytime at no or low cost. This means that MOOCs can help connect education and employment for these lifelong learners. An example of this is a case of a development project of a MOOC for lifelong learning at the Tomsk State University (TSU) in Russia. MOOC developers and policy makers were both involved in many stages, including planning, production, promotion, teaching, and analysing the MOOC project (Babanskaya et al., 2016). These stages seem to represent the practical reality of the whole process of developing a quality MOOC to offer an opportunity for lifelong learning. The review stage of a project suggests that the participation of the learners in the learning process was a crucial success. The authors further stated that in this project, TSU MOOC instructors encouraged online learners to be active forum participants, organised informal videoconferences, and rewarded the best learners

(Babanskaya et al., 2016). These teaching and learning strategies to attract learners' involvement can significantly contribute to learner engagement. However, it also seems to be a challenging task to develop a MOOC as a promising tool for lifelong learning for learners who have different needs and are from different cultural backgrounds. A pragmatic MOOC that considers these challenges will keep learners engaged with active collaboration and participation with peers and teaching and learning activities.

Socio-cultural perspective

A socio-cultural perspective on developing MOOCs includes considering issues of social class and employment opportunity. Learners who are well-educated and employed have been initially targeted in developing MOOCs. They are considered to be potential MOOC learners because they are likely to complete courses with fewer learning difficulties, and possess the necessary learning tools needed for undertaking MOOCs, such as good quality computers, laptops, and mobile devices with a high speed internet connection (Mai & Poppe, 2016). From this social status advantage, initial MOOCs have been developed in North America and Europe to target such learners (Christensen et al., 2013; Zhenghao et al., 2015). Their general demographic characteristics include being middle-class learners (Chen, 2014), male registrants (Nesterko et al., 2013), and young adults aged between 25-34 years old (Dillahunt et al., 2014). In essence, institutions in higher education are encouraged by the government to be responsible for providing MOOCs to society as an alternative way of gaining learning experience to have a better quality of life (Loeckx, 2016). Furthermore, as Lane et al. (2014) argued, MOOC offerings are expected to create job opportunities by expanding knowledge on a particular area. As a result of these expectations, a number of

projects on MOOCs development have been initiated by many higher education institutions to serve this social mission. However, improvement of employment opportunity is still challenging for higher education institutions in designing MOOCs because of the absence of studies about how to capture learners' needs, interests, and preferences, and, in particular, non-Western learners' cultural needs.

The socio-cultural perspective also considers the issue of neo-colonialism when developing MOOCs. In essence, MOOCs are *instruments of neo-colonialism* (Wildavsky, 2015) and *Western academic systems* (Gunawardena et al., 2003). This means that borrowing teaching and learning practices from the West to develop MOOCs in non-Western contexts may not produce completely positive results. A number of cultural conflicts and mismatches may occur in this cultural neo-colonialism (Nguyen et al., 2009). For example, a feeling of losing face may affect students in Asian contexts by not actively participating in teaching and learning activities designed by the West. With specific reference to Thailand, although Thai learners prefer to learn in friendly and collaborative learning environments (Gómez-Rey et al., 2016; Hofstede, 2011), they may feel uncomfortable about openly contributing and constructing knowledge via networks and interactions with peers. This feeling that affects how they participate in learning and interact with peers may result from culture-related influences. According to Hofstede (2017a), Thai culture is regarded as having high power distance, high uncertainty avoidance, collectivism, femininity, normative society, and a restraint tendency based on his six cultural dimensions. These cultural dimensions may either positively or negatively influence Thai learners' collaboration, interaction, and

participation when undertaking MOOCs. I discuss Hofstede's dimensions (Hofstede, 1984, 2011; Hofstede & Bond, 1984; Hofstede & Minkov, 2010) in detail in Section 2.2.3.

Based on a discussion on the five perspectives above, this research focuses primarily on the two pedagogical and sociocultural perspectives in terms of learner engagement. With cultural considerations, instructors should consider appropriate pedagogical strategies by understanding learners' backgrounds and needs, especially their ways of thinking and knowing that are different among learners of different cultural backgrounds. For the sociocultural perspective, the cultural considerations need to be structuralised within educational contexts (e.g., learner engagement), and this structuralisation can draw on anthropologists' cultural studies (e.g., Hofstede's cultural dimensions). To do so, an underlying pedagogical understanding of MOOCs needs to be further articulated.

2.3.3 MOOCs in Thailand

In Thailand, one of the most important national initiatives, digital Thailand (Thailand 4.0), has been announced by the Thai government, and focuses on the introduction of innovations in all sectors, including education, to foster the nation's innovation and sustainable competitive advantages (Lake, 2020). From the national initiatives, the emergence of MOOCs then attracted attention among Thai higher education institutions to provide additional educational opportunities for Thai learners. Thaipisitukul and Tuarob (2017) asserted that one of the purposes of MOOCs development is to "share human resources and educational resources, including learning materials, instructors, and infrastructure in order to minimise investment" (p. 1). They further argued that by sharing

these resources, MOOCs are offered as ways to increase educational opportunities for learners. In addition, Thai MOOCs are developed to serve as a lifelong learning opportunity for Thai people (ThaiMOOC, 2018). This educational purpose appears to be along the same lines as proposed in Western MOOCs, but, the key different here is that Thai MOOCs are likely to be developed and offered predominantly for Thai learners. As a result, recently, more than 40 Thai universities have joined the MOOCs development under a project called ‘Thailand Cyber University’ (ThaiMOOC, 2018).

In 2017, Thailand Cyber University (TCU) launched a project to collaborate with 47 Thai universities to deliver approximately 200 Thai MOOC courses (Thaipisutikul & Tuarob, 2017). TCU, under the Office of the Higher Education Commission (OHEC), Ministry of Education, is responsible for seeking cooperation with national and international institutions (Vorasuang et al., 2010). Additionally, TCU plays a major role in working closely with Thai and international educators, researchers, faculty, and students to deliver standard MOOCs (ThailandCyberUniversity, 2015). Recently, Thai MOOC courses have been offered in many disciplines such as technology, business, teaching and learning, language, culture, and ASEAN studies (ThaiMOOC, 2018). As of 6 February 2018, examples of current MOOC courses are Individual Development Planning, Innovation and Information Technology in Education, Civil Engineering Drawing and Reading, Railway Technology and Transportation Management, Advanced Photography for Advertising, and Sequential Circuit Design.

The launch of *ThaiMOOC* as the official MOOC platform of Thailand in 2017 is regarded as a new regional MOOC provider in non-Western contexts (Shah, 2018a). As Thai

MOOCs are developed for Thai learners, their major audiences are employees, entrepreneurs, students, and teachers, whereas their minor audiences are general people who are interested in undertaking MOOCs (ThailandCyberUniversity, 2018).

However, there are some challenges in developing Thai MOOCs. According to Thaipisutikul and Tuarob (2017), these challenges are related to IT infrastructure and Thai culture-related culture. For example, some MOOC instructors are seen as conservative instructors. They may feel “uncomfortable sharing their teaching techniques on media that is publicly accessible, since they may not want their teaching styles to be copied or imitated. It seems to be a barrier to knowledge sharing practices on MOOCs” (Thaipisutikul & Tuarob, 2017, p. 2). For Thai learners, struggling with other languages may affect learners’ competence to successfully undertake MOOCs. For instance, some MOOC courses containing specific technical English terms and jargon may make it difficult for Thai learners to understand the course content (Gulatee & Nilsook, 2016). In addition, supporting staff who have only basic skills of IT to create course digital content such as video lectures may cause a frustration or delay in delivering MOOC courses (Thaipisutikul & Tuarob, 2017). In this case, these challenges are likely to cause slowdowns in developing Thai MOOCs.

In conclusion, this section provides a new way to access to higher education through MOOCs. Based on the four elements of MOOC, these online courses are developed to serve a number of learners from worldwide at no or low cost. MOOCs are divided into xMOOCs and cMOOCs. xMOOCs that have adopted behaviourist learning theory focus on knowledge transmission, whereas cMOOCs that have adopted a pedagogical model of connectivism focus on knowledge that is co-constructed through networks and interactions with peers.

MOOCs have been discussed through the five perspectives (i.e., educational, pedagogical, economic, policy, and socio-cultural), and the MOOCs pedagogical strategies indicate that cultural aspects need to be considered, specifically cultural contexts that improve authentic learner engagement. As this study was conducted in a Thai cultural context using Thai MOOC courses, Thai cultural aspects must be considered to investigate Thai cultural learner engagement.

2.4 Importance of cultural engagement in MOOCs learning environment

Cultural engagement becomes a crucial factor that improves learner engagement in online learning environments including MOOCs. To enhance learner engagement, cultural aspects, therefore, need to be taken into consideration when developing and designing such courses, especially for online learning environments.

As mentioned in the above section regarding the rise of online learning, learner cohorts from different cultural backgrounds across the globe have become more diverse as they participate in online education. In some cases, learners who are from different cultural backgrounds may experience difficulty in learning when cultural aspects are not explicitly incorporated into pedagogical design and development of online courses (Hannon & D'Netto, 2007). Furthermore, cultural gaps between individuals have an impact on the quality of online communication and interaction and the participation rates (Hannon & D'Netto, 2007).

In online learning environments, culturally inclusive learning must be highlighted when developing courses such as MOOCs to assist learners who have culturally and linguistically diverse backgrounds (CLDB). Cultural inclusivity refers to how to provide

learning to learners based on their cultural needs to improve learner engagement. McLoughlin and Oliver (2000) argued, “one of the essential foundations of student-centred learning environments is cultural inclusivity with a focus on enabling learners to access learning resources in a manner that is congruent with their values, beliefs, and styles of learning” (p. 60). This means that instructors need to design and develop courses based on learners’ needs by embedding their values, beliefs, and styles of learning in teaching and learning activities to improve their interaction, communication, and collaboration with peer learners, which can lead to greater learner engagement. In their study on cultural inclusivity for Indigenous students in a learning management system, Dreamson et al. (2017) argued that “communication and collaboration are regarded key instructional dimensions for culturally inclusive learning in online learning environments”, and culture becomes prominent in both dimensions (p. 949). Specifically, their later study (2018) indicated that more human-to-human interactions via available communication tools and various collaborative models need to be designed and promoted for a greater level of cultural engagement among learners. They argued that the level of cultural engagement in online learning environments can be increased via interaction, communication, and collaboration. Scholars (e.g., Dreamson et al., 2017; Reedy, 2019) have argued that instructors need to design and promote culturally inclusive interaction, communication, and collaboration based on their cultural needs in order for learners to effectively learn by not only sharing their own cultural perspectives but also respecting those of others. For example, they suggested that multi-channelling using communication tools for one-to-one, one-to-many, and many-to-many communication can help facilitate diverse engagement and increase a sense of belonging to learning communities (Dreamson et al., 2018). This is because multi-

channelling expands the potential for communication and collaboration to be inclusive cultural diversity and needs, which supports the building of a shared collective identity for all learners (Dreamson et al., 2018; Petrossian, 2020).

The requirement for cultural inclusion is clearly not being addressed in the Thai MOOCs context. The failure to consider cultural inclusion may stem from MOOCs' original purpose of developing connectivism for learners from the same (western) individualistic culture as the developers. Signorini et al. (2009) claimed that “in nations with higher individualistic culture scores (e.g., the UK) students are expected to show individuality, the purpose of education is perceived to be ‘to learn how to learn’ [by individuals] and that learning is not confined to an age group” (p. 254). Because of this individualistic culture-driven education in Western contexts, course developers may overlook the relevance of cultural engagement or cultural aspects while designing a MOOC that is available to learners from many cultural backgrounds all over the world.

A possible way to improve cultural engagement is to mitigate potential cultural barriers. The need to improve learners' cultural engagement results from individuals possibly having to deal with cultural tensions when participating in group learning with diverse cultural group members (Mittelmeier et al., 2018). According to Liu et al. (2010), instructors are then required to take charge of controlling cultural barriers, such as linguistic backgrounds, communication tools for collaboration and interaction, and a lack of multicultural content. MOOC learners from Asian countries such as China also encounter culture-related factors such as language, instructional styles, such as the different ways Chinese and American teachers approach students (e.g., formal vs. casual), and institutional

norms based on an influence of neighbouring countries and religious beliefs (e.g., Confucianism, Buddhism, and Protestantism) (Chen, 2013; Wang, 2006). The potential cultural barriers presented above necessitate the integration of cultural diversity and inclusion into designing connectivist learning environments. In the Thai context, possible cultural barriers still need to be mitigated to enhance learner engagement, and there seems to be a lack of study to explore learner engagement through cultural engagement, such as the cultural perspectives of anthropologists.

2.5 Cultural engagement in MOOCs learning environment

McLoughlin and Oliver (2000) noted:

Culture pervades learning, and in designing instructional environments there needs to be serious debate about issues concerning the social and cultural dimensions of task design, communication channels, and structuring of information if the needs of culturally diverse learners are to be met. (p. 59)

As discussed above, MOOCs having a western orientation in educational content have a western-centric pedagogical approach that does not consider cultural diversity in learning. To comprehend the substantive impact of the lack of cultural attention that MOOCs have applied to understanding cultural differences and student preferences as based on cultural values, the following sections review cultural engagement in MOOCs that focuses on Thai cultural values (2.5.1) and Hofstede's cultural dimensions (2.5.2). The purpose of the review is to highlight the significant impact of cultural biases that are present in MOOCs to comprehend the differences between Thai values and western values. It also considers that "the instructional strategies and practices which are research-based are also culture-based,

and therefore might not be appropriate at all times and may need adaptation and modification” (Taheri et al., 2019, pp. 597-598).

2.5.1 Thai cultural values

One of the major influences that plays an important role in characterising Thai learners is Buddhism. Thailand is known as a Buddhist country and about 95% of its people are Buddhists (Tetiwat & Huff, 2003). The *Theravada*, or *Hinnayana*, the way of the elders, which is considered closer to the original teachings of the Buddha, is dominant in South Asia and Southeast Asia including Thailand (Bodhi, 2006). Thai people usually apply Buddhist teachings in various activities in society during their lifetime (Chinnawong, 2007). The main teaching of the Buddha is the Four Noble Truths with the Noble Eightfold Path. In this study, the above Buddhist teachings may have an influence on teaching and learning in Thai MOOCs. For example, they may be used to mitigate negative feelings such as boredom, anxiety, sadness and frustration when undertaking MOOCs (D'Mello et al., 2017; Lester, 2013) In addition, in terms of learner engagement, Thai learners can use the Four Noble Truths with the Noble Eightfold Path to improve a state of lacking behavioural, cognitive, emotional, and social engagement, whereas Thai instructors can redevelop and redesign the pedagogical strategies to help learners overcome those disengagement aspects such as negative feelings mentioned above. For the meaning and components of the above Buddhist teachings, Chinnawong (2007) stated:

The First Noble Truth is of suffering (*dukkha*) all life is permeated with suffering, sorrow, anxiety, discontent, and fear which underlie people's lives. Even in moments of happiness, we know that they will not last, and change, loss, sickness, and dying

are experienced as suffering. The Second Noble Truth reveals the cause of suffering, clinging or attachment. The Third Noble Truth concerns the cessation of suffering. Suffering can be eliminated by not clinging which leads to perfect health, wholeness, equanimity and the supreme state of nibbana. The Fourth Noble Truth is the Noble Eightfold Path which consists of right understanding, right intention, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration. (p. 23)

In education, learners could use the Four Noble Truths to improve the sentiments such as mindfulness in their learning for greater life and job skills, as they allow learners to positively (often uncritically) accept difficulties and challenges as a normal part of life and work (Johansen & Gopalakrishna, 2006). Johnson (2002) argued:

The practices of meditation, contemplation, and mindfulness—the fundamental core of Buddhist teaching—are not currently part of education or learning in traditional institutions or frameworks. It is hoped that they could be a valuable tool for lifelong learners to incorporate into their lives. Conscious learning requires conscious living. (p. 111)

In Thailand, lay Buddhists are also encouraged and taught to undertake the training of the Five Precepts in their daily lives. The Five Precepts are “to avoid taking the life of beings, to avoid taking things not given, to avoid sensual misconduct, to refrain from false speech, and to abstain from substances which cause intoxication and heedlessness” (Chinnawong, 2007, p. 24). It is believed that lay Buddhists who regularly follow these Five Precepts can live happily and peacefully. It is also believed that the participants in this study who usually follow the Five Precepts as the fundamental characteristics of human being are considered to have high self-discipline, allowing them to better engage and focus on learning

activities. From being self-discipline, they are then likely to be keen to undertake MOOC courses and improve their learning engagement, especially the aspects of behavioural and emotional engagement.

Thai cultural values are underpinned by Buddhist teachings. These teachings are consistent and help interpret the six cultural dimensions for Thai culture. For example, *high power distance* affects ways of interacting, communicating, and collaborating between senior students and younger students, and between students and instructors in online learning environments. Younger students with less power may hesitate or feel uncomfortable to interact with senior students or instructors. This situation may be a result of Thai Buddhist culture because Thai people are taught to consider the different roles in society such as *adults and children*, and *teachers and students* (Thammetar & Duangchinda, 2012). These roles are likely to be found, in Podhisita's study of the relationships between Buddhism and Thai world views, as the world of hierarchy when “individuals are seen as higher or lower, younger or older, weaker or stronger, subordinate or superior, senior or junior, and rarely equal, in relation to one another” (Thammetar & Duangchinda, 2012, p. 178).

Literature indicates that the five key concepts of Thai cultural values are *kam*, *jai yen*, *katanyoo rookhun*, *metaa karuna*, and *kreng jai* (Podhisita, 1998; Pornpitakpan, 2000; Tetiwat & Huff, 2003). Understanding these concepts is critical to Thai culture, which not only enriches an understanding of the anthropologists' Thai cultural dimensions, but also allows instructors to authentically embed culture in their teaching and learning strategies for cultural inclusion and diversity to improve learner engagement, with specific reference to MOOCs learning environment. Each Thai cultural value is discussed as follows.

The first concept of *kam* or *karma* refers to a person's actions in the past that influence what happens to them in their present lives (Podhisita, 1998). This value of karma seems to be consistent with the Thai cultural dimension of *normative society* where people are more focused on the present and past. Following the value of karma, focusing on the past and present, learners who have invested time and effort, and actively participated in MOOCs' teaching and learning activities are likely to be successful in their learning as a result of what they contributed in learning in the past compared to their karma. This Thai cultural value of karma then has a positive impact on learning. In particular, Thai MOOC learners in this study who believe in karma are likely to comply with teaching and learning strategies when the course facilitates interaction, communication, and collaboration with peers and instructors in a learning community, as they will believe that doing this can help fulfil their current expectations such as knowledge and the skills.

The second concept, *jai yen*, literally translated as cool-heart, refers to a state of *staying calm*. Tetiwat and Huff (2003) noted that in social interaction, Thai people place a strong emphasis on explicit calmness, and it is improper for them to express personal feelings such as dislike or anger in public. Thus, they tend to "avoid open conflict because cool-heart can be considered an intelligent social response as well as a commendable act" (p. 240). In a MOOCs learning environment, this value is likely to prevent learners from showing their actual feelings when engaging and interacting with others, which is known as a *restraint tendency*, according to Hofstede (2011). Such a cultural tendency could lead students to be emotionally and socially disengaged. However, this cultural value could be taken into consideration by instructors when designing culturally inclusive learning in order to promote

learners' interactions via communication tools such as discussion forums for greater social engagement. For example, a state of staying calm may help enhance a longer presence when the course facilitates interaction, communication, and collaboration among learners by providing more feedback, responding to the original posts, or posting a new question seeking more opinions from peers resulting in a deeper understanding of topics being discussed. This Thai cultural value can be then used to observe Hofstede's restraint tendency that is considered an important quality for learners when undertaking online courses because improving and maintaining positive feelings can help enhance their emotional and social engagement.

The third concept of *katanyoo rookhun* refers to *gratitude and indebtedness*. This Thai value describes a situation where lower rank people have appreciation of favours that they receive from higher rank people (Tetiwat & Huff, 2003). In other words, learners should express gratitude and indebtedness to their instructors when receiving support and guidance in learning. For example, in a *high uncertainty avoidance* online learning environment, learners are likely to believe in instructors' expertise, resulting in making them feel comfortable with the provided learning structures such as detailed assignments, and instructors are expected to provide answers to all the questions from learners (Tetiwat & Huff, 2003). This could lead them to be emotionally and cognitively engaged in their learning. A feeling of gratitude and indebtedness may also help strengthen a sense of learning community, when learners comply with instructors' teaching activities, resulting in collective relationships for greater interaction, communication, and collaboration. In addition, this Thai cultural value can be used in conjunction with a *high power distance* in the context of

discussion forums. For example, saying *thank you* by a forum participant can be interpreted as an expression of showing gratitude from Thai learners to instructors or senior peers who are considered their superiors with higher social positions (Etae et al., 2017).

The fourth concept of *metaa karuna* refers to being *merciful and kind*. This value represents a way that higher rank people show their kindness to lower rank people (Tetiawat & Huff, 2003). In online learning environments such as MOOCs, instructors should be generous with their efforts and time to provide support and guidance to learners. For example, in *feminine* cultural dominant online learning, interactions between instructor-learner and senior learner-younger learner seem to help promote social engagement when instructors and senior learners show their friendliness and kindness by greeting or offering some help to younger learners (David, 2018; Ngampornchai & Adams, 2016; Tetiawat & Huff, 2003). Interactions are then seen as an outcome of having encouragement and kindness, which is demonstrated among these parties when they communicate and collaborate via major communication tools, such as discussion forums or via alternative communication tools, such as social media outside class hours (Snodin, 2013). In the context of online discussion forums such as MOOCs, learners use expressions like *thank you very much, sir* to show their appreciation towards instructors' kindness via the phrases of *very much* and *sir* (Etae et al., 2017). By adopting these word choices to show appreciation of kindness, it can be interpreted that a *high power distance* continues to exist in discussion forums between the two forum participants, learner and instructor. In this study, perceiving a kindness from instructors or senior learners via the above expressions in discussion forums can signal that younger

learners seem to be less anxious and more willing to interact, communicate, and collaborate with those senior persons.

Finally, *kreng jai*, which has no exact, equivalent word to describe in English, is considered “a norm for regulating social relationship” in Thailand (Pornpitakpan, 2000, p. 65). Tetiwat and Huff (2003) explained this cultural term, “an individual is expected to control his own desire or interest when in a situation that is uncomfortable or conflicting, or when in a situation where there is a need to maintain a pleasant and cooperative relationship” (p. 243). Pornpitakpan (2000) further noted that this cultural term plays an important role in influencing the Thai way of life. She defined this term in various elements as follows.

Diffidence; deference; consideration; sensitivity toward others; reluctance to impose on or interrupt others; reluctance to assert one’s comments; wants, or disagreements, especially to one’s superiors; reluctance to negotiate with or give instructions to superiors; complying with others’ explicit or implicit wishes or requests, especially if those come from superiors; concealing negative feelings, such as anxiety, resentment, and anger, to avoid making others uncomfortable or lose face; and reluctance to demand one’s own rights (a nonsmoker will patiently inhale the cigarette smoke from nearby smokers; a customer usually does not demand compensation for faulty products). (p. 65)

In a *collectivistic* online learning community, various definitions of *kreng jai* mentioned above may either increase or decrease a level of learner engagement. Instructors need to take this Thai cultural value into consideration when designing or delivering learning. For example, instructors should encourage learners to express opinions and ideas based on the topic being discussed in an appropriate manner in order not to make peers uncomfortable

or losing face when interacting and participating in a discussion (Tetiawat & Huff, 2003). From providing this opportunity, learners can improve their emotional and social engagement resulting in greater cognitive engagement. To comprehend the subtleties of Thai cultural values, it is opposite to examine Hofstede's cultural dimensions (Hofstede, 1984, 2011; Hofstede & Bond, 1984; Hofstede & Minkov, 2010) in the next section.

2.5.2 Hofstede's six cultural dimensions in understanding Thai culture

Hofstede's six cultural dimensions are power distance, uncertainty avoidance, individualism-collectivism, masculinity-femininity, time orientation, and indulgence (Hofstede, 1984, 2011; Hofstede & Bond, 1984; Hofstede & Minkov, 2010). Although Hofstede's cultural dimensions originated from a business context, they have been widely used and applied for exploring cultural aspects in the online learning context studies (Signorini et al., 2009) such as the impact of cultural dimensions on online learning (Gómez-Rey et al., 2016), the reciprocal and correlative relationship between learning culture and online education (Hamdan, 2014), and examining the moderating effect of individual-level cultural values on users' acceptance of E-learning in developing countries (Tarhini et al., 2017). Hofstede's cultural dimensions have some limitations, as they have been criticised by many scholars (e.g., Cronjé, 2011; Liu et al., 2010; McSweeney, 2002; Signorini et al., 2009). According to McSweeney (2002), for example, Hofstede's cultural dimensions tend to represent all individuals within a nation, and they were only analysed using questionnaire responses from some employees at the workplace instead of in the context of online learning. In the same vein, Cronjé (2011) pointed out that Hofstede's cultural dimensions are static

and quantitative and so not suitable for performing qualitative interpretation as the mean scores of these dimensions are not likely to represent the whole nation. In addition, Liu et al. (2010) indicated that Hofstede's model is challenged by external validity and labelled as "the *essentialist* models of culture emphasising fixity of identity over the reality of identity fluidity" (p. 178). Signorini et al. (2009) further identified a number of limitations of Hofstede's model as "an oversimplification of cultural differences, inconsistencies between his categories, lack of empirical evidence from educational settings and overall a model of culture as static (instead of dynamic)" (p. 253).

Although Hofstede's cultural model has such limitations, the six cultural dimensions allowed for an understanding of a particular culture such as Thai culture in a systematic manner. A qualitative investigation of a phenomenon (MOOC learning in Thailand) was possible when the dimensions were critically conceptualised with multiple aspects (i.e., the four learner engagement dimensions and Thai cultural aspects). In this study, the five Thai cultural values (see Section 2.5.1) were employed to make the six cultural dimensions more specific in a particular context of Thai MOOC learning. The six cultural dimensions seen as the cultural assumptions for Thai culture were further validated by understanding Thai cultural learner engagement in this qualitative study. Each cultural dimension is discussed as follows.

The first dimension is *power distance*. It refers to behavioural effects between less powerful and more powerful members in society (Hofstede, 1984) such as the learner and instructor relationship. In a collectivistic culture like Thailand, students with seniority are likely to be more powerful than juniors, as found in my previous study (Yamo, 2017). This

power distance dimension may increase young students' hesitation to engage with and contribute to online learning activities, where there are some senior students involved. This hesitation may result in a state of being behaviourally disengaged when participating in group activities such as asking questions and contributing to MOOC discussion forums (Fredricks et al., 2004). In addition, following this concept, it can be applied in an online learning environment where students with less power may feel anxious or fearful when they interact with senior students (Hofstede, 2011). This can lead them to experience emotional disengagement. On the other hand, this situation may not occur in Western contexts because Western students prefer to express ideas or ask questions during learning activities with no or less hesitation (Ardichvili et al., 2006). In order to decrease the high power distance such as seniority between instructors and learners or between senior and junior learners in Thai culture, instructors should promote diverse teaching and learning strategies like collaborative learning. When learners are centred in their learning and have an opportunity to learn and think more independently with facilitation from instructors, interaction, communication, and collaboration among these parties can be increased and lead to greater learner engagement.

The second dimension is *uncertainty avoidance*. It is the extent to which people feel uncomfortable with uncertainty and ambiguity (Dissanayake et al., 2015; Hofstede, 1984; Kang & Mastin, 2008; Venaik & Brewer, 2010). Students in collectivistic cultures with a high uncertainty avoidance such as Thailand may feel more stressed, frustrated, and anxious when dealing with new learning group members (Lim, 2004) or new learning technology (Hannon & D'Netto, 2007). This can negatively affect their learning performance, and lead students to have low cognitive engagement. In this situation, students may have less

capability to independently learn and complete tasks stemming from having low self-efficacy (Kahu & Nelson, 2018). They may also wait for the correct answers or guidance from instructors without investing enough effort in acquiring knowledge (Gómez-Rey et al., 2016). In contrast, uncertainty avoidance is likely to have less effect on students from individualistic cultures, and these students from Western contexts are likely to feel more comfortable and joyful with acquiring knowledge using technology, as students from a low uncertainty avoidance culture can freely share ideas with peers (Gómez-Rey et al., 2016). In essence, technology is considered an influential factor causing high uncertainty avoidance in most collectivistic cultures (Hannon & D'Netto, 2007). This is because the learning technology such as interface, menus, and procedures can be limitations to online learning for students from diverse cultural backgrounds. Hannon and D'Netto (2007) argued, “the pedagogical and cultural neutrality of online learning systems results in ineffective delivery of online education and reduces the attainment of good learning outcomes for culturally diverse participants” (p. 420). From this technological concern in undertaking online learning, to include a social engagement aspect in this study to see how Thai MOOC learners interact and collaborate with peers and instructors using various communication tools such as discussion forums can contribute to an understanding of learner engagement as a whole.

The third dimension is *individualism-collectivism*. It refers to a preference to deal with a loosely-knit social framework (Hofstede, 1984). Individualistic students from USA, Germany, and New Zealand, for example, prefer to be independent and work on their own projects because they tend to focus on their personal goals rather than the group goals (Ardichvili et al., 2006). On the other hand, collectivistic students from Thailand, Korea, and

Turkey, for instance, prefer to give priority to the goals of a larger group (Arpaci & Baloğlu, 2016; Cho & Lee, 2015; Phonthanukitithaworn & Sellitto, 2016). This is because the group goals usually influence the individual goals. Hofstede (1986) defined nations from collectivistic culture as “those where the group’s interest prevails over an individual’s interest” (p. 307). For example, in a collectivistic learning environment, students express fewer opinions and interests as instructors control all the teaching and learning activities, and students are dealt by instructors as part of an in-group (Signorini et al., 2009). In online learning communities, online learners from collectivistic cultures who value group cohesion may learn more effectively when they feel socially engaged by demonstrating a sense of belonging or community by having a greater interaction and collaboration with peers and instructors (Fernandes et al., 2017; Masika & Jones, 2016). In addition, they may show their positive behavioural engagement such as spending more time viewing learning resources or posting and commenting in discussion forums when they are motivated to be regularly involved in learning tasks with peers (Henrie et al., 2015; Lester, 2013; Martin & Ndoye, 2016). In this qualitative study, an integration of these cultural aspects, such as learners’ goals and interests in the interview and browsing protocols can meaningfully represent a particular group of Thai MOOC learners, and it is hoped that this integration can help solve the limitation of oversimplification stated above.

The fourth dimension is *masculinity-femininity*. It refers to preferred values (Hofstede, 1984). In masculine cultures such as Australia, U.S.A., Japan, German speaking countries, Italy, and Mexico, people value certain characteristics like being assertive, successful, achievable, and ambitious, whereas people in feminine cultures such as Thailand, Korea,

Portugal, France, and Spain value relationships, well-being, and helping each other (Hofstede, 2011). In online learning environments such as MOOCs, for example, students from a feminine culture prefer to learn in friendly and collaborative learning environments, whereas students from a masculine culture are likely to prefer to have a competitive learning environment (Gómez-Rey et al., 2016). This dimension can then be used to identify students' positive levels of behavioural, cognitive, emotional, and social engagement, in which, in a feminine culture, students who value relationships with others may perceive their social and emotional engagement when a sense of belonging to a learning community through connectivist MOOC functionalities of interaction, communication, and collaboration is stressed and offered. In this study, asking how participants value relationships in a learning community through the cMOOC functionalities in the interviews and observing how they perform these functionalities in discussion forums can help increase the external validity of the findings to be compared and to provide suggestions for future research.

The fifth dimension is *time orientation*. It refers to how people value things differently in pragmatic and normative societies (Hofstede & Minkov, 2010). People from a pragmatic society are focused on the future, value perseverance and persistence, and they demonstrate relatively higher behavioural engagement in learning and academic tasks than those from non-Western societies (Lester, 2013). On the other hand, people from a *normative society* are more focused on the present and past and thus they value current social status, and long-standing traditions and norms. It is evident that Thai culture is scored low on this dimension, so it is characterised as normative (Hofstede, 2017a). This means that Thai people are focused on more current fulfilment in their lives (Hofstede, 2017b). In online learning

contexts, students from Thailand are likely to comply with class rules and teaching and learning strategies. Students who follow these rules and rely on teacher guides seem to successfully fulfil their current expectations such as knowledge and the skills needed for their current jobs. In contrast, students from a pragmatic society perceive learning success resulting from their effort and failure from lack of effort rather than from luck, and they are likely to be willing to learn from other countries rather than being proud of their own country (Hofstede, 2011). This cultural dimension can be then used for an understanding of how and why the participants interact and communicate with peers and instructors in a particular way.

The final dimension is *indulgence*. It describes how people in societies are satisfied with life and duty with specific reference to enjoying life and having fun (Hofstede, 2011). This dimension is further defined, “the extent to which people try to control their desires and impulses” (Hofstede, 2017a, p. 1). People from indulgent cultures tend to place more importance on freedom of openly expressing opinions and giving feedback leading to a development of good relationships (Gómez-Rey et al., 2016). If they feel unhappy with group members, they are likely to leave that community. The opposite of this feeling is called *restraint*. People from restrained cultures such as Thailand tend to avoid expressing their feelings. They try to control their feelings such as happiness, satisfaction, or sadness when engaging and interacting with others. In online learning environments, those learners may lack motivation to learn when they have to interact, communicate, and collaborate with peers and instructors, resulting in a discontinuation of participating in learning communities (Gómez-Rey et al., 2016). This also means that Thai learners in MOOCs may not engage in interacting and collaborating with peers or instructors unless a clear instruction on how to

properly express their feelings is given such as a feeling of being interested in interacting and collaborating with peers can be used as a trigger to start an initial communication in discussion forums (Pellas, 2014).

From the six cultural dimensions discussed above, Thai learners were then characterised as having a high power distance, a high uncertainty avoidance, a collectivistic or a low individualistic position, a feminine or low masculine position, a normative society or a long term aspect, and a restraint tendency (Hofstede, 2017a; 2017b). Before comprehending how the five Thai cultural values and the six cultural dimensions operate within the four dimensions of learner engagement (i.e., behavioural, cognitive, emotional, and social) in the following section, the next section discusses the three existing learner engagement frameworks and their cultural considerations to articulate why this study needs the four engagement dimensions.

2.6 Learner engagement frameworks and their cultural considerations

The need to review the existing learner engagement frameworks is necessary because the multiple engagement dimensions and cultural aspects will allow an understanding of learner engagement as a whole in a MOOC learning environment. In this review, there are three learner engagement frameworks in online learning environments: *community of inquiry* (2.6.1), *refined conceptual framework of student engagement incorporating the educational interface* (2.6.2), and *interaction and cognitive engagement in connectivist learning context* (2.6.3).

2.6.1 Community of Inquiry

The Community of Inquiry (CoI) model stresses the importance of how students develop higher-order thinking through inquiry-based learning within an online learning environment (Kovanović et al., 2017). For Garrison (2011), an online learning community refers to “a group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding” (p. 2). Garrison believed that active participation in an online learning community could facilitate students to behaviourally, cognitively, emotionally, and socially engage in learning, which is also expected to result in the effective development of high-order thinking skills.

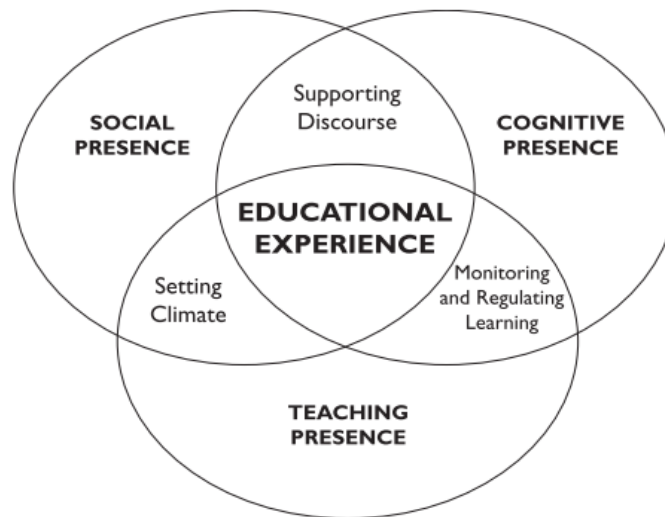


Figure 3.1: Community of inquiry (Garrison, 2011, p. 23)

As shown in Figure 3.1, to promote educational experience in the intersections of the three presences, it may be claimed that an understanding of cultural engagement is essential,

as tacit knowledge which relies on instructors' understanding of learners' cultural backgrounds and their decisions on what strategies are effective for quality learning. Inversely, as the three presences (i.e., social, cognitive, and teaching) do not directly address cultural engagement, the interpretations of the three presences could enhance cultural biases if they have no reflective or pedagogical engagement in culture. The social presence could be understood as either 'effective communication with peers and instructors' or 'interactivity, group cohesion, and affectivity as a learning community' (Kovanović et al., 2017). This presence could immediately assist students in being emotionally engaged in learning by interacting with peers and instructors in a positive manner, as well as socially engaging by improving a feeling of learning community. The cognitive presence is related to either individual students who are engaged with having a deep understanding of concepts and skills in tasks (Zepke, 2018) or groups of students actively co-constructing knowledge through extensive interactions with peers, instructors, and learning content (Kovanović et al., 2017). This implies that brainstorming to solve problems together in order to achieve the given tasks is likely to help students engage cognitively. The teaching presence is either instructors' motivation of individual students to engage in learning activities (Brophy, 1999) or their well-planned course organisation and its detailed sub-dimensions for group interactions (Kovanović et al., 2017). It could help improve students' behavioral engagement by requiring them to complete tasks assigned by instructors and encouraging them to socially interact with their peers via various communication tools. Both individualistic and collectivistic interpretations could be applicable to developing strategies for learner engagement, yet cultural engagement can play a role in determining which interpretation is more effective to a targeted learner cohort and/or hybridising them into finding a new strategy.

2.6.2 Refined conceptual framework of student engagement incorporating the educational interface

Kahu and Nelson's (2018) educational interface framework stresses the importance of sociocultural factors that influence behavioural, cognitive, and emotional engagement dimensions. The framework structures an 'educational interface' with two sections of influences, including structural influences and psychosocial influences and two sections of outcomes, including immediate outcomes and long-term outcomes. All these components are encompassed within a political and social environment. First, the educational interface consists of emotional engagement, dealing with a student's enthusiasm and interest; cognitive engagement, dealing with their deep learning and self-regulation; and behavioural engagement, dealing with time and effort, interaction, and participation. Second, the psychosocial and structural influences are the antecedents that consist of relationships between institutional and student factors, which directly influence student engagement. Third, the immediate and long-term outcomes are the consequences of learner engagement. It is assumed that students who are behaviourally, cognitively, and emotionally engaged can receive positive academic and social outcomes in their lives.

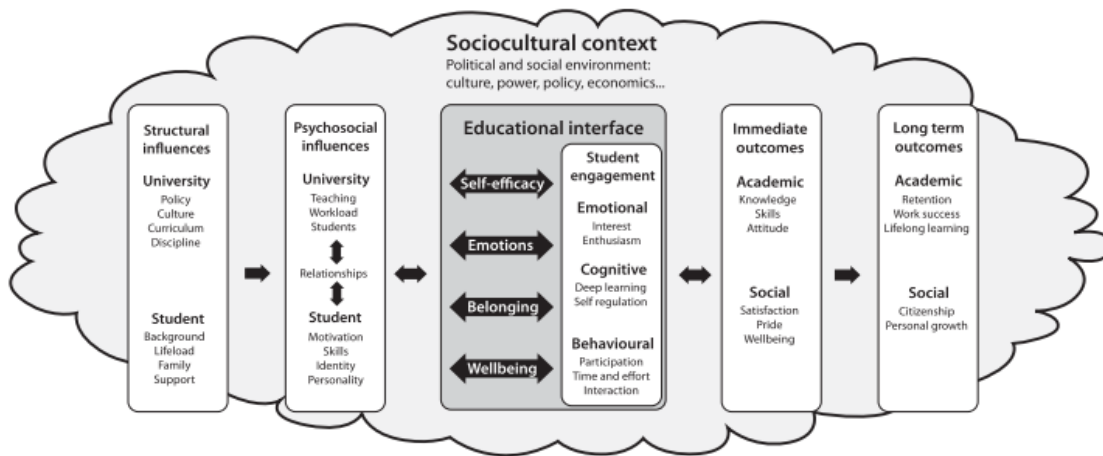


Figure 3.2: Refined conceptual framework of student engagement incorporating the educational interface (Kahu & Nelson, 2018, p. 64)

As shown in Figure 3.2, the framework indicates that learner engagement cannot occur as a result of a single factor, but it requires more complex and multifaceted factors (Kahu, 2013), and learner engagement is manifested in the interactions between the influences and the three engagement dimensions (Kahu & Nelson, 2018). In these understandings, the underlying assumption of the framework is that an educational interface of student engagement is socio-culturally contextualised, and its influences and outcomes represent a sociocultural context where culture, power, policy, and economics are interrelated (Kahu & Nelson, 2018). As ‘culture’ is considered a sociocultural factor in the framework, cultural aspects can be considered in all the components. Yet, as cultural aspects are ‘already’ filtered through the influences that are structured and interpreted by the university environments, cultural engagement remains focussed on students’ adjustment to the university requirements rather than their own cultural needs. In this process, the three components of the educational interface, emotional, cognitive, and behavioural dimensions, work for the psychosocial acceptances of educational values: self-efficacy, emotions,

belonging, and well-being (Kahu & Nelson, 2018). As a result, the framework is likely to stress the importance of academic and institutional culture that students need to adapt themselves to fit into rather than promoting students' authentic cultural needs.

In the framework, cultural engagement could be valid as an outcome of the educational interface components, and furthermore, it may not reflect students' authentic cultural needs in that the psychosocial acceptances reduce collective cultural needs to individuals' psychosocial needs. In essence, although the meaning of the term culture is highly contested, it is accepted that it has dual meaning: social culture and cognitive culture (Dreamson, 2016; Jenkins, 2012). Culture maintains a distinctive collective worldview, which is a social value system that has prescriptive and regulative power on human thought and behaviour (Dreamson, 2019). In contrast, culture also refers to how individuals understand themselves and relationships and what their positions and responsibilities are (Jenkins, 2012). This dual meaning indicates that cultural needs are not only manifested through emotional, cognitive, and behavioural phenomena — cognitive culture, but that they also work as the driver of sharing the phenomena — social culture. In this dual meaning, Kahu and Nelson's (2018) framework is focused on cognitive culture and replaces social culture with an institutional culture where (collective) cultural needs are rarely considered.

2.6.3 Interaction and cognitive engagement in connectivist learning context

Wang, Chen, and Anderson (2014) proposed a framework depicting a different cognitive engagement in a connectivist MOOC from *surface cognitive engagement* to *deeper cognitive engagement*. It illustrates a different level of cognitive engagement in how students

interact with a number of factors, such as information, technology, and peers in order to successfully construct knowledge and skills. It consists of four levels of interaction: *operation interaction*, *wayfinding interaction*, *sensemaking interaction*, and *innovation interaction*. It appears sequentially and linearly structured, which was not supposed to be included in this study. Yet, as Wang et al. (2014) claimed, if it is based on connectivism, it could be worthwhile to review it to identify how connectivism is misinterpreted to exclude the concept of cultural engagement.

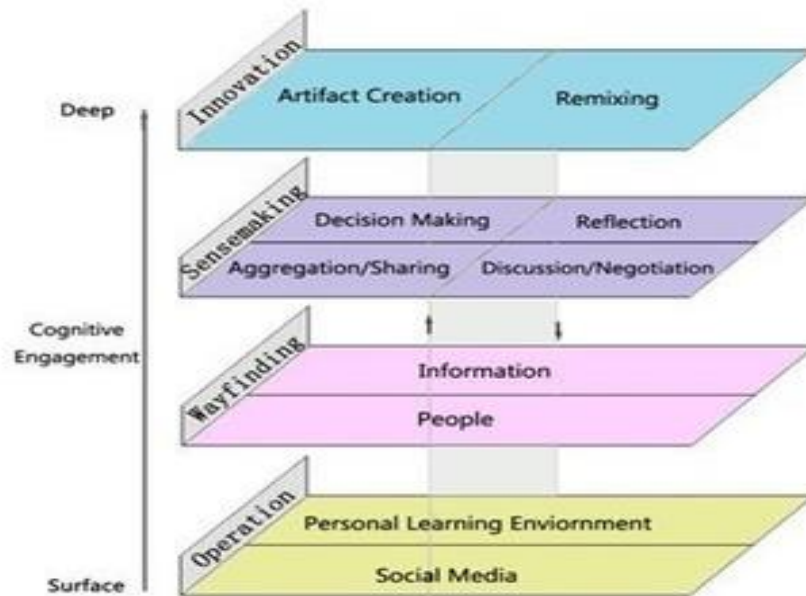


Figure 3.3: Interaction and cognitive engagement in connectivist learning contexts (Wang et al., 2014, p. 131)

At the first level of *operation interaction*, students interact with diverse technologies in order to obtain exposure to various knowledge and learning opportunities occurring in MOOCs; at the second level of *wayfinding interaction*, students critically evaluate which information is valuable and necessary; at the third level of *sensemaking interaction*, students from different backgrounds and knowledge share and make quicker decisions to select

information or learning content when they are in a network; and, at the fourth level of *innovation interaction*, students demonstrate the deepest cognitive engagement by interacting more with peers, instructors, and content in order to create a learning artefact as a final product. As Wang et al. (2014) claimed, those cognitive engagement levels are interrelated: the lower levels of interaction are the foundations of the higher levels, and each level influences and supports the next. They also claimed that learning activities occurring within these four levels of interaction not only directly contribute to cognitive engagement but also are interrelated with the other three engagement dimensions: behavioural, emotional, and social.

Although this framework claims that the four interaction levels are interrelated as the lower levels of interaction support the higher levels, and each level influences the next, the four interaction levels do not seem to fully reflect connectivism as the theory of distributed knowledge. According to the founders of connectivism, Downes (2012) and Siemens (2005), connectivist learning occurs in a networked place where learners are encouraged to co-construct knowledge via networks and interactions with peers. In this understanding, learner interaction should be circular and occur at each level. If Wang et al. (2014)'s framework is predicated upon connectivism, it can be understood that the four levels of interaction and cognitive engagement are an internal circulation, occurring with individual learners' cognitive engagement in a network. This implies that the instructor's recognition of learner culture (i.e., social culture) will only determine cultural engagement, as the four levels are focussed on individual learners' interactions with others for their cognitive changes towards knowledge construction.

Overall, the three frameworks appear to primarily focus on how to promote learners' interaction, communication, and collaboration but lack consideration of cultural inclusivity and multiple engagement dimensions to improve learner engagement, particularly for collectivistic cultures, and cultural aspects remain unspecific or undefined. To be specific, the frameworks tend to concentrate mainly on how to facilitate the engagement of learners with no distinctions between individualistic culture and collectivistic culture (community of inquiry), between cognitive culture and social culture (educational interface), and between instructors' culture and learners' culture (connectivist cognitive engagement). As a result, a framework could be selected for this study if it promoted multiple engagement dimensions such as behavioural, cognitive, emotional, and social engagement, and it had the potential for an expansion of learner engagement as a learning community, which had room for Thai cultural aspects to be embedded.

2.7 Learner engagement dimensions and their cultural considerations

Learner engagement refers to how involved students are with their learning and how connected they are with peers, classes and institutions (Axelson & Flick, 2010). Examples of learner engagement include learners who respond to questions, contribute to class discussions, and participate in extra-curricular activities (Lester, 2013); and engaged learners who come to class more often, and follow class rules and norms described as positive conduct (Fredricks et al., 2004). In this understanding, instructors aim to ensure that students from diverse cultural backgrounds are engaged with the course, interact with peers, and ultimately have a

positive learning experience. All these elements mean that instructors are also required to be active facilitators (Walji et al., 2016).

In MOOCs, learner engagement is considered a vital factor for student success and retention in higher education (Kahu & Nelson, 2018). This means that learner engagement has been taken into consideration by higher education institutions to improve the student experience and achieve better persistence, learning, and achievement (Bryson, 2016). Engaged learners are likely to continuously invest their time and efforts in learning in order to become successful learners with higher grades and superior learning performance (Kahu, 2013). In addition, engaged learners are more likely to complete the course, which also helps increase the program completion rates (Kahu, 2013). For example, first-year undergraduate students who are more engaged are likely to keep on studying in the program in the following academic year (Nelson et al., 2014). In order to promote student success and retention, institutions need to provide supportive learning environments for students to be actively engaged in learning activities (Lester, 2013).

Learner engagement is perceived in several ways. Learners are usually motivated to attend classes regularly, are happy to share ideas with peers, and actively participate in difficult learning tasks (Lester, 2013; Meyer, 2014). Students may feel more engaged with their learning when they are capable of acquiring knowledge autonomously and independently (Yoo & Huang, 2013). For example, a feeling of being capable should not only be perceived as being emotionally engaged, but could also be interpreted as being cognitively engaged. These indications mean that learner engagement is a meta-construct (Barnacle & Dall'Alba, 2017; Zepke, 2018), and thus its multi-dimensional dimensions such

as behavioural, cognitive, and emotional engagement have to be approached in a holistic manner (Fredricks et al., 2004). For example, students who are behaviourally engaged in learning usually work hard on assigned tasks, but they may not be able to learn effectively (Sinatra et al., 2015). This implies that they may not be cognitively engaged in their learning although they invest time and effort on the task at hand (Lester, 2013). Thus, a holistic approach is necessary to explore the essence of learner engagement by taking cultural engagement (i.e., Hofstede's six cultural dimensions and the five Thai cultural values) as a cultural lens to look at the four dimensions of behavioural, cognitive, emotional, and social engagement as a whole. This study is focused on the four dimensions of behavioural, cognitive, emotional, and social engagement. As the first three engagement dimensions are initially selected based on the traditional school engagement to address academic achievement, student boredom and disaffection, and high dropout rates (Fredricks et al., 2004), as well as student attitudes and motivations and collaborative learning (Redmond et al., 2018), the need to add the fourth dimension, social engagement, in this study is necessary, as it helps see how learners socially interact and engage with peers and instructors in a MOOC learning environment. In addition, cultural aspects as a cultural lens are used to observe and understand how MOOC learners behaviourally, cognitively, emotionally, and socially interact, communicate, and collaborate in this study. The four engagement dimensions in this study are then observed and understood based on the five Thai cultural dimensions (2.5.1) and the six cultural dimensions (2.5.2).

2.7.1 Behavioural engagement dimension

Behavioural engagement has been widely investigated in traditional learning environments because it is easily observable and measurable. An initial foundation work on understanding learner engagement is focused on *time on task* or *academic learning time* (Admiraal et al., 1999; Astin, 1993; Brophy, 1983; Fisher, 1981; McIntyre et al., 1983). Behavioural engagement includes time and effort invested in both social and academic activities in institutions (Radloff & Coates, 2010), and the number of hours students spent preparing and completing their assignments to obtain learning results (Astin, 1993). For example, Kuh (2001a; 2001b; 2003) revealed that students devote their time and effort to educational activities that directly affect academic achievement and institutional performance. There are also other considerations including the time and energy spent both inside and outside the classroom, as well as the extent of participation in the educational activities of the students. The importance of time on task is evident in the result from a study on learner engagement in self-paced online learning conducted by Al Mamun et al. (2016) that indicated that students dedicated their efforts to completing learning tasks that were provided with instructional guidance. The study indicates that online students will be more behaviourally engaged if they receive clear guidance and support from instructors.

Quality involvement in learning tasks, such as students asking questions and contributing to class discussions, also helps contribute to behavioural engagement (Lester, 2013). By engaging in quality involvement, students are not only behaviourally engaged in learning tasks, they achieve positive outcomes, such as increased retention (Sinatra et al.,

2015). However, in many cases, students who are behaviourally involved in learning can only achieve low-level tasks. Sinatra et al. (2015) argued that only behavioural engagement is likely to be an insufficient predictor of achievement on learning tasks and course completion because students also need to have other engagement dimensions such as the cognitive that needs higher-order processing strategies to achieve those tasks.

In online learning environments including MOOCs, due to the absence of or insufficient social interactions, quantitative indicators are considered to measure learner engagement. These are known as learning analytics in online learning. These behavioural engagement indicators include time spent viewing; time-locked eye tracking; frequency of logins to website; frequency of posts, responses and views; and, length of posts (Henrie et al., 2015; Martin & Ndoeye, 2016). These indicators are used to understand how the quality and degree of behavioural engagement constantly changes between individuals and groups (Henrie et al., 2015). On the other hand, the qualitative indicators identified by Redmond et al. (2018) include “developing academic skills, identifying opportunities and challenges, developing multidisciplinary skills, developing agency, upholding online learning norms, and supporting and encouraging peers” (p. 193).

In addition, online discussion forums provide an opportunity for learners to interact, communicate, and collaborate with peers and instructors in a MOOCs learning environment. Learners from an individualistic culture are likely to be active participants because they can express ideas, ask questions, or give feedback in discussion forums with no or little hesitation (Ardichvili et al., 2006). From this active participation, learners from an individualistic culture may feel confident and comfortable with the teaching and learning

activities provided by instructors and the friendly user interface of discussion forums provided by MOOC providers who are from the same cultural backgrounds. This then can help improve behavioural engagement. However, learners from a collectivistic culture such as Thailand may behave differently in MOOC discussion forums. Thai learners may hesitate to participate in discussion forums by neither accessing nor posting when they feel uncomfortable to interact, communicate, and collaborate with senior forum participants and instructors. This hesitation may result from dealing with the cultural dimensions of high power distance and high uncertainty avoidance (Hofstede, 2017a). Further factors that cause learners from a collectivistic culture to be reluctant to engage in MOOC discussion forums are the impact of content, diverse backgrounds, differences in tutor support, the impact of assessment, and levels of activity and achievement (Nandi et al., 2011).

2.7.2 Cognitive engagement dimension

Cognitive engagement involves students building an in-depth understanding of academic tasks to construct knowledge (Zepke, 2018). It is regarded as an internal investment of effort leading to acquiring knowledge and skills (Newmann et al., 1992). Without this engagement dimension, students may not successfully construct knowledge from difficult academic tasks that require higher order learning. Students who fail to demonstrate enough understanding on assigned academic tasks may be interpreted as being cognitively disengaged in learning by instructors (Sinatra et al., 2015). An understanding of how cognitive engagement that occurs at different levels when students have to deal with assigned academic tasks may help both students and instructors engage in effective learning and

teaching. The above indicators of cognitive engagement can be seen as “thinking critically, activating metacognition, integrating ideas, justifying decisions, developing deep discipline understandings, and distributing expertise” (Redmond et al., 2018, p. 192).

Additionally, promoting self-efficacy for students can help increase their cognitive engagement. Self-efficacy is the expectations of the students in their cognitive capacity to perform a specific academic task (Kahu & Nelson, 2018). Students who obviously show self-efficacy are likely to become cognitively engaged with successful learning, and vice versa because “high self-efficacy increases learner engagement and success and, in return, engagement and success increase self-efficacy” (Kahu & Nelson, 2018, p. 64). Vayre and Vonthron (2017) further argued that self-efficacy fosters the engagement of online students, especially when students have strong social support from instructors, peers, and family members. They noted that this social support facilitates online students to perceive higher self-efficacy in learning that leads students to improve their cognitive engagement. In other words, online students who feel socially supported by the above parties and have high self-efficacy seem to deal better with successful completion of academic tasks (Vayre & Vonthron, 2017).

Applying diverse teaching and learning strategies also helps improve students’ cognitive engagement. Research indicates that using diverse strategies is more student-centred and less teacher-centred, which is consistent with constructivist learning (Cummings et al., 2017). Smith and Ragan (1999) outlined the constructivist assumptions: “knowledge is constructed from experience; learning results from a personal interpretation of knowledge; learning is an active process in which meaning is developed on the basis of experience;

learning is collaborative with meaning negotiated from multiple perspectives” (p.5). In this sense, Cummings et al. (2007) argued that instructors are expected to actively use communication tools in online learning environments to enhance higher order thinking. This learning strategy is rooted in constructivism in that highly cognitively engaged students are likely to construct knowledge. In essence, academic rigor and relevance to the real world require learners to cognitively and deeply engage in the assigned academic tasks (Lester, 2013).

In MOOCs discussion forums, cognitive engagement is likely to be challenging to perceive as it is involved with the cultural aspects that instructors and learners from diverse cultural backgrounds bring to online environments. Casimiro (2016) argued that, “the distance factor between teachers and students in online education makes student engagement difficult to observe in this modality. This is complicated further when students come from varied cultural backgrounds, a common scenario in most online classes” (p. 441). This quote implies that cultural aspects are an influential factor in either increasing or decreasing learners’ ability to perform deeper thinking processes and construct knowledge. To improve cognitive engagement in discussion forums through interaction, communication, and collaboration, instructors should design learning tasks that take into account learners' cultural needs, allowing learners to effectively complete tasks or construct knowledge not only by sharing their own cultural aspects but also by respecting those of other cultures (Dreamson et al., 2017). Centred on the study’s findings on cognitive engagement in intercultural interactions in online discussion forums (Casimiro, 2016), there were five dimensions to improve cognitive engagement: quality of student response, learning community, nature of

discussion questions, student characteristics, and teacher facilitation. The first two dimensions are considered central to improving this engagement dimension, especially the learning community dimension that needs to be a top priority as it deals with learners from diverse cultural backgrounds.

2.7.3 Emotional engagement dimension

Emotional engagement is characterised by positive affective feelings such as interest, enjoyment, and happiness (Trowler, 2010). For example, a feeling of being interested in the learning tasks seems to be a key component of this emotional engagement. In particular, when students are emotionally interested in a learning task, they can actively participate in the course and perceive the course to be important to them (Mazer, 2017). A feeling of enjoyment is another factor that contributes to emotional engagement, and it is seen as one of the emotional prerequisites of students' participation because students who have a feeling of enjoyment are likely to participate more in a particular learning task (Curran & Standage, 2017). As a feeling of enjoyment helps increase a level of participation in learning, it is also connected to motivation in which students inspired to learn will potentially participate in learning and complete the course. In this sense, enjoyment and motivation are then interrelated, and enjoyment is seen as a source of learner intrinsic motivation (Hartnett, 2015; Li, 2015). Consequently, all these positive, affective feelings contribute to emotional engagement, and help increase long-term dispositions about learning.

On the other hand, students who have negative affective feelings can experience emotional disengagement. Examples of these negative feelings are boredom, anxiety,

sadness, and frustration (D'Mello et al., 2017; Lester, 2013). These feelings prevent students from participating in learning activities, having few or no interactions with peers and instructors, resulting in the failure to increase students' motivation to learn. For a state of boredom, possible factors are a sense of being forced, lack of interest, and lack of value (D'Mello et al., 2017). In addition, anxiety negatively influences emotional engagement by causing students an uncomfortable feeling of nervousness about their learning, such as a lack of technical access, money worries and family support, and pressures on learning (Kahu & Nelson, 2018). Consequently, students with a high level of emotional disengagement in learning tasks may indicate a superficial understanding of the assigned tasks (Craft & Capraro, 2017).

In the context of online learning environments including MOOCs, students' personal positive and negative affective feelings as discussed above can influence emotional engagement. For example, a feeling of being interested in learning can be used as a trigger to start an initial communication among students to allow for further interaction and collaboration (Pellas, 2014). This feeling can be found in communication tools such as online discussion forums where the participants initially perform a triggering phase by posting questions derived from their interest and curiosity to seek additional responses and collaboration from other participants in the later phases of exploration, integration, and resolution (Garrison, 2011). On the other hand, participants without a feeling of interest may feel emotionally disengaged from participating and interacting with other participants. Although positive and negative affective feelings may be difficult to perceive and measure in online learning environments, students are still involved with their emotions and they

relate these feelings to other learner engagement dimensions. In particular, students who are from different cultural backgrounds may demonstrate different affective feelings when communicating and interacting with peers and instructors when undertaking online courses such as MOOCs. With respect to Thai cultural values, learners may feel emotionally disengaged in communicating and interacting with peers and instructors when they feel that they do not explicitly receive mercy and kindness from peers and instructors.

Emotional engagement is one of the most crucial dimensions that meaningfully contributes to a MOOC learning environment. As massiveness is one of the four MOOC characteristics, some learners may feel isolated when undertaking MOOCs with peers who are from different cultural backgrounds (Daniels et al., 2016). To mitigate this negative feeling, instructors need to take a diversity of cultural backgrounds into consideration when designing MOOC learning activities, such as encouraging learners' sense of belonging to a learning community through the use of social media, to meet the needs of diverse learners in order to improve their emotional engagement. One possible way is to encourage learners to create their own informal discussion groups such as using social media based on their geographical locations, languages, and professional disciplines for further discussing their assignments and tasks (Nkuyubwatsi, 2014). From this encouragement, learners from the same cultural backgrounds are likely to interact, communicate, and collaborate more with peers and instructors.

2.7.4 Social engagement dimension

Collaborative learning involves social engagement. Within learning, social engagement such as reactions, comments, and shares among students allow students to work together with guidance from instructors as facilitators. Redmond et al. (2018) described collaborative learning as collaborative engagement. The indicators of collaborative engagement were identified as “learning with peers, relating to faculty members, connecting to institutional opportunities, and developing professional networks” (p. 194). In online learning environments, research indicates that instructors who promote collaborative learning with social engagement are able to provide an opportunity for students to collectively acquire new ideas and values from peers from different backgrounds (Mittelmeier et al., 2018). However, when students socially engage with peers, many may experience either social or cultural discomfort, especially for those students who are from a collectivistic and feminine cultural context who give priority to the group goals and value relationships, contrasting with other group members from a individualistic culture, who value personal goals and are assertive and ambitious (Hofstede, 2011; 2017b). In order to avoid experiencing this discomfort, collaborative learning then needs to be designed and promoted by reflecting their cultural needs such as providing a wide range of flexible teaching and learning activities (Gómez-Rey et al., 2016). This is known as culturally-inclusive learning, which facilitates learners who have culturally and linguistically diverse backgrounds (CLDB) to be successful in learning (Dreamson et al., 2017).

Social engagement also involves a sense of belonging to learning communities in higher education. Specific to collaborative learning, a feeling of belonging to a learning community could lead students to socially engage with peers and instructors, and deeply engage in learning. Masika and Jones (2016) defined a sense of belonging as “students’ sense of being accepted, valued, included and encouraged by teachers and peers, and feeling that they are an important part of the life and activity of the classroom” (p. 138). Technically, according to Kahu and Nelson (2018), when instructors are friendly and easy to approach, students are more likely to have an increased sense of belonging through social interaction. A critical aspect is that peers are viewed as a source of a sense of belonging. Fernandes et al. (2017) argued that students who actively interact with peers can obtain a sense of belonging, which significantly contributes to learner engagement. In relation to a sense of belonging, Redmond et al., (2018) defined social engagement as “building community, developing relationships, and establishing trust” (p. 191).

A sense of belonging is also defined as students’ connectedness to an institution because this feeling can occur when students perceive how much they fit in with the institution, leading them to have greater engagement with their learning (Kahu & Nelson, 2018). As such, non-traditional online students appear to have lower levels of a sense of belonging than traditional on-campus students (Fernandes et al., 2017). This is because in online learning environments, students have fewer opportunities to connect and interact with peers, instructors, and institutions compared to a traditional face-to-face classroom (Farrel et al., 2018). Furthermore, adult learners who have busy lives with family and work responsibilities are less likely to develop a sense of belonging to the institution (Kahu &

Nelson, 2018). Cultural tensions among learners who have CLDB may also contribute to a feeling of social disengagement, unless the tensions are considered in the learning design of the course (Mittelmeier et al., 2018). Specific to the five Thai cultural values, when Thai learners feel hesitant to communicate and interact with instructors and senior peers, this may lead them to feel socially disengaged.

In summary, a review of the four dimensions of behavioural, cognitive, emotional, and social engagement that contribute to learner engagement provides a practical understanding of how cultural aspects play a significant role in helping observe and understand the above four engagement dimensions. The first dimension of behavioural engagement in the context of online learning environments such as MOOCs is challenging to measure, as it requires understanding of how students get involved in learning tasks. Discussion forums are then considered a second source of data to investigate behavioural engagement in this study, and includes using the frequency of posting questions, commenting to other participants' responses, voting for other participants, and following particular posts. The second dimension of cognitive engagement refers to students' capabilities, such as self-efficacy, to build an in-depth understanding of academic tasks to construct knowledge. However, students from Thai backgrounds may experience a state of cognitive disengagement when they fail to successfully co-construct knowledge. In this study, data collected from the interviews and discussion forums is used to obtain rich information to analyse the cognitive engagement dimension. The third dimension of positive and negative affective feelings as a crucial component of emotional engagement also appears to be difficult to perceive. Positive feelings such as interest and joy, and negative feelings such as anxiety

and frustration expressed by students can directly and indirectly affect other engagement dimensions and the degree of learner engagement as a whole. These feelings will be mainly used as the indicators to see how students are emotionally engaged and disengaged in discussion forums in this study. Finally, collaborative learning assists students in improving social engagement because it allows students to collaboratively acquire new ideas and values interactions with peers through having a sense of belonging to a learning community. Using cultural aspects to articulate Thai learners' cultural needs towards the four engagement dimensions were then necessary in this study, as they were interrelated and helped learners connect with peers and instructors and get involved with their MOOCs learning.

2.8 A Thai cultural learner engagement framework in a Thai MOOCs environment

This section illustrates a learner engagement framework as shown in Figure 2.3. The framework facilitated an understanding of learner engagement in a collectivistic cultural MOOCs environment. It worked as a guideline in conducting this study by helping identify the association among the components, choosing suitable research methodologies and data collection and analysis methods, and directing future study in relevant areas. This was the role of a conceptual framework built from the literature review and used to guide the methodology (Imenda, 2014).

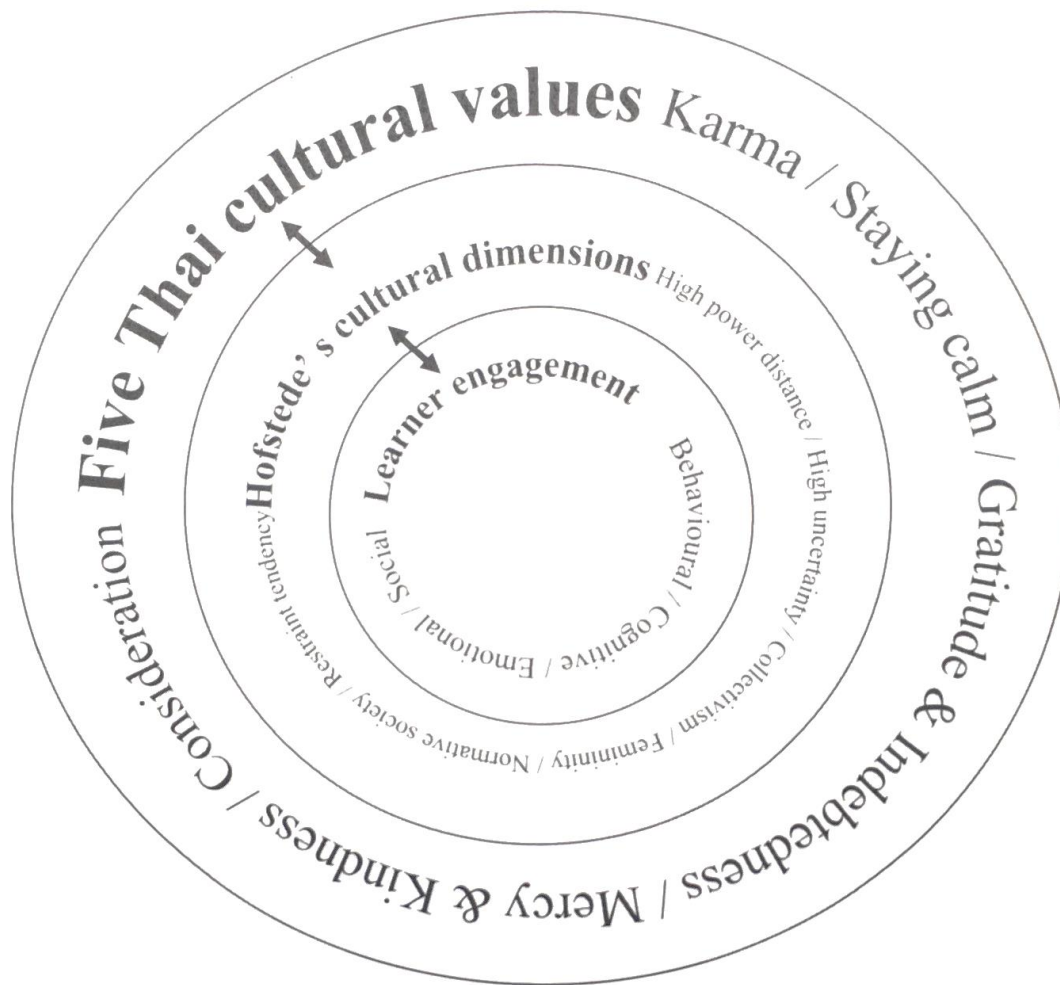


Figure 2.3: A Thai cultural learner engagement framework in a MOOCs environment

As the four learner engagement dimensions were used to represent learner engagement as a whole in this study by examining how Thai learners engage with peers and instructors in Thai MOOC courses, the need to include Thai cultural aspects to understand authentic learner engagement was then necessary. The two cultural concepts that were employed in this study were the five Thai cultural values (i.e., karma, staying calm, gratitude and indebtedness, being merciful and kind, and consideration) and Hofstede’s six cultural dimensions of Thailand (i.e., high power distance, high uncertainty avoidance, collectivism,

femininity, normative society, and a restraint tendency). The two sets of Thai cultural aspects were then used to support an understanding of how Thai learners are behaviourally, cognitively, emotionally, and socially engaged. For example, how Thai younger learners with less power behaviourally and socially engage with senior learners or instructors with more authority in regard to Thai Buddhist culture, which teaches them to consider the various positions in society. Or how Thai cultural values like consideration affect Thai learners' emotional and social engagement, leading to cognitive disengagement. The components interrelate with one another, and the interrelationships between them were then used to maximise an understanding of Thai cultural learner engagement in a MOOCs context.

2.9 Chapter summary

This chapter has reviewed the four learner engagement dimensions in the specific collectivistic cultural context of Thailand. It also examined the five Thai cultural values and Hofstede's six cultural dimensions in order to characterise Thai students' engagement and the instructors' intentions in engaging students. A Thai cultural learner engagement framework in a Thai MOOCs learning environment was suggested to provide an understanding of how the four engagement dimensions were influenced by the five Thai cultural values and Hofstede's six cultural dimensions for Thailand.

CHAPTER 3: THEORETICAL FRAMEWORK

3.1 Introduction

The previous chapter reviewed the literature on cultural considerations of learner engagement by emphasising the significance of cultural engagement and how to incorporate cultural aspects into the learning environment of MOOCs. This review established the basis for investigating the four dimensions of learner engagement in the specific collectivistic cultural context of Thailand. Chapter Two reviewed Hofstede's six cultural dimensions (i.e., high power distance, high uncertainty avoidance, collectivism, femininity, normative society, and a restraint tendency) in order to characterise Thai students' engagement and the instructors' intentions in engaging their students. The five Thai cultural values (i.e., karma, staying calm, gratitude and indebtedness, mercy and kindness, and consideration) were also reviewed as they seem to be consistent with and help in understanding Hofstede's six cultural dimensions for Thai culture.

This chapter discusses the theoretical framework by first reviewing connectivism as a theoretical lens to understand the four dimensions of learner engagement in this study (3.2). This is then followed by limitations of connectivism (3.3) and the three connectivist functionalities (3.4): interaction (3.4.1), communication (3.4.2), and collaboration (3.4.3). Although xMOOC courses were used in this study, a connectivist MOOC's key functionalities were necessary as a theoretical lens to explore how the Thai participants interact, communicate, and collaborate with others.

3.2 Connectivism

This study employed connectivism as a theoretical lens to observe and understand learner engagement dimensions in Thai culture as connectivism allows learners to demonstrate their social and cultural roles in a networked place to co-construct knowledge via networks and interactions with peers (Downes, 2012). In this pedagogical understanding, instructors will act as attentive, creative, and responsive course facilitators to help individual learners socially and culturally interact, communicate, and collaborate with information made available in the networks, and then share it with peers (Downes, 2012). The authentic and educational features, limitations, and pedagogical implications of connectivism are then critically reviewed.

Connectivism is known as a theory of learning for the digital age (Downes, 2012; Siemens, 2005). According to Downes (2012), “Connectivism is the thesis that knowledge is distributed across a network of connections, and that learning consists of the ability to construct and traverse those networks. An account of connectivism is therefore necessarily preceded by an account of networks” (p. 9). In a connectivist MOOC, learners are required to be autonomous with encouragement from instructors to actively participate in nodes (e.g., learning communities) of the networked learning environment, and interact and collaborate with peers to co-create knowledge (Conole, 2016; Peters, 2016) using various synchronous (e.g., conferencing, program and web based chat, and chat applications) and asynchronous (e.g., bulletin boards, discussion forums, emails, and social media) communication tools

(Ganesan et al., 2002). Such a practical understanding relies on the following eight principles that Siemens (2005) outlined as follows.

Learning and knowledge operates in different views. Learners who have different perspectives and experiences need to exchange knowledge and information with others and co-construct it. Learning can occur when learners who share the same common interests with peers at the correct time can relate information.

Learning is a process of linking nodes or sources of information. To effectively co-construct knowledge and understanding with others, learners need to accumulate a variety of information made accessible in a network from various sources and learning communities. Finding and linking information is an essential task for learners.

Learning can reside in non-human devices. It could be interpreted that learners would not acquire information that is available in a network until they reach that network. Learners need to join the network as a platform where they can find information and co-construct knowledge with others.

Desire to know is more important than what is understood. As a network can offer massive data to learners, learners can gain a greater understanding and insight into what they have already learned. An intrinsic learning motivation is necessary for learners to enhance their established knowledge and understanding.

Connections need to be nurtured and preserved to promote continuous learning. Building and sustaining relationships with others is a key to co-constructing knowledge and

understanding for learners. To learn more, learners will need to engage and participate in various networks or learning communities.

The ability to make relations between fields, ideas, and concepts is a key skill. As knowledge and information exist in a network, before sharing and co-constructing understanding with others, learners are required to connect knowledge from various ideas and concepts to develop their own understanding. To co-construct knowledge, learners need to consider where, how, and with whom.

Primary aim of all connectivist learning activities is accurate, up-to-date knowledge. To get the latest and correct information made accessible on a network, learners are required to co-construct knowledge in a thorough manner. Learners need to demonstrate their ability to differentiate between important and unimportant information.

Decision making is fundamentally a learning process. Learners are able to successfully co-construct knowledge based on their learning abilities and decision-making. For learners to deal with the huge amount of information in a network, critical and innovative thinking strategies are needed.

In connectivism, learners are required to co-construct knowledge with peers by connecting to different nodes when undertaking connectivist MOOC courses. In the networked learning environment, conceptually, learning occurs through connecting to different nodes in an information network (Siemens, 2005); so, how to maintain and strengthen connections between nodes becomes crucial for learners and instructors. In an information network, nodes emerge from a connecting point that can be connected to another

node (Goldie, 2016). Nodes can be in digital form or formless, such as organisations, information, websites, feelings, social media, journals, and images (Goldie, 2016). In practice, learning occurs when learners are able to see the meaningful connections of information sources between nodes. For Siemens (2005), a node is a learning community, and it is assumed that the more learners interact, communicate, and collaborate with peers in learning communities, the deeper the learning that occurs. In this sense, diverse opinions under a connectivist approach from learners are important, and the need to encourage each learners to value interaction, communication, and collaboration when participating in a learning community is a priority task.

From the perspective of connectivism, knowledge is distributed through the networked environment. Downes (2007) asserted that “knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks” (para 2). In a MOOC learning, Downes (2012) further argued:

When you learn as a network, you cannot teach one fact after another. Each fact is implicated with the others. You cannot see a single fact, even if you extract a fact from the data, because it would be only one abstraction, an idealisation, and not more true than the identification of regularities in the data - and learning becomes more like a process to create landforms, and less like an exercise of memory. (p. 30)

From this view, learning in the digital age is not knowledge transmission that is performed by one teacher to many students in a conventional classroom environment, but learning is a process of knowledge co-construction when learners connect to the different learning communities of a network to aggregate information made available in the networks

(as knowledge is distributed) and then create and share knowledge with peers (Downes, 2012; Siemens, 2005).

3.3 Limitations of connectivism

Connectivism has been questioned by numerous researchers on the grounds that it does not demonstrate a teaching process compared to traditional learning theories such as behaviourism, cognitivism, and constructivism (e.g., Bell, 2011; Kop & Hill, 2008; Lange, 2012; Verhagen, 2006). Lange (2012) and Kop and Hill (2008) critiqued that connectivism is not revolutionary and offers just a synthesis of ideas already found in other well-established theories of learning such as constructivism. Mattar (2018) argued that, “connectivism should not be considered a new theory of learning, it is possible to position it as the development of constructivism to the current scenario of the use of technology in education, functioning though as a philosophy of education” (p. 3). In the same vein, Verhagen (2006) perceived connectivism as a pedagogical view. He exemplified: “pupils from an early age need to create connections with the world beyond the school in order to develop the networking skills that will allow them to manage their knowledge effectively and efficiently in the information society” (p. 1), whereas Bell (2011) suggested that connectivism is just a phenomenon, as evident in the CCK08 MOOC, that comprises book articles, blog posts, and an extensive network of people and materials. It is questionable as to whether “connectivism could be understood and practiced from different conceptualisations and pedagogies” (Clarà & Barberà, 2013, p. 134). In addition, examples of criticisms of connectivism based on established theories of learning seem to focus on individual learners, the lack of explanation

for learning that may exist in non-human devices, and the lack of links between the basic concepts of connectivism and the premises and theories on which it is based (Goldie, 2016).

The above critiques, however, are likely to argue about whether connectivism is a learning theory or not, rather than its pedagogical implications (e.g., does connectivism explain learner engagement in a networked learning environment more effectively than other pedagogical and learning theories?). However, as a learning theory that explains how technology and connection-making occurs, connectivism provides an insight into how learners recognise the layers of meaning that exist in digital modes. The focus was placed on using connectivism as a theoretical lens to gain a better understanding of learners' interaction, communication, and collaboration in the Thai culture within Thai MOOC courses.

In the network learning environment or cMOOCs, human-to-human interaction is the primary concern, by connecting and re-connecting to different nodes or learning communities using various synchronous or asynchronous communication tools to co-construct knowledge (Ganesan et al., 2002; Peters, 2016; Siemens, 2005). Collaboration among learners is also necessary for knowledge co-construction in an information network, as knowledge is distributed through a network of connections (Downes, 2007); and, a successful knowledge co-construction can be achieved through interaction and communication through various collaborative models that are developed and designed by embedding cultural aspects (Dreamson, 2018). In such ways, interaction, communication, and collaboration are the key functionalities of authentic MOOCs learning, and these three components are the pedagogical concepts of connectivism.

In a connectivist learning environment, the focus is highlighted on the distribution of knowledge across an information network through human and non-human resources and the roles of technologies that facilitate learners' knowledge construction (Kizito, 2016). With specific reference to the distribution of knowledge through human-human interactions, cultural inclusivity should be taken into consideration when developing and designing MOOC courses, especially how to promote culturally inclusive learning to improve learners' interaction and collaboration using effective communication tools. Yoon (2018) studied the experiences of instructors who were from Korea, Mexico, and Vietnam, in using an asynchronous communication tool called ThreadVoice¹ to brainstorm more ideas about objectives and activities for their culturally inclusive lessons. Yoon argued that instructors need to be aware of other cultures, expand their world views, and understand the CLDB learners' needs. She further suggested that combining asynchronous and synchronous tools in helping one another for better interaction and communication among learners will help improve communication among diverse populations. In his study on learner engagement, Johnson (2018) argued that instructors are required to understand the needs of international students who are from CLDB backgrounds including language acquisition theories, and learner-centred teaching environments. By taking the CLDB learners' needs into consideration, instructors can improve their behavioural, cognitive, emotional, and social development leading to the promotion of learner engagement for all participants (Johnson, 2018). From the above claims, the need to include cultural engagement (as discussed in

¹ A collaborative, multimedia slide show that holds images, documents, and videos and allows people to navigate slides and leave comments through using voice with a mic or telephone, text, audio file, or video via a webcam.

Sections 2.5 and 2.7) as a cultural lens is clearly required to observe and understand how the participants perceive and experience behavioural, cognitive, emotional, and social engagement within Thai MOOCs in a more connectivist way in this study.

It needs to be acknowledged that connectivism tends to focus more on individual learners' participation accessing different learning communities in the network to co-construct and share knowledge with others (Kop & Hill, 2008). To integrate cultural aspects in MOOCs, the pedagogical concepts need to be assessed and re-conceptualised based on research in different cultural contexts of MOOCs (i.e., Thai MOOCs and learners). To do so, as the literature on learner engagement mainly focuses on social roles, a detailed investigation on how learners from a collectivistic culture interact, communicate, and collaborate with peers in a MOOCs learning environment is necessary. That is, cultural aspects that contribute to learner engagement in line with the three connectivist MOOCs concepts (i.e., communication, interaction, and collaboration) are considered to play a significant role in observing and understanding how Thai learners behaviourally, cognitively, emotionally, and socially engage in MOOCs learning communities. Although connectivism has some limitations as stated above, its three key functionalities remain significant to be adopted in this study. The key connectivist functionalities are discussed in the following sub-sections.

3.4 Key functionalities of connectivism

According to Conole (2016), based on his twelve MOOC design criteria², the criteria of degree of communication and degree of collaboration are seen as important factors to promote online interaction, participation, and collaboration. The degree of communication may refer to an opportunity for learners to discuss learning topics via discussion forums or other communication tools, such as blogs and social media (Glass et al., 2016). The degree of collaboration may refer to the extent to which learners collaboratively work with peers and instructors. It can be inferred from this view that quality online interaction and collaboration through multiple communication tools are determinants of quality connectivist MOOC learning (Glass et al., 2016).

The next section discusses how the three functionalities of connectivism play an important role in shaping the four dimensions of learner engagement in this study.

3.4.1 Interaction

Interpersonal interactions between learners, which Moore (1989) defined as one of three types of interaction (i.e., learner-content, learner-instructor, and learner-learner), can help enhance the four dimensions of learner engagement in a MOOCs learning environment. For behavioural engagement, collective interaction through group cohesion such as group projects and assignments allows learners to spend time and effort to complete the group

² 1) Open, 2) Massive, 3) Use of multimedia, 4) Degree communication, 5) Degree collaboration, 6) Learning pathway, 7) Quality assurance, 8) Amount of reflection, 9) Certification, 10) Formal learning, 11) Autonomy, and 12) Diversity

learning tasks (Fernandes et al., 2017). Interactions with peers in the learning community in which learners work collaboratively to complete given tasks in a small group setting to complete the group tasks have a positive impact on learners being engaged cognitively (Casimiro, 2016). Positive emotions, such as interest in learning, may be used as a trigger for initial engagement between learners to enable more interaction (Pellas, 2014). In the dimension of social engagement, social interactions are seen as a key factor in a growing sense of belonging to the learning community (Kahu & Nelson, 2018).

In online learning environments such as MOOCs, the theory of connectivism provides learners with an opportunity not only to interact with other learners, but also with non-human nodes. It is consistent with the statement put forwards by Mattar (2018) that “cognition and learning are distributed not only among people, but also among artefacts, as we can offload some cognitive work to devices that are more efficient at performing tasks than humans” (p. 210). This implies that learner engagement, in particular cognitive engagement, could be increased through the acquisition of knowledge independently by learners or by teaching strategies offered by instructors in a distributed network. According to Wang et al. (2014), students interact with a variety of variables such as information to construct knowledge and skills across the four levels of interaction as outlined in Section 2.6.3. Specifically, in the second level of *wayfinding interaction*, students can construct knowledge and understand through information made available in the network, which is critical and important for them. This helps confirm that interaction between learner-learner and learner-artefact is essential for learners and should be prioritised in MOOC development and design.

Downes (2020) stated the importance of interactivity when undertaking MOOCs as follows.

Interactivity has meanwhile been increasingly viewed not only as an effective pedagogical strategy but also as a means of creating and growing new learning. Researchers depict connectivism not merely as a means of knowledge transmission but as a means of solving problems and accomplishing tasks. (p. 119)

When learners are autonomous to acquire knowledge and skills by interacting with others or a number of elements of information in the network, interactivity is linked to and derives from the word interaction as mentioned in the above quote. Although the quote appears to address cognitive engagement, learners are expected to demonstrate other engagement dimensions such as behavioural and social engagement to successfully complete the given tasks. Learners may work together to exchange ideas and opinions or share experiences about how and where to access relevant information through group tasks and a sense of belonging to a learning community (Fernandes et al., 2017; Kahu & Nelson, 2018). Overall, interaction is a key element needed for this study, as it not only improves the four engagement dimensions, but also helps learners co-construct knowledge and skills with others.

3.4.2 Communication

Communication is considered to be a starting point for conversation that helps learners to engage with peers in a behavioural, cognitive, emotional, and social manner. It is believed that setting up a group chat and a private chat in social media communities would increase the behavioural participation of learners, as this communication tool can help

learners connect and engage more in group learning (Nkuyubwatsi, 2014). Learners can cognitively engage in the co-construction of knowledge by supporting each other through various communication tools such as social media (Mai & Poppe, 2016). For emotional engagement, posting questions based on feelings of interest and the curiosity of learners on communication channels such as discussion forums will help learners initially conduct a triggering phase to seek additional answers and peer interaction (Garrison, 2011). For social engagement, using various one-to-one, one-to-many, and many-to-many communication channels can allow more social interactions between learners (Dreamson et al., 2018).

One of the main components of online education, like MOOCs, is communication between learner-learner and learner-instructor. Courses that do not provide effective communication for learners may not help them maximise learning experiences. Reese (2015) argued that “communication and dialogue between students and instructors is missing from distance education, and for this reason higher education administrators should consider a paradigm shift to more participatory and active online educational systems” (p. 39). This implies that instructors should allow learners to communicate with each other through various other communication tools during undertaking courses to help learners co-construct knowledge and understanding. As further argued by Reese (2015), “a balanced online environment should provide a blend of both asynchronous and synchronous opportunities, which promote communication and collaboration among classmates and instructors” (p. 35). It is consistent with the argument put forwards by McLoughlin and Lee (2008) that “teaching and learning strategies can enable greater engagement of learners in shaping the education

they receive through participatory choice, personal voice, and ultimately, ‘co-production’” (p. 10).

In a MOOCs learning environment, different communication methods do not only help learners communicate with each other but also help them engage in more interaction to complete group tasks. According to Jiménez-González et al. (2018) “a wide range of interactive and media tools are available to students to enable them to interact with other learners. For example, video lectures, online discussion boards, blogs, wikis and social networks such as Twitter and Facebook” (p. 211). Specifically, with reference to the discussion forums offered by courses and social media communities as an alternative out-of-course communication tool, learners tend to have more opportunities for social participation with peers to work together on challenging tasks. It is consistent with an argument put forward by Nkyyubwatsi (2014) that the social involvement of learners is facilitated if they set up their own informal discussion groups, such as using social media to further address their assignments on the basis of their needs and interests.

3.4.3 Collaboration

Collaboration occurs in the learning community when a group of learners work together. Discussing ideas between small group members and brainstorming ideas together can help improve the behavioural involvement and participation of learners. Learners who appear to be part of group learning may engage socially with peers in the co-construction of knowledge through collaborative learning. Positive feelings such as a feeling of enjoyment can lead to emotional engagement and are seen as emotional prerequisites for the interest of

learners in learning to collaborate more (Curran & Standage, 2017). For social engagement, learners who are provided with collaborative learning opportunities via social interaction can collectively receive new ideas and values from peers (Mittelmeier et al., 2018).

Collaborative online learning can be promoted through various human and non-human nodes. In line with connectivism, instructors need to provide learners with different learning activities through various teaching strategies that enable them to collaboratively work with peers through the use of nodes to co-construct knowledge. Nodes or collaborative tools for connectivist learning are described below by Alzain (2019).

According to Connectivism Theory, learning is networks of connections among human (learners, teachers and experts) and non-human (sources of information, books, databases, web, blogs, wiki and chat) nodes. Ideas, emotions, data and new information are also considered nodes, given that connections can take several forms such as interaction between a group of learners, student addition of some comments or student reading of the course content. (p. 47)

From the human and non-human nodes listed above, the learner-centred approach is central to the co-construction of knowledge. It is because, with instructor guidance, learners are autonomous through collaborative learning to aggregate, create, and share knowledge with others (Jahani Yalmeh et al., 2020; Mai & Poppe, 2016; Siemens, 2005). It is consistent with McLoughlin's (2002) argument that support for learners through collaborative learning can help improve the competency and confidence of learners in learning. She said that "as learners utilise the World Wide Web for collaborative learning, support systems contribute to the processes of learning and assist the learner in developing competencies and confidence in self-regulated learning and social interaction" (p. 149). This implies that learners can

collaboratively work with peers across certain nodes on the basis of their needs and preferences to establish shared understanding with peers about the given tasks. For example, social media communities such as Facebook are considered to be one of the most effective collaborative tools in the digital age that enable learners to effectively participate in online learning, like MOOCs (Alzain, 2019; Smidt et al., 2017).

From the discussion above, the following figure is suggested to provide an understanding of how connectivism theory was used as an analytical lens to examine learner engagement. Specifically, the four dimensions of learner engagement (i.e., behavioural, cognitive, emotional, and social) were shaped by the three functionalities of connectivism (i.e., interaction, communication, and collaboration).

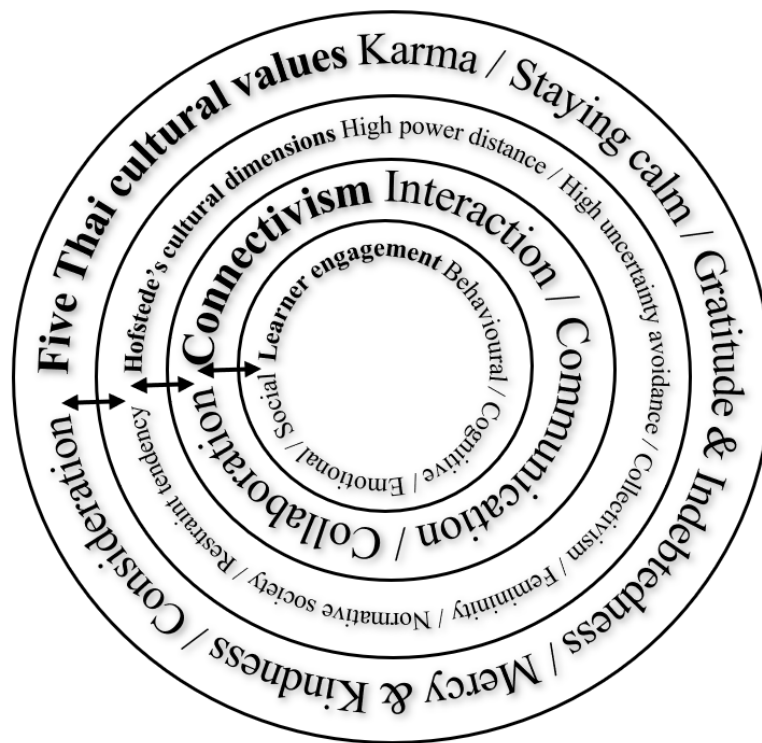


Figure 2.4: Theoretical framework of connectivism

3.5 Chapter summary

This chapter outlined a theoretical framework for the effective data analysis of the four dimensions of learner engagement. A theoretical framework of connectivism is seen as a result of how the four engagement dimensions are shaped by the three functionalities of connectivism to help maximise an understanding of Thai cultural learner engagement in a MOOCs learning context. Connectivism is then considered an empirical lens to examine how and in what manner Thai learners and Thai instructors practise their cultural values in their engagement and in their management of MOOCs as set out in the Analysis and Findings chapter. The next chapter addresses the research methodology.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This chapter focuses on the methodology and research design of this qualitative study as presented in Figure 4.1 below. The chapter first begins with a research methodology section discussing qualitative research and interpretivism (4.2). Then, it presents a research site (4.3) and research participants (4.4). Next, it discusses how to collect data (4.5) and analyse data (4.6). Finally, it describes trustworthiness (4.7) and ethical considerations for this study (4.8).

The research methodology and research design were selected to answer the following research questions.

Central research question:

How and in what manner do Thai learners and instructors practise their cultural values in their engagement and in management of MOOCs?

Research sub questions:

- 1) How do Thai learners perceive their engagement dimensions within MOOCs, and how do they reflect Thai cultural aspects in their learning?
- 2) How do Thai instructors determine learner engagement dimensions within MOOCs, and how do they embed Thai cultural aspects in their teaching practices?
- 3) How are the learner engagement dimensions enacted in MOOCs interaction, communication, and collaboration?

4.2 Research methodology

This study employed a qualitative research approach using interpretivism as a research methodology to understand learner engagement in a MOOCs learning context within a Thai collectivistic culture as illustrated in the following figure. As learner engagement is constituted and directly experienced by learners and instructors, I collected qualitative data from these participants, which means that the qualitative research methodology was found to be the most effective approach for the study (Silverman, 2013). In essence, the qualitative research approach enabled me to gain access to research participants and conduct in-depth research using various qualitative data collection strategies, such as interviews and observations (Creswell, 2003; Silverman, 2013). In other words, the nature of the qualitative research area enables researchers to collect information in natural environments as well as interpreting data for the purpose of answering research questions (Denzin & Lincoln, 1994). In particular, the qualitative approach is to facilitate an understanding of *how* questions as illustrated in this study and to analyse and interpret collected data for the specific learner engagement dimensions.

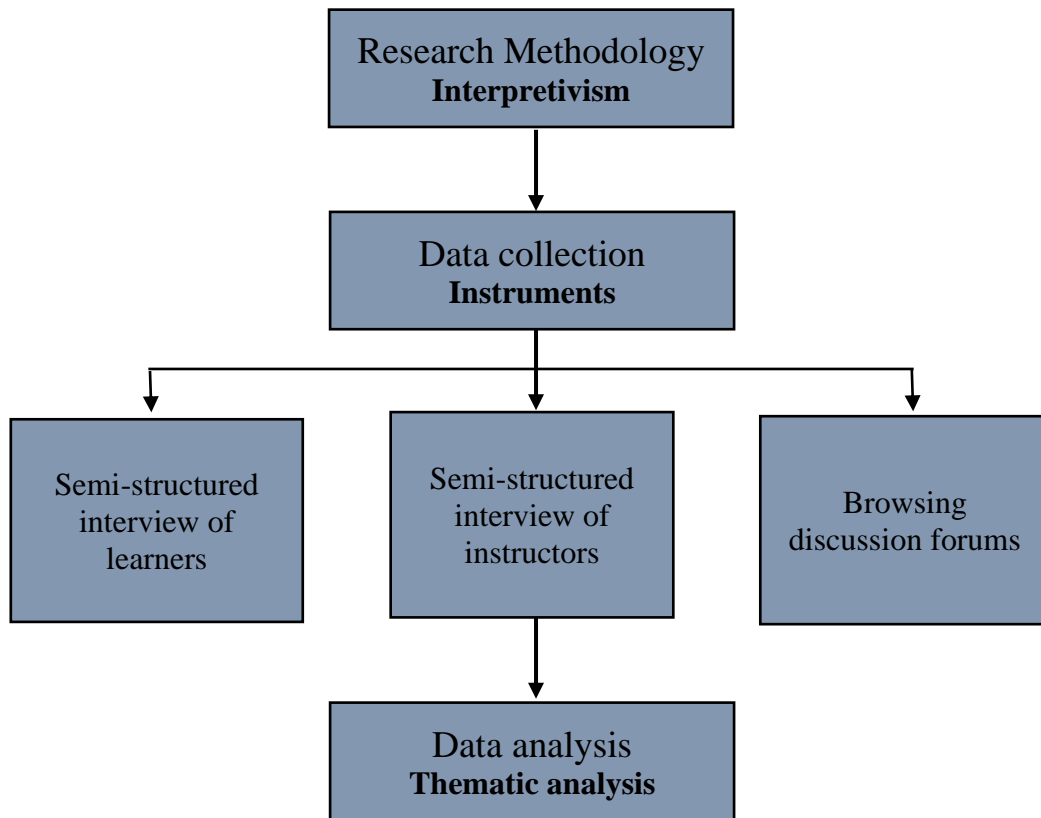


Figure 4.1: Research design

The natural setting of this study was a cultural sense of learner engagement. As learner engagement was formed with the four dimensions of behavioural, cognitive, emotional, and social engagement, a cultural interpretation of data gathered from both learners and instructors within the above engagement dimensions was performed. A cultural interpretation of the connectivist MOOC’s functionalities of interaction, communication, and collaboration among learners and instructors who were from diverse cultural backgrounds can contribute to an understanding of how they were engaged within their learning. This is consistent with interpretivism, which maintains that the world (i.e., behavioural, cognitive, emotional, and social engagement) is viewed through the eyes of multiple learners and instructors. and instructors (May & Williams, 2002). Cultural engagement is used as a

cultural lens to observe and understand the four dimensions of learner engagement (Crotty, 1998).

Pulla and Carter (2018) defined interpretivism below:

Interpretivism is a research paradigm that is associated with qualitative research. The interpretivist view invites the researcher to investigate meaning behind the understanding of human behaviour, interactions and society. This involves the researcher attempting to develop an in-depth subjective understanding of people's lives. The difference between the natural sciences and social sciences is that the natural sciences requires the researcher to observe and interpret natural processes but the social sciences requires the researcher to observe a phenomenon and understand the interpretations that individuals have already made. (p. 9)

Based on what is defined as interpretivism above, this study used interpretivist principles to provide an in-depth, subjective interpretation of the perceptions and experiences of MOOC learners and instructors on the four dimensions of engagement in this study. It helped confirm that interpretivism could contribute to educational research, as “it significantly facilitates educational researchers when they need ‘in-depth’ and ‘insight’ information from population rather than numbers by statistics” (Thanh & Thanh, 2015, p. 25).

Interpretivism is a methodology that allows me to construct and interpret my understanding in a socially constructed context (Willis et al., 2007). In this study, the truths refer to the four learner engagement dimensions, and the particular context refers to a MOOCs learning context within Thai collectivistic culture. In essence, I was able to examine the social reality of the perceptions and experiences of MOOCs learners and instructors

through interpretation using a cultural lens, which then allowed me to use those perceptions and experiences to construct and interpret my understanding of the four learner engagement dimensions from collected data. In other words, interpretivism facilitated me to discover the four dimensions by interpreting the understanding of individual learners and instructors. Willis et al. (2007) claimed that multiple experiences of various members of the groups are accepted by interpretivists rather than accepting only one correct answer like positivism. Smith (1993) further argued that “there is no particular right or correct path to knowledge, no special method that automatically leads to intellectual progress” (p. 120). From the above claims, interpretivism is then different from positivism, as the positivist philosophy is determined by cause and effect and relies on objective rather than subjective interpretation (Creswell, 2003), whereas reality from interpretivism is constructed through “the world of human experience” (Cohen & Manion, 1994, p. 36). In this understanding, interpretivism prefers humanistic qualitative methods, whereas positivism prefers scientific quantitative methods. As this study used the two qualitative methods of interviews and browsing of the discussion forums to collect data from Thai MOOCs learners and instructors, interpretivism was then employed to construct and interpret my understanding of the four dimensions of learner engagement through examining the subjective perceptions and experiences of the participants.

There are two key actors of interpretivism. The participants first understand the world (learner engagement dimensions) based on their perceptions and experiences, and then I, as the researcher, interpret the participants’ perceptions and experiences of learner engagement by analysing and presenting the findings through my thesis to the readers (Creswell, 2003).

The assumption was that data provided by the participants responding to the interview questions and in the discussion forums contain cultural information, so I could interpret this information by comparing it with the four dimensions of learner engagement using the cultural and theoretical frameworks outlined in the previous chapters. In this interpretivist research, I needed to perform data interpretation in order to respond to how the cultural aspects affect or contribute to learner engagement within the context of MOOCs in Thailand.

To understand the nature of learner engagement from learners and instructors in the context of MOOCs in Thailand, semi-structured interviews and data collected from the discussion forums were integrated in this study. In order to obtain valid findings of this representative case, the need to guarantee the trustworthiness of credibility, transferability, dependability, and confirmability of the selected MOOC courses was necessary (Shenton, 2004). I addressed the trustworthiness in detail in Section 4.7. More details of semi-structured interviews and the discussion forums are justified in the data collection section below.

4.3 Research Site

This study collected data from Thai MOOC courses offered by a university in Thailand known as Uttaradit Rajabhat University (URU). As I am a university lecturer at this university with ten years' experience, conducting this study in a familiar site allowed me to gain access to the research site, and build rapport with instructors and learners for a semi-structured interview. In addition, conducting this study using the three existing MOOCs as shown below at this university was considered feasible and doable as time and resources were available for data collection. These advantages could then help increase the quality of

data for further analysis leading to quality research results (Marshall & Rossman, 2011), which could be used to offer suggestions to improve MOOCs teaching and learning at my university.

I selected the most appropriate Thai MOOC courses to address the research questions. As the research questions emphasised how Thai learners and instructors practiced their cultural values in learner engagement and in management of MOOCs, as well as how Thai learners reflected Thai cultural aspects in their culturally inclusive learning and how instructors embedded Thai cultural aspects in their culturally inclusive teaching practices, the selection of cases for this study was done with care by following a two-step process as follows.

4.3.1 Step one: Obtaining contextual understanding

Before selecting appropriate MOOCs for this study, I enrolled in the fourteen potential Thai MOOC courses made available in the *ThaiMOOC* platform to gain a contextual understanding. This enrolment allowed me to look at the feasibility of investigating how Thai learners and instructors practiced their cultural values in their engagement and in management of MOOCs in Thai collectivistic culture, including how to obtain data about learners' and instructors' perceptions and experiences through semi-structured interviews and discussion forums. In addition, the context for this study should include information-rich cases. The context should also have an information-rich discussion forum where it was evident there was human-human interaction, communication, and collaboration. Information-rich cases of Thai MOOC courses were then likely to allow me to

successfully collect and analyse data from the participants through the research instruments mentioned above.

To select the information-rich cases for this study, I used a purposeful sampling technique. According to Patton (2002), purposeful sampling focuses on how to choose “a selection of information-rich cases for study in depth” (p. 273). In this step, I purposefully enrolled in fourteen Thai MOOC courses based on their availability and my own observation to see how they meet the criteria of the case selection shown in Table 4.1 below. These criteria were based on the three connectivist MOOC functionalities and Thai cultural aspects Figure 2.3 and Figure 2.4, which were considered the key factors facilitating learner engagement within a Thai cultural MOOCs environment. These courses were then believed to offer information-rich cases yielding insights and greater understanding of the nature of learner engagement in Thai culture (Patton, 2002). After enrolling in these courses, I then selected the three existing Thai MOOC courses offered by URU: *Economics for Happy Living* (Course 1), *Philosophy of Sufficiency Economy* (Course 2), and *Entrepreneurship in 21st Century* (Course 3) for this study as shown in Table 4.2 based on the criteria for the case selection in Table 4.1 including feasibility and practicability of time and resources allowing for data collection mentioned above. Although the three courses seem to be very similar in terms of course length, course structure, and self-paced learning mode, the emphasis was put on the diversity of learners from different backgrounds to provide different learning experiences and perceptions about learner engagement.

Table 4.1: Three potential Thai MOOC courses that demonstrate criteria for case selection

Key characteristics	Course 1	Course 2	Course 3
a. The course participants come from different backgrounds and can demonstrate the different views of learner engagement dimensions based on Hofstede's cultural dimensions and Thai cultural values.	✓	✓	✓
b. The course participants have a wide diversity of profession, age, gender, and field of study.	✓	✓	✓
c. The course focuses on the importance of a learning community where the course participants can interact, communicate, and collaborate with others.	✓	✓	✓
d. The course is designed to support learners' cultural needs and preferences such as mutual relationship, a sense of community, a sense of belonging, and a shared faith and values.	✓	✓	✓
e. The course provides discussion forums for learners to read fellow students' comments, to reply to those comments, and to post their own comments and invite feedback in order to improve their interaction, communication, and collaboration.	✓	✓	✓

4.3.2 Step two: Selection of appropriate cases

After I gained an initial contextual understanding, the three existing Thai MOOC courses offered at URU met the above criteria, as they were considered appropriate and information-rich cases for this study. As the selection of the above three potential MOOC courses was consistent with Creswell and Poth's (2018, p. 102) suggestion that "researchers typically choose no more than four or five cases", the criteria outlined above further helped me select the information-rich cases for learner engagement in this study. The three MOOC courses offered at URU then allowed me to obtain the greatest intensity of the phenomenon of the nature of learner engagement within a Thai cultural context as detailed in Table 4.2.

Table 4.2: Details of Thai MOOC courses for this study

Courses	Course details	Number of students enrolled
Course 1	<ul style="list-style-type: none">- It is an introductory course for undergraduate students and general audience.- It is a self-paced course consisting of five weeks with nine units.- It studies economic roles as well as contemporary economic issues for happy living in an economic society at household, community, and societal levels. The ability to integrate between economic principles and a sufficiency economic philosophy for decision making are also explored for rational consumers or socially responsible entrepreneurs in order to help households, communities, and societies survive together in happiness.- It is considered an xMOOC course, as it provides short videos, additional reading materials, quizzes, and discussion forums for learners to communicate, interact, and collaborate with peers.	1,200
Course 2	<ul style="list-style-type: none">- It is an introductory course for undergraduate students and general audience.- It is a self-paced course consisting of six weeks with ten units.- It discusses background, definitions, principles, and steps of how to apply the philosophy of sufficiency of economy in daily lives such as the <i>household accounting of sufficiency economy philosophy</i>.- It is considered an xMOOC course, as it provides short videos, additional reading materials, quizzes, and discussion forums for learners to interact and collaborate with peers.	2,100

Table 4.2 (continued)

Courses	Course details	Number of students enrolled
Course 3	<ul style="list-style-type: none"> - It is an introductory course for undergraduate students and general audience. - It is a self-paced course consisting of six weeks with nine units. - It focuses on knowledge and understanding of basic characteristics of various businesses; ethics and code of conduct for doing business including daily lives; components, problems, and solutions of doing business; and how to be good, ethical business owners/entrepreneurs in the 21st century. - It is considered an xMOOC course, as it provides short videos, additional reading materials, quizzes, and discussion forums for learners to interact and collaborate with peers. 	750

4.4 Research participants

For the interview, participants of this study consisted of two groups of learners and instructors who undertook the above three potential courses. I employed purposeful sampling to select the participants in this study. A purposeful sampling approach allowed me to gain an insightful and deeper understanding from the richness and diversity of the data found of a particular phenomenon which was learner engagement in Thai culture (Patton, 2002). I sought 30 learners and 3 instructors across the three selected courses as detailed in Table 4.3 and Table 4.4 below for data collection. The participants were believed that they could provide rich information on the phenomenon to be investigated.

Table 4.3: Research participants: Learners

Learners	Courses	Interview time	Gender	Majors	Year
1	Course 2	0:43:10	Female	Business Chinese	3
2	Course 2	0:40:59	Female	Logistics	1
3	Course 2	0:40:28	Male	Logistics	1
4	Course 2	0:48:08	Female	Logistics	1
5	Course 2	0:49:27	Female	Business Chinese	3
6	Course 2	0:43:01	Male	Logistics	1
7	Course 2	0:44:00	Female	English Education	2
8	Course 2	0:54:57	Female	Business English	3
9	Course 2	0:53:52	Male	English Education	2
10	Course 2	0:42:21	Female	English Education	2
11	Course 2	0:48:30	Male	Business English	3
12	Course 2	0:47:07	Female	English Education	2
13	Course 2	0:55:59	Female	English Education	2
14	Course 2	0:57:06	Male	English Education	2
15	Course 3	0:41:10	Female	Business Computer	3
16	Course 3	1:00:38	Female	Accounting	1
17	Course 3	0:37:16	Male	Marketing	1
18	Course 3	0:49:37	Female	Marketing	1
19	Course 3	0:38:21	Female	Business Computer	3
20	Course 3	0:41:44	Female	Marketing	1
21	Course 3	0:36:22	Female	Accounting	1
22	Course 3	0:42:29	Female	Business Computer	3
23	Course 3	0:38:17	Male	Business Computer	3
24	Course 3	0:44:04	Female	Marketing	1
25	Course 3	0:47:43	Male	Accounting	1
26	Course 3	0:45:11	Female	Accounting	1
27	Course 3	0:50:59	Male	Business Computer	3
28	Course 1	0:41:35	Female	Business Chinese	2
29	Course 1	0:58:26	Male	Business Chinese	2
30	Course 1	0:44:28	Female	Business Chinese	2

Table 4.4: Research participants: Instructors

Instructors	Courses	Interview time	Gender
1	Course 1	1:25:24	Female
2	Course 2	1:12:15	Male
3	Course 3	1:17:35	Female

Technically, I needed to initially contact the course instructors to gain the approval for data collection. I approached and invited the instructor participants via email to participate in the semi-structured interviews. In this study, instructors were those who teach, facilitate, design, and were responsible for the above courses. They were believed to give rich information on Thai learner engagement because they had already participated in a training session on how to develop and design MOOC courses organised by Thailand Cyber University, the Office of the Higher Education Commission (OHEC). For the learner participants, after receiving permission and their email addresses from the course instructors, I contacted learners via email to invite them to participate in the semi-structured interviews. I specifically considered learners who had completed the courses and participated in discussion forums. The participants were likely to engage more with teaching and learning activities, so they were also expected to provide rich information in the interviews. The prospective participants for this study were university students and instructors with diverse learner identities as mentioned in Table 4.3 and Table 4.4. The details of participant selection are discussed in the ethical consideration section (4.8.1).

4.5 Data collection

There were two sources of data in this qualitative study. I conducted semi-structured one-on-one interviews for my primary data and browsed the discussion forums as an additional source of data to address all the research sub-questions as illustrated in the table below. The two sources were used to triangulate the collected data and to corroborate each other, known as method triangulation (Patton, 1999). Patton (1999) defined method

triangulation as “checking out the consistency of findings generated by different data collection methods” in the same phenomenon (p. 1993). In this study, there was a need to check the consistency of findings of the same phenomenon of learner engagement from the two methods of data collection mentioned above leading to a broader understanding of phenomenon resulting from method triangulation. The two data sources were then used to test for such consistency, rather than simply yielding the same findings, and if such inconsistencies were found in the two data sources, they were considered an opportunity for deeper insight into the relationship between the data sources and the phenomenon to be investigated (Patton, 1999).

4.5.1 Linking research questions with methods and data sources

The following table shows the link between research questions and how to collect data through different methods and data sources to answer the questions in this study.

Table 4.5: Link between research questions, methods, and data sources

Research questions		Methods	Data sources
Central research question	Sub-questions		
How and in what manner do Thai learners and instructors practice their cultural values in their engagement and in management of MOOCs?	1. How do Thai learners perceive their engagement dimensions within MOOCs, and how do they reflect Thai cultural aspects in their learning?	Semi-structure one-on-one interviews (face-to-face) Browsing the discussion forums	Learners Discussion forums

Table 4.5 (continued)

Research questions			
Central research question	Sub-questions	Methods	Data sources
	2. How do Thai instructors determine learner engagement dimensions within MOOCs, and how do they embed Thai cultural aspects in their teaching practices?	Semi-structure one-on-one interviews (face-to-face)	Instructors
	3. How are the learner engagement dimensions enacted in MOOCs interaction, communication, and collaboration?	Semi-structure one-on-one interviews (face-to-face) Browsing the discussion forums	Learners and Instructors Discussion forums

From Table 4.5, a detailed process of obtaining data to answer the three research questions is discussed in the following sub-sections.

4.5.2 Semi-structured interview

Semi-structured interviews were used to address the three research sub questions. An interview instrument was seen as a structured conversation that allowed me to explore the participants' perceptions, understanding, and experience regarding how they are being engaged while undertaking MOOC courses (Yin, 1993). Through that conversation, I had a chance to discover rich and complex information from MOOC students and instructors (Cavana et al., 2001). During an interview session based on a one-on-one basis, each research participant will be able to freely share his/her own information and experience in his/her own words if the interviews are conducted in a friendly atmosphere, and a good rapport between interviewee and interviewer is promoted (Rubin & Rubin, 2011).

I conducted semi-structured one-on-one interviews as a primary source of data in this qualitative study. A semi-structured interview is a mixture of a pre-determined set of open-ended questions and a chance for me to learn more information with the participants (Yin, 2009). With this type of inquiry, I asked each participant the same set of open-ended interview questions as shown in Appendix A and Appendix B, and then followed up with different follow up questions to encourage each participant to share more perspectives on the four engagement dimensions. With specific reference to the follow up questions, asking questions that were appropriate to each participant could provide ample room for freedom and flexibility to explore the truths of what he/she perceived or experienced of the four dimensions of learner engagement.

The interviews with the Thai MOOCs learner participants emphasised their perceptions of the engagement dimensions of behavioural, cognitive, emotional, and social by focusing on their interaction, communication, and collaboration with peers and instructors when undertaking Thai MOOC courses. The interviews also focused on how each learner found, connected, maintained, and strengthened the nodes or learning communities. In addition, the interviews took Hofstede's six Thai cultural dimensions (i.e., high power distance, high uncertainty avoidance, collectivism, femininity, normative society, and a restraint tendency) and the five Thai cultural values (i.e., karma, staying calm, gratitude and indebtedness, mercy and kindness, and consideration) into consideration in order to understand Thai cultural learner engagement.

The interviews with the Thai MOOCs instructor participants focused on how they improved the four dimensions of learner engagement and how they embedded Thai cultural

aspects and values in their culturally inclusive teaching practices. In particular, as MOOCs instructors were seen as facilitators, the interviews focused on how they helped encourage learners to construct or strengthen their existing knowledge through connecting to different nodes or learning communities.

To obtain the above data successfully from the first group of learner participants, I contacted the course instructors by email to gain access to potential learners. I obtained written approval from the course instructors prior to performing semi-structured interviews. Following approval, I recruited the participants by inviting them through the QUT email and flyer recruitment forms as shown in Appendix D. If they were happy to take part in the interview process, additional information was given to ensure that their agreement and willingness to participate were informed by using the participant information sheet and the consent form. This selection process was conducted when ethical approval was granted from the UHREC. For the second group of instructor participants, I followed the same recruitment process as I did with the first group. More details of the actual strategies I used for data collection are available in Section 4.8 (Ethical consideration).

The interview questions were developed based on what was discussed above. These interview questions served as prompts in obtaining answers from the participants during the interviews (Yin, 2009). This implies that instead of closed-ended questions, I asked more open-ended questions in order to offer an opportunity for the participants to freely express their opinions such as perceptions about the course; interactions, and collaboration; feelings; and learning and teaching practices. The follow-up questions were also needed in the semi-structured interview as I could use them to encourage the participants to provide additional

information in greater depth. The interview questions in each engagement dimension below were developed based on the components in the frameworks in Figure 2.3 and Figure 2.4. Examples of interview questions for learners and instructors are shown in Table 4.6 and Table 4.7 respectively.

Table 4.6: Examples of interview questions for learners

Interview questions
<ul style="list-style-type: none"> • If you found the learning tasks very difficult, what did you do? Did you continue or stop doing those tasks? Did you seek any help from peers? If yes, from whom and why? • Did you participate in a learning community? If yes, how often did you participate in and how did you find this learning community? • How did you construct a mutual understanding with peers for a specific learning task or assignment? • How did you deal with the learning activities that were uncertain or ambiguous? Did they affect your learning performance? Why? • How did you feel when you had to discuss your learning assignments/tasks with your instructors or senior students? • Did you show positive and negative emotions to peers? How and why? • What communication tools did you use to interact and collaborate with your instructors and classmates? • What were classroom interactions like? Did you regularly interact and collaborate with your instructors and classmates? If so, how?

Table 4.7: Examples of interview questions for instructors

Interview questions
<ul style="list-style-type: none"> • How did you encourage your learners to invest their time and effort in completing their learning tasks? • Did you provide any special tasks or projects in this course to improve learner engagement? If yes, how and why? • How did you improve your learners' in-depth understanding of complex concepts? Did you have any particular steps? • How did you provide an opportunity for learners to collaboratively co-construct knowledge with peers? • How did you encourage learners to share their feeling expressions when collaborating and communicating with peers and you? • Did you consider learners' interest, enjoyment, and happiness to be an important part of designing this course? If so, how and why?

The above interview questions were used to further develop an interview protocol for MOOCs learners and instructors as shown in Appendix A and Appendix B. I developed the interview protocol both in Thai and English. I first developed the protocol in English and then had it checked by a supervisory team for face validity. After that, I translated the protocol into Thai using professional translation guidelines.

I audio-recorded the face-to-face, semi-structured interviews in the Thai language. Before commencing each interview, I had to make sure that the interview sessions were held in a comfortable atmosphere. All learners and instructors were told as outlined in the QUT research project forms: Participant Information Form and Consent Form. Every participant was told before the start of each interview that all responses were anonymous and confidential. They were also told that the interview process was purely optional, and they were able to decline at any time from the interview process and were free to withdraw up to any point in time from the analysis process.

All audio recordings were transcribed into Thai after all the interviews were finished. Although the transcription process was time-consuming, it was useful for me to become familiar with the data. For the accuracy of a written transcript, I employed a *member checking* technique. For the member checking process, I requested the respondents to read their transcripts to confirm the accuracy of information given during the interviews (Shenton, 2004). This process also allowed the participants to include additional information relevant to the interview questions being asked. However, I did not translate the entire transcripts from Thai into English, as the translation was a time-consuming task and could involve extensive cost. I only translated relevant information to be used as evidence in this study,

which was *initial codes containing in-vivo words/phrase*. Details of the translation rules can be found in Phase 2: Generating initial codes in Section 4.6.2.

4.5.3 Browsing discussion forums

I used the browsing of the discussion forums as my second source of data, as this additional information might help me gain a deeper understanding of interactions and relations regarding learner engagement that I could not obtain via semi-structured interviews (Nørskov & Rask, 2011). I only searched for additional information from the discussion forums rather than from other sources, such as quizzes and reading materials, as this study examines how the participants interact, communicate, and collaborate with others.

The purpose of an online discussion forum as an asynchronous communication tool is to allow learners to interact, collaborate, and share (Mazzolini & Maddison, 2003, p. 238). This study only used discussion forums rather than including other asynchronous and synchronous communication tools, as these forums were considered a second source of data collection, and the context of this study was xMOOC courses that only offered the forums as the main communication tool among learners and instructors. In a connectivist learning, online discussion forums are seen as a node or learning community where learners can post questions, discuss, and share knowledge with peers that lead to a thread containing diverse ideas and interactivity (Downes, 2012). When learners perceive messages and interactivity in discussion forums that are useful and help strengthen knowledge, they are likely to look for or connect to other nodes to further share their ideas with others, and vice versa. Messages containing meaningful information are obtained from individuals who exchange and share

their knowledge and experience with other class members (Nørskov & Rask, 2011). Messages appear in the forms of posts, threads, and comments produced by the participants. In this study, I used a browsing protocol (see Appendix C) to observe these messages to identify the four learner engagement dimensions: behavioural, cognitive, emotional, and social. I considered messages that were related to research purpose and questions (Creswell & Poth, 2018), along with the components illustrated in the frameworks in Figure 2.3 and Figure 2.4. I needed to manually extract messages to store in a Word document. By doing this, it was convenient for data analysis, and easier for me to read and produce a number of copies (Cohen et al., 2002). When browsing the discussion forum, I defined myself as a non-participant by being an outsider of the group under study (Creswell & Poth, 2018). This means that I did not involve or interact with the group members by either posting or giving comments in discussion forums, but I only read their messages in order to identify the four engagement dimensions.

When browsing the discussion forums, I searched for messages relevant to each learner engagement dimension using a variety of indicators. These indicators were derived from the literature review; in particular, the indicators of the cognitive and social dimensions were developed based on Garrison (2011)'s suggested indicators. The indicators of each engagement dimension are presented as follows.

First, behavioural engagement had four indicators: posting, commenting, voting, and following. These four indicators were considered features representing behavioural engagement in discussion forums offered by Thai MOOC courses using the Open edX platform. The *posting* feature allowed the participants to post questions derived from their

interest and curiosity to seek additional responses and collaboration from other participants. The *commenting* feature provided an opportunity for the participant to give comments or feedback. The *voting* feature allowed the participants to vote for other discussion participants, and the *following* feature allowed the participants to receive a notification of a particular post of interest to them.

Second, cognitive engagement had four indicators: triggering, exploration, integration, and resolution (Garrison, 2011). The first phase, *triggering*, allowed forum participants to post questions and express curiosity in a forum that needed further discussion. The second phase, *exploration*, allowed the participants to brainstorm by searching for related information to support or contradict the question or query posted in the first phase. The third phase, *integration*, allowed the participants to find possible solutions and explanations with peers. The final phase, *resolution*, allowed the participants to critically evaluate potential solutions for the final solution with a new idea. In short, these four phases of cognitive engagement were triggering (question and puzzlement), exploration (exchange of knowledge, suggestions, thinking up, and opinions), integration (relation between concepts, integration, and strategies), and resolution (application, test, and defence) (Garrison, 2011).

Third, emotional engagement had two main indicators: positive affective feelings and negative affective feelings. Positive affective feelings consisted of appreciation, joy, desire, happiness, surprise, and thankfulness (e.g., Curran & Standage, 2017; Hartnett, 2015; Li, 2015; Trowler, 2010). Negative affective feelings included dislike, disappointment, fear, frustration, and confusion (e.g., D'Mello et al., 2017; Lester, 2013).

Fourth, social engagement comprised three indicators: interpersonal communication, open communication, and cohesive communication (Garrison, 2011). The *interpersonal communication* indicator consisted of interpersonal communication, self-revelation, and the use of amusement. The open communication indicator had a recurring thread, referencing from messages from peers, responding to messages from peers, asking questions, praising, and voicing agreement. The *cohesive communication* indicator had vocatives (addressing or referring to participants by name), addressing or referring to the cohort with inclusive pronouns, greetings, and salutations.

I considered collecting data from the above three Thai MOOC courses. These courses provided discussion forums through various forum threads for learners to interact and collaborate with peer learners and instructors as shown in the following table. The course instructors regularly encouraged learners to share opinions and solutions to a particular problem as required in the course structures.

Table 4.8: Browsing strategies for discussion forums

Strategies for	Details
My roles	<ul style="list-style-type: none"> - I defined myself as a non-participant in discussion forums. - I only looked at how the participants communicate, interact, and collaborate with other participants. - I did not post, reply, give comments, or interact with the participants.
Forum messages	<ul style="list-style-type: none"> - I scanned for messages using a browsing protocol at the three levels of discussion forums: posts, threads, and comments as these messages, especially for the threads with a number of replies and comments, can contribute to the three dimensions of learner engagement.

Table 4.8 (continued)

Strategies for	Details
	- I managed data by manually collecting messages using the screenshot feature on my desktop computer, and then compiled the pictures into a single Word document for each forum thread. It was done for the sake of convenience, and there was no difficulty with manual analysis.
Courses	<p><u>Course 1</u></p> <p>Thread 1: Self-introduction / Thread 2: What makes you happy? / Thread 3: How do you feel with this course?</p> <p><u>Course 2</u></p> <p>Thread 1: Self-introduction / Thread 2: Sharing your experience about Philosophy of Sufficiency of Economy / Thread 3: Sharing your examples of how to apply Philosophy of Sufficiency of Economy in your daily lives / Thread 4: How did you feel after undertaking this course?</p> <p><u>Course 3</u></p> <p>Thread 1: Self-introduction / Thread 2: Sharing your ideas of being an entrepreneur / Thread 3: Sharing how to promote your local produce or products / Thread 4: How did you feel after undertaking this course?</p>

4.6 Data analysis

This study employed thematic analysis to analyse the collected data. I analysed the transcripts in Thai language from both semi-structured interviews and discussion forums using thematic analysis. Thematic analysis can be done through a systematic process of searching for themes that help define the phenomenon and provide a comprehensive account of it (Fereday & Muir-Cochrane, 2008). According to Braun and Clarke (2006), thematic analysis is divided into six phases of “1. Familiarising yourself with your data, 2. Generating initial codes, 3. Searching for themes, 4. Reviewing themes, 5. Defining and naming themes, and 6. Producing report” (p. 87). Each phase is presented in more detail below.

4.6.1 Phase one: Familiarising yourself with your data

For the first phase, by reading and re-reading the transcripts in Thai, I became acquainted with the data. This initial stage was considered the start of a data analysis process by thoroughly reading and re-reading the interview data collected from the learners and instructors. Verbatim information from what the participants demonstrated helped me better understand and familiarise myself with the four learner engagement dimensions to be investigated (Halcomb & Davidson, 2006).

Specifically, I documented my thoughts about potential codes and themes for learner engagement by applying the conceptual and theoretical frameworks to identify conceptual and/or meaningful relevance, which became a theme or sub-theme.

- Component 1: the six cultural dimensions of Thailand (i.e., high power distance, high uncertainty avoidance, collectivism, femininity, normative society, and restraint tendency) seen as the cultural assumptions for Thai culture were validated by understanding Thai cultural learner engagement in this study. With considering these cultural dimensions when asking the participants in the interviews in the Thai MOOC courses, the six cultural dimensions allowed for understanding of how learners reflected culture in their learning and how instructors authentically embed culture in their teaching practices in terms of cultural engagement.
- Component 2: the five Thai cultural values (i.e., karma, staying calm, gratitude and indebtedness, mercy and kindness, and consideration) were employed to make the six cultural dimensions more specific in the particular context of Thai MOOC learning.

Understanding these cultural values was critical to Thai culture, which not only enriched an understanding of the above anthropologists' Thai cultural dimensions but also enhanced the understanding of how learners reflected culture in their learning and how instructors authentically embedded culture in their teaching practices for cultural inclusion and diversity to improve learner engagement, with specific reference to MOOCs learning environment.

- Component 3: in accordance with the above two components, the three key functionalities of connectivism were used as a theoretical lens to examine the four dimensions of learner engagement. This means that themes and sub-themes arose from the five Thai cultural values and the six Thai cultural dimensions of Hofstede were connected to the three functionalities.

4.6.2 Phase two: Generating initial codes

For the second phase, the process of coding was performed. This process was important, as it is considered the start for most types of qualitative data analysis (Bryman, 2016). Examples of questions that I kept in mind when developing codes were “What did this item of data represent? What was this item of data about? What sort of answer to a question about a topic did this item of data imply? What was happening here? And, what did the participants say they are doing?” (Bryman, 2016, p. 581).

I began coding initially by constantly reading my original transcripts in Thai, and making as many codes (e.g., collective engagement, community, belonging, interdependence, seniors, respects, Buddhist values, power distance, relationships, normative engagement, and

so on) as possible from what I read. Examples of these codes were likely to be chosen based on key words/phrases used by the participants. The key words/phrases that referred to the actual words used by the participants were known as in-vivo codes. In-vivo codes helped me ensure that a process of generating codes from the data was relevant to a phenomenon of learner engagement being investigated (King, 2008). It is suggested that the initial coding step should be performed as soon as the researcher finishes each transcription in order to help sharpen their understanding of the data and avoid dealing with a heavy workload from multiple transcripts (Bryman, 2016). I performed this step in MS Word as the transcripts were already stored in my laptop.

After that, I translated the initial codes containing direct words/phrases from Thai into English. These initial codes were then shared with my supervisors in order to receive feedback and revise them for their consistency and reliability. For the translation, I used the *back translation* technique to check an equivalence of data between the source language and the target language. A back-translation process requires two bilingual persons to perform the translation. The first translator translates the source language (Thai) to the target language (English), while the second one blindly translates back from English into Thai, which is called back translation (Brislin, 1970). For the translation of these initial codes, I asked my colleague who is a university lecturer and has a good command of both Thai and English to perform a translation. The translated Thai version and the original Thai version were then compared and checked by me to evaluate the equivalence between two versions. If these two versions were identical, it helped confirm the reliability of instrument, the validity of the study, and credibility of the findings (Maneesriwongul & Dixon, 2004).

4.6.3 Phase three: Searching for themes

For the third phase, it allowed me to rigorously review and examine the codes from the previous phase. Practically, I articulated themes by considering hierarchies of concepts. As a result, I noted the three significant topics as themes by triangulating the student interview data, the instructor interview data, and the review of the course websites including the courses' social media. The topics were inclusive of community belonging, relationships with and respect for seniors, and representatives and collaboration.

4.6.4 Phase four: Reviewing themes

For the fourth phase, I revisited the four dimensions of learner engagement and reviewed the themes, which reconfirmed that the three themes were most significant across the four dimensions of learner engagement. In particular, I interpreted themes relevant to concepts/meanings, with specific reference to the cultural relevance of the six cultural dimensions and the five Thai cultural values, including the three presences and three intersecting areas.

4.6.5 Phase five: Defining and naming themes

For the fifth phase, I defined and named the themes. There were three themes emerged from the analysis: (a) *a sense of community belonging*, (b) *a hierarchical but harmonious relationship with seniors*, and (c) *culturally representative communication and collaboration*.

4.6.6 Phase six: Producing report

For the sixth and last phase, I connected the interpretations of themes from the previous phases to address the research questions by considering how the learners reflected Thai cultural aspects in their learning and how the instructors embedded Thai cultural aspects in their teaching practices. Specifically, I described and interpreted the themes, which justified the embedded values of Thai culture in the participant experiences.

4.7 Trustworthiness

In this qualitative study, the trustworthiness consisted of four dimensions of “credibility, transferability, dependability, and confirmability” (Shenton, 2004, p. 64). *Credibility* refers to the degree to which a study is trustworthy and believable. *Transferability* focuses on the findings that could be applicable to other contexts in terms of case-to-case transfer. *Dependability* refers to a process of data collection and analysis performed by the researcher that is logical, traceable, and documented. *Confirmability* refers to how to establish the fact that the data and interpretations are not based on the researcher’s imagination and bias. The interpretations that are presented to the readers should be based on the participants’ information and be able to be seen or understood. Strategies to implement these dimensions are provided in the following table.

Table 4.9: Four criteria of trustworthiness (adopted from Shenton, 2004)

Quality criterion	Potential arrangements made by the investigator
Credibility	<ul style="list-style-type: none"> - Using well established study methods - Developing an awareness of the culture of learners undertaking Thai MOOCs - Having a good interview technique by probing the response, not accepting the first answer, asking for detail, asking for examples - Having debriefings with supervisors - Having cohort analysis of reviews from supervisors - Providing an opportunity for the participants to read their interview transcripts and make changes - Analysing findings from previous study to see similarities and differences with this study
Transferability	<ul style="list-style-type: none"> - Giving history and comprehensive details about the Thai MOOCs under investigation to allow comparison of the findings - Having detailed research methods and the research's role to be applicable for other contexts - Having a highly detailed description of the findings so that the readers may recognise similarities in their own situations - Providing several suggestions for future research
Dependability	<ul style="list-style-type: none"> - Giving a detailed explanation of the methodology in order to make the results repeatable and reliable - Having the data collection and analysis processes and the research results reviewed by the examiners to confirm the accuracy of the findings
Confirmability	<ul style="list-style-type: none"> - Having data interpretations focused on the information of the participants, rather than the bias of the researcher - Providing a detailed overview of data collection, data analysis, and data interpretation - Recording data collection and data analysis steps, such as writing coding thoughts or describing what the theme means

4.8 Ethical consideration

4.8.1 Semi-structured interview

This study collected primary data from Thai learners and instructors who undertook massive open online courses (MOOCs) in Thailand using semi-structured interviews. Prior to data collection, I needed to obtain ethical approval from the University Human Research Ethics Committee (UHREC) for low-risk human research. The learners and instructors who participated in semi-structured interviews were approached and protected as regards their privacy and confidentiality as follows.

For the first group of learners who undertook Thai MOOC courses, I contacted the course instructors by email to gain access to potential learners. I obtained written approval from the course instructors prior to performing semi-structured interviews. Following approval, I recruited the participants by inviting them to participate through the QUT email and flyer recruitment forms. If they were willing to take part in the interview process, additional information was provided to make sure that they were sufficiently briefed about their agreement and approval to participate using the participant information sheet and consent form. When I received ethical approval from the UHREC, this selection procedure was conducted.

I contacted the second group of instructors directly using the same documents. If they were willing to take part in this study, I followed the same recruitment process as the first group mentioned above.

Participants received the participation information sheet within the interview invitation email. They were requested to respond to the email if they agreed to participate in a semi-structured interview. Meanwhile, any questions about the project were responded to in a timely manner. In case I did not receive any response to their first email, only one follow-up email was sent within one week. No response to the second email was considered a potential participant's decision to not take part in this study.

Prior to commencing a semi-structured interview, I obtained the participants' consent to participate. All participants received an information sheet that fully informed them about the study and the implications of their involvement. The information sheet explicitly stated that involvement in the study was voluntary. Participants could decline to discuss any topic or withdraw from participation at any time during the interview, without comment or penalty. It was also made clear to the participants that choosing to take part or not had no impact on their current or future relationship with QUT, the course that they were undertaking or were responsible for, or any assessment. The information sheet was also discussed with learners and instructors before the interview and before receiving their agreement to be interviewed. Additionally, the learner and instructors had an opportunity to ask questions and to discuss the information and their decision with peers if they wished. Therefore, the interview was not conducted until consent was received.

For their privacy and confidentiality, all learners and instructors were informed that all given information was private and unidentified. They were told that any data that could be detected was also omitted from transcripts. No publicly identifiable or private data gathered from this analysis was ever disclosed. The interview was conducted face-to-face,

based on their preference and comfort, as desired by the participants. In addition, any direct identifiers were removed from the data and replaced with a code, so no accurate demographic or other information was available to make a participant identifiable in this thesis. I also needed to delete audio files after transcription.

4.8.2 Browsing of discussion forums

For the browsing of the discussion forums, I needed to obtain consent from the 30 learners who also took part in the semi-structured interview, as shown in Appendix D, Consent Form for Interview and Browsing of Discussion Forums. In this study, I defined myself as a nonparticipant who only observed how the 30 learners interacted and collaborated with their peers. I did not post, reply, or provide any feedback in discussion forums. I started to collect data related to learner engagement after I obtained consent from the course instructors. The participants involved in this phase of data collection were covered in terms of their anonymity and security. This means that their statements and identities were seriously taken into consideration. I never disclosed personal information or private data obtained from this study. Any direct identifiers were removed from the information and replaced with a code.

4.9 Chapter summary

This chapter discussed the research methodology and design that were employed in this study. First, the chapter begins with a discussion of research methodology of interpretivism employed in this study. Second, the research site is discussed by focusing on

a two-step process of obtaining contextual understanding and selection of appropriate cases in order to select the most appropriate MOOC courses for this study. Third, two groups of learners and instructors as research participants are discussed. They are defined who they are and how I approached them in this study. Fourth, the detailed framework for data collection involves two sources of data: semi-structured interviews and browsing of discussion forums. In this phase, the development of the interview questions for students and instructors as well as how to obtain rich information from discussion forums in this study are also discussed. Fifth, the six phases of thematic analysis are presented. Sixth, four criteria, credibility, transferability, dependability, and confirmability, of the trustworthiness of the study are discussed by presenting strategies to implement these criteria. Finally, an ethical consideration of the study is discussed to obtain ethical approval for this low risk human research.

CHAPTER 5: ANALYSIS AND FINDINGS

5.1 Introduction

This chapter presents the thematic analysis of the collected data and the findings based on the themes. The objective of the analysis is to understand learners' engagement in the Thai MOOCs courses and explore the cultural relevance of this engagement. The findings are presented based on the first two research sub-questions: 1) How do Thai learners perceive their engagement dimensions within MOOCs, and how do they reflect Thai cultural aspects in their learning? And, 2) How do Thai instructors determine learner engagement dimensions within MOOCs, and how do they embed Thai cultural aspects in their teaching practices? In this chapter, there are two main sections based on the above research sub-questions: learners' perceptions of their engagement dimensions and cultural impacts (5.2) and instructors' improvement of learner engagement dimensions and cultural reflections (5.3).

In this qualitative study, the findings of each section are consistently presented into the four dimensions of learner engagement: behavioural, cognitive, emotional, and social. Each dimension is then followed by themes and sub-themes found in the data collected using thematic analysis. However, not all sub-themes are presented because some are subsumed in either sub-themes or themes. The interview transcripts are analysed using Braun and Clarke's (2006) six phases of thematic analysis: 1) Familiarizing yourself with your data, 2) Generating initial codes, 3) Searching for themes, 4) Reviewing themes, 5) Defining and naming themes, and 6) Producing report. As the data obtained from browsing the discussion

forums did not contain rich information on cultural aspects, I decided not to include them in this chapter. I only used the data from the discussion forums to support the discussion section where appropriate.

5.2 Learners' perceptions of their engagement dimensions

The analysis of the collected data and its findings presented in this section address the first research sub-question: How do Thai learners perceive their engagement dimensions within MOOCs, and how do they reflect Thai cultural aspects in their learning? This section is composed of four sub-sections: behavioural engagement (5.2.1), cognitive engagement (5.2.2), emotional engagement (5.2.3), and social engagement (5.2.4).

5.2.1 Behavioural engagement dimension

As discussed in Chapter 2, behavioural engagement refers to learners' persistence, effort, attention, participation, and involvement in learning activities (Al Mamun et al., 2016; Axelson & Flick, 2010; Bryson, 2016; Fredricks et al., 2004; Kahu, 2013; Radloff & Coates, 2010). It also refers to quality involvement in learning tasks such as asking questions, expressing ideas, giving feedback, or contributing to class discussions (Ardichvili et al., 2006; Lester, 2013).

Table 5.1 shows the results of data analysis of how the learner participants (n = 30) perceived their behavioural engagement in this study.

Table 5.1: Learners' behavioural engagement

Themes	Sub-themes	Learners (n = 30)
1. Completing 'given' tasks (e.g., individual tasks and group tasks)	1-1. Completing individual tasks (e.g., watching video clips and completing quizzes)	29 (96.67%)
	1-2. Completing in-class and out-of-class group tasks (e.g., group discussion and projects)	11 (36.67%)
2. Making efforts to manage difficult tasks (e.g., assignments, video contents, and quizzes)	2-1. Making own attempts using prior knowledge and experience	3 (10.00%)
	2-2. Asking help from others via social media and Facebook course webpages	30 (100.00%)
	2-3. Searching for more information from internet using Google	10 (33.33%)
3. Participating in group learning via Facebook course webpages ³		11 (36.67%)

Theme 1. Completing 'given' tasks (e.g., individual tasks and group tasks)

The first theme appears significant, as most learner participants responded that, for them, learning meant completing the 'given' tasks. The majority of learner participants tended to prioritise individual tasks rather than group tasks. In fact, their understandings of group tasks could be described as closer to individual role-driven group work. Furthermore, all the three courses provided tasks that were individual driven (e.g., watching video clips and completing quizzes). Two courses provided group tasks (e.g., group discussion and group projects) which were likely to focus on task completion through individual-to-individual interactions. Specifically considering the second sub-theme, *Completing in-class and out-of-*

³Facebook course webpages are provided as part of the MOOC offerings at Uttaradit Rajabhat University (URU). It is offered via Facebook, whereas the MOOC websites are offered via the national *ThaiMOOC* platform. The purpose of the Facebook webpages is to give an opportunity for URU students to interact, communicate, and collaborate with peers and instructors. It is considered a group learning environment. Students can also use the course webpages to submit the extra group tasks and get more course information and updates for further discussions with peers and instructors.

class group tasks, Thai learners appeared to demonstrate collective participation in completing group assignments and projects through interaction and collaboration.

For *Completing individual tasks (e.g., watching video clips and completing quizzes)*, 29 learners (96.67%) perceived that MOOCs learning meant that individual students were required to complete given and scheduled tasks. One learner provided a typical example, “I learn [through completing given tasks] as indicated in the course syllabus, such as reading the content, watching videos, and doing quizzes” (Learner 2/Course 2).

For *Completing in-class and out-of-class group tasks (e.g., group discussion and projects)*, 11 learners (36.67%) said that they were instructed to participate and complete in-class and out-of-class group tasks. The group tasks were provided to give an opportunity for them to gain more understandings of what they have learned from the videos. The group tasks, such as participating in group projects or writing a report with peers, were assigned in both online and out-of-class group activities. In an in-class group task, “the instructor encourages every group member to contribute and participate in this activity” (Learner 20/Course 3). More specifically, a specific group task needed to be performed through a subgroup. Learner 23/Course 3 stated, “We also need to form a subgroup to participate in a group discussion for a specific task to deal with learning content, write a report, or prepare a power point presentation shared in a [Facebook] course webpage”. For an out-of-class task, learners who enrolled in the Philosophy of Sufficiency Economy course, for example, were assigned to participate in group tasks that were performed in the local sites as a short field trip to grow various kinds of plants in a garden bed (Learner 3 and 5/Course 2). Although

students stated that they were ‘encouraged’ to participate in and contribute to group projects, their statements indicated that they were instructed to complete given tasks in group settings.

Theme 2. Making efforts to manage difficult tasks (e.g., assignments, video content, and quizzes)

The second theme deals with how learners solved a problem of experiencing the difficult tasks (e.g., assignments, video contents, and quizzes). All the learner participants indicated that they were instructed to engage in learning through the use of social media, such as the Facebook community, to seek clearer understanding of the difficult tasks. This behavioural engagement was interpreted as an effort to learn, as it refers to their attempts, first, to use their prior knowledge and experience, and then to self-study to overcome and complete difficult tasks. In addition, they showed their efforts to complete the difficult tasks by using Google search to find more relevant information. In relation to the key functionalities of connectivism, Thai learners used communication tools, such as social media communities, as a means of collaborating with peers to complete difficult tasks.

For Making own attempts using prior knowledge and experience, only three learners were explicit on strategies they used. They reported, “First of all, I will need to do my best based on my understanding of the assignment” (Learner 10/Course 2); “If it’s difficult, I will first try it by myself by using prior knowledge and experience” (Learner 13/Course 2); and “First of all, I will study it by myself” (Learner 25/Course 3). The statements showed no evidence of how learners demonstrated their prior knowledge and experience to deal with difficult tasks, but rather, they sought help of others, as shown in the following sub-theme.

For *Asking help from others via social media and Facebook course webpages*, 30 learners (100.00%) agreed to continue doing the difficult tasks by asking for help from others: peers and instructors. The learners preferred to discuss with group members (i.e., learner-learner interaction) to seek a better understanding and then approach the instructors (i.e., learner-instructor interaction) if they needed further clarification. As Learner 21/Course 3 mentioned, “I first discuss with peers, but if still don’t understand the assigned tasks, I consult with an instructor of what to do next via a Facebook course webpage to gain more examples and understanding”. By contrast, only two learners responded that they had asked the instructor first and then their peers using Facebook and the online community (Learner 16 and 17/Course 3). Interestingly, another three learners preferred to manage difficult tasks through only learner-learner interaction via the social media community with specific reference to video contents and quizzes (Learners 3, 11, and 14/Course 2), while only one out of 30 said that she guessed answers without asking for help from others or human interaction (Learner 12/Course 2). Overall, most learners appeared to ask peers for help firsthand through group discussions and then through instructors if they still needed more clarification to solve the difficult tasks.

For *Searching for more information from internet using Google*, 10 learners (33.33%) used ‘*Google search*’ to obtain additional resources. This is another way of showing their persistence without any pressure from others to complete the difficult task. One learner mentioned, “I will first try to find the answers by myself using Google. This can be considered a trigger for me to have a desire to learn more” (Learner 9/Course 2). Interestingly, three learners combined searching for more information from the internet by interacting with

other learners and instructors. One learner pointed out, “Sometimes I search for more information from the internet. If I’m still unclear, I will ask the teacher assistants using a chat function made available in the Facebook course webpage” (Learner 4/Course 2). The quality of peer-to-peer interaction can be found in the next theme.

Theme 3. Participating in group learning via Facebook course webpages

Eleven learners (36.67%) perceived the Facebook course webpages as a learning community to post questions and group tasks (e.g., projects and assignments) to seek a clearer understanding of a particular topic related to the learning activities and use them as a trigger for further discussion, respectively. A typical example is evidenced, “I usually participate in this webpage by hitting ‘Like’ for those who posted the extra group tasks or questions. I think it’s good for students to learn and discuss more with peers and instructors” (Learner 23/Course 3).

In brief, in terms of behavioural engagement, the majority of the learner participants seemed to be of the opinion that, when undertaking MOOC learning, regarding individual participation in completing the given tasks, it was only necessary to watch video clips and complete the quizzes, to complete the courses. Yet when faced with difficult tasks such as group assignments, they seemed to realise that participating in group learning to seek ideas and opinions from others through social media communities, such as Facebook, could allow them to learn more and complete their tasks. However, none of the learners explicitly mentioned that they demonstrated their persistence and involvement in MOOC learning by maintaining the quality of the discussion and through a high level of engagement. From

seeking further interaction and collaboration with others through social media communities to completing the group tasks, it seemed that the learners were more collectivistic than individualistic. In other words, their perceptions of behavioural engagement, such as participation in group discussions and projects, were likely to be collective. Further discussion on the collectivistic behaviour of Thai learners is, therefore, needed.

5.2.2 Cognitive engagement dimension

In this study, based on the review outcomes in the literature, cognitive engagement refers to how learners co-construct knowledge and build a mutual understanding of academic tasks with others through various learning skills, critical, creative, and analytical. It involves students building an in-depth understanding of academic tasks to construct knowledge (Zepke, 2018). It is also regarded as an internal investment and effort leading to acquiring knowledge and skills (Newmann et al., 1992).

Table 5.2 shows the results of data analysis of how the learner participants (n = 30) perceived their cognitive engagement in this study.

Table 5.2: Learners’ cognitive engagement

Themes	Sub-themes	Learners (n = 30)
1. Brainstorming to solve problems together	1-1. Brainstorming ideas together for solutions via Facebook community	25 (83.33%)
	1-2. Casting a vote to be accepted by the majority	9 (30.00%)
	1-3. Exerting effort to develop a mutual understanding through personal tutoring	8 (26.67%)
2. Developing sensemaking interaction with others	2-1. Showing no hesitation to ask and share opinions with same-aged peers	10 (33.33%)
	2-2. Incorporating socio-cultural relevance into decision-making with older peers	12 (40.00%)

Table 5.2 (continued)

Themes	Sub-themes	Learners (n = 30)
	2-3. Having a learning problem solved by instructors	14 (46.67%)
3. Solving uncertainty and ambiguity	3-1. Undertaking a mutual understanding with peers to solve problem via social media communities	5 (16.67%)
	3-2. Seeking deep understanding from instructors via social media communities	9 (30.00%)
	3-3. Obtaining self-clarification using Google search	14 (46.67%)

Theme 1. Brainstorming to solve problems together

The first theme presents the interaction and collaboration strategies used among the learner participants via brainstorming together to complete the given tasks when undertaking MOOC courses. Most learners appeared to brainstorm ideas to find solutions with others. Although brainstorming together seemed to be mostly demonstrated by the learners, it was unlikely that using a single method would be enough to solve urgent tasks such as dealing with due dates. Some participants appeared to seek majority approval of a task by casting a vote, whereas others seemed to exert the effort necessary to build a mutual understanding through explanation.

For *Brainstorming ideas together for solutions via Facebook community*, 25 learners (83.33%) reported that they perceived the relevance of completing the given tasks through brainstorming with others via the Facebook community. Brainstorming is seen as an effective way to find the best conclusion (Learner 12/Course 2) and best solution (Learner 13/Course 2). The details of evidence are illustrated in the following quotes.

We need to firstly listen to peers' opinions, and then we seek a mutual understanding by brainstorming with other group members to find the best conclusion for

completing a particular task through social media like Facebook. It's because we need to agree with the majority. (Learner 12/Course 2)

We need to discuss about the assigned tasks via Facebook. Each group member shares different ideas to construct our understandings together, so we need to brainstorm to find the best solution for that task based on the tasks' objectives and reality. (Learner 13/Course 2)

When learners get together to brainstorm, the following two learners provided more details of how they constructed a mutual understanding with peers via the Facebook community. They stated, "We can get together to brainstorm via Facebook. Everyone can work together to find a conclusion to successfully complete the assigned task" (Learner 8/Course 2), and "The heart of doing group task is brainstorming, as we need to discuss together by forming a group chat via social media, as it can take place anywhere, anytime" (Learner 14/Course 2). However, brainstorming appeared to be insufficient in some cases to select the best task conclusion when there were a lot of ideas/opinions demonstrated by the group members. An alternative strategy is then presented in the following sub-theme.

For *Exerting effort to develop a mutual understanding through personal tutoring*, eight learners (26.67%) indicated that when some group members did not agree with others or had different ideas, an explanation was another strategy to develop a better mutual understanding among group members. To develop a mutual understanding, "I do my best to explain it to one of my peers who has a different view towards the task. After that, we can work together, as we can develop a mutual understanding" (Learner 3/Course 2). Overall, the learners used various strategies demonstrated above to help build mutual understanding for

best solutions for the given tasks. These strategies then appeared to enhance how the learners co-constructed knowledge as discussed in the following theme.

Theme 2. Developing sensemaking interaction with others

The second theme shows how the learner participants incorporated socio-cultural relevance to help improve sensemaking interactions to facilitate decision-making with older peers. According to Wang et al. (2014), sensemaking interaction is considered a deeper level of cognitive engagement in a MOOCs learning environment, where learners appear to seek interaction and communication with peers to build network connections. In the analysis, the learners reported that they incorporated socio-cultural aspects into the development of sensemaking interactions in order to further ask and share ideas for problem-solving with others. The socio-cultural aspects included showing respect, social etiquette, and consideration.

For *Showing no hesitation to ask and share opinions with same-aged peers*, 10 learners (33.33%) reported that using a formal-language Q&A method seemed to be an effective strategy. As one learner stated, “It depends on who I’m talking to. If they are serious people, I will use a Q&A strategy” (Learner 13/Course 2). This Q&A method was also applied to the informal way of problem solving, when the same-aged learners did not hesitate to ask and share ideas using informal language as exemplified, “We don’t have any hesitation to express our opinions. So, we tend to use an informal language when communicating with same-aged peers” (Learner 8/Course 2).

For Incorporating socio-cultural relevance into decision making with older peers, 12 learners (40.00%) appeared to value age and seniority, which are considered an influential factor in learner-to-learner communication. This socio-cultural relevance was demonstrated by the learners through respect, social etiquette, and consideration, which appeared to help younger learners develop interactions with older peers for better decision-making. For showing respect, “We need to show our respect to senior peers by using polite words. We also need to use a specific word ‘Pee’, which means older brother/sister, to show seniority before his/her name every time” (Learner 24/Course 3). This statement is further supported by the following quote.

When communicating with senior peers, we have to use a higher level of language, as they are older than us. To show them our respect, we have to use the ending particles ‘krab’ for males [brothers] and ‘kha’ for females [sisters] to make the sentences sound more polite. It also helps to ensure that our interactions run smoothly with effective decision-making for the given tasks. (Learner7/Course 2)

For demonstrating social etiquette, as there were senior peers participating in a group, it was considered a good idea for those who were younger to behave appropriately to them. If the younger peers failed to show respect, it seemed to create an unfriendly environment in which to develop interactions and in decision-making. To demonstrate social etiquette to older peers, “We need to show the older peers our etiquette by showing my respect through talking to them in a more formal way when it’s time to make a decision together” (Learner 2/Course 2). In addition, Learner 28/Course 1 pointed out that showing consideration to senior peers was not to be overlooked, “We need to have a different communication strategy when interacting with older peers, as they are older than us. At least, we need to show them

our consideration”. Overall, this sub-theme highlighted that the younger learners needed to be aware of how to communicate and interact with older peers by considering age and seniority, as this concern, which appeared in the forms of respect, social etiquette, and consideration, seemed to be expected by the elderly. It is also believed that taking into account aspects of age and seniority, such as showing respect, could improve the quality of sensemaking interactions that could lead to better decision-making.

Overall, this theme implies that the cognitive engagement of certain Thai learners tends to be influenced by socio-cultural environments that are less independent, but more interdependent and relational. That is, cognitive problem-solving processes are always challenged by and restricted to socio-cultural relations in Thai MOOCs contexts. In particular, the young learners need to be mindful that they show proper manners and social etiquette to seniors (i.e. older peers and instructors) in learning MOOCs to allow for greater interpersonal interactions.

Theme 3. Solving uncertainty and ambiguity

The last theme portrays how the learner participants resolved the uncertain and ambiguous learning activities. The learner participants demonstrated that they focused on undertaking a mutual understanding with peers and seeking a deeper understanding from the instructors. These two methods were done through social media such as Facebook and Line. Line, according to Hsieh et al., (2013), is a modern communication tool that allows students to make voice calls and send texts at any time and from any location. It has ranked first in the free app category in 40 countries, including Japan, Taiwan, Hong Kong, Thailand, and

Singapore. In addition to the above methods, 14 learners preferred to seek a clarification of uncertain and ambiguous learning activities using Google search. In line with connectivist learning, Thai learners used the social media community as a major communication tool to facilitate their interaction and collaboration in order to resolve uncertain and ambiguous tasks.

For *Seeking deep understanding from instructors via social media communities*, nine learners (30.00%) indicated that the instructors provided them with a deeper understanding of uncertain and ambiguous learning activities when asked. Learner 10/Course 2 mentioned that asking an instructor can help learners have a better understanding, and they believed that an instructor can provide the best problem solution. It was evidenced, “If I feel uncertain and ambiguous, I will ask an instructor for a deeper understanding to deal with the problem. I usually chat with him using Line application, as it’s convenient and everyone is likely to have it” (Learner 10/Course 2). Learner 17/Course 3 also reported that the instructor was the right person who can guide him what to do next. He pointed out in the following quote:

I use Line application to send messages to an instructor. When I have uncertainty or ambiguity with my learning, I need to get more information. And an instructor is the right person to consult with, as he can tell me where to get that information to address the problem.

Interestingly, two learners asked both parents and instructors for help. Learner 12/Course 2 stated, “I ask my parents because I think that they know more than me for this subject”, whereas Learner 26/Course 3 asked for help from the instructors from other courses. Overall, this sub-theme shows that Thai learners appeared to heavily rely on others for their cognitive engagement, which is in contrast to the next sub-theme.

For *Obtaining self-clarification using Google search*, 14 learners (46.67%) solved the problem of uncertainty and ambiguity via self-clarification. They sought a clearer understanding of learning activities by independently obtaining additional learning resources from the internet. To facilitate self-clarification, Learner 16/Course 3 stated, “For searching for more information from the internet, we need to use the information that is correct and from the trusted sources or is referenced by research. I start searching for it using Google”.

To sum up, from the analysis of cognitive engagement, although learner participants appeared to be autonomous in self-clarifying uncertain and ambiguous learning tasks using online tools such as Google, most of the sub-themes indicated that learners were likely to rely on others to solve the problems (i.e., brainstorming to solve problems together, sense making through interactions, and seeking help from instructors). This means that learners seemed to incorporate socio-cultural relevance into cognitive problem-solving processes while undertaking Thai MOOCs. In other words, Thai learners’ cognitive engagement appeared to be very social and cultural, or likely to be less independent but more interdependent when undertaking MOOC courses. Specifically, learners valued age and seniority when engaging with others by showing respect, social etiquette, and consideration. This view is confirmed by Pagram and Pagram (2006) who argue that Thai learners are relationship-driven learners who are culturally taught to show respect and politeness to seniors. Further exploration of how the cognitive engagement of Thai learners is shaped by socio-cultural aspects is therefore presented in the next chapter.

5.2.3 Emotional engagement dimension

In this study, emotional engagement is defined as positive feelings and negative feelings. Examples of positive feelings are interest, enjoyment, and happiness (Trowler, 2010). Positive feelings are seen as a prerequisite of students' participation in a learning task (Curran & Standage, 2017); a source of learner intrinsic motivation (Hartnett, 2015; Li, 2015); and, a trigger to start an initial communication among students to allow for further interaction and collaboration (Pellas, 2014). In contrast, examples of negative feelings are boredom, anxiety, sadness, and frustration (D'Mello et al., 2017; Lester, 2013). These feelings prevented students from participating in learning activities by having no or less interaction with peers and instructors, resulting in the failure to increase students' motivation to learn. Possible factors contributing to negative feelings are a sense of being forced, lack of interest, lack of perceived value (D'Mello et al., 2017), lack of access to technology, concerns about money and family support, and pressures on learning (Kahu & Nelson, 2018).

Table 5.3 demonstrates the results of data analysis of how the learner participants (n = 30) perceived their emotional engagement in this study.

Table 5.3: Learners' emotional engagement

Themes	Sub-themes	Learners (n = 30)
1. Enhancing group learning through positive feelings	1-1. Feeling good with doing projects with others	11 (36.67%)
	1-2. Feeling happy with group work	13 (43.33%)
	1-3. Feeling joyful with video clips	12 (40.00%)
	1-4. Feeling comfortable with flexibility of online learning	6 (20.00%)
	1-5. Feeling thankful to instructors and guest speakers	4 (13.33%)

Table 5.3 (continued)

Themes	Sub-themes	Learners (n = 30)
	1-6. Feeling interested in learning together	10 (33.33%)
	1-7. Feeling a sense of belonging to group learning	23 (76.67)
	1-8. Reacting to positive feelings to using emojis and emoticons	10 (33.33%)
2. Being restrained participating in group learning by negative feelings	2-1. Feeling frustrated with uncertainty and ambiguity	6 (20.00%)
	2-2. Feeling bored with a given learning pattern	5 (16.67%)
	2-3. Feeling anxious to be required to complete necessary tasks	2 (6.67%)
	2-4. Feeling considerate to instructors and older peers	9 (30.00%)
3. Managing negative feelings by adopting Buddhist teachings		28 (93.33%)

Theme 1. Enhancing group learning through positive feelings

The first theme shows the positive feelings that were demonstrated by the learner participants when participating in group work. Although the learning activities provided in the three courses are dominated by individual tasks and the learners appeared to focus on the completion of the task at an individual level, as demonstrated by cognitive engagement, most learners responded that they were mostly emotionally engaged in a sense of belonging by participating in group learning. Other relevant feelings were feeling good with doing projects with others; feeling happy with group work; and, feeling interested with group learning. However, some learners appeared to have positive feelings when undertaking individual-driven tasks. They reported that they felt joyful when watching video clips, felt comfortable with learning online, and felt thankful to instructors and guest speakers. With a sense of belonging to group learning, this feeling enabled interactions among Thai learners allowing them to continue working collaboratively with peers.

For *Feeling good doing group projects with others*, 11 learners (36.67%) felt good when they participated in group projects with peers. They liked to work with peers with facilitation from the instructors. In doing a group project, “I feel good, as I’m able to widen my worldview by doing a [group] project with peers and compete with other groups” (Learner 27/Course 3). Learner11/Course 2 further mentioned that he felt good when he shared knowledge with locals via a group project, “This course has a project that requires learners to work with community, so we know what’s going on with that community... This is why I feel good to take this course and I want to share knowledge with others”. Although the learners felt good with working with other group members, they also felt good at sharing with others in the community the issues that they worked on with their peers.

For *Feeling interested in group learning*, 10 learners (33.33%) had a feeling of being interested in group activities. This view is exemplified by Learner 6/Course 2, “I like learning with peers through group learning rather than learning [by myself] from texts such as theories. I will feel more interested if I have a chance to collaboratively work with peers”. It appeared that learners were likely to gain knowledge by participating in group learning through sharing and learning with peers. For example, one learner stated: “I love sharing all aspects of this course with peers, as I’m so into it. I also think that group learning is useful for us because it can help provide a better understanding” (Learner 24/Course 3).

For *Feeling a sense of belonging to group learning*, 23 learners (76.67) reported that learning with peers could enhance a feeling of a sense of belonging. Two learners’ statements implied that there were three key aspects of group learning: group activities, learner-learner

interactions, and learner-instructor interactions. Examples of evidence are shown in the following quotes.

I have a sense of belonging when undertaking this course [Philosophy of Sufficiency Economy]. If there's only me without peers, the course could not be a complete subject, as we have to collaboratively work with others to complete group tasks. So, I feel connected to them. (Learner 5/Course 2)

As I have to work with peers and an instructor, I feel that I belong to this course [Philosophy of Sufficiency Economy]. It's impossible to only have a course without learners and an instructor, isn't it? The instructor encourages us to work together to complete the tasks by taking the role of facilitating collaborative learning, whereas peers make me feel as part of learning. (Learner 8/Course 2)

Theme 2. Being restrained participating in group learning by negative feelings

The second theme portrays how the learner participants showed their negative feelings generated by uncertain and ambiguous learning activities, a boring learning pattern, and being forced to complete given tasks. The learners reported that they restrained these feelings by adopting Buddhist teachings, as they believed that the Buddhist cultural values such as 'staying calm' and 'letting go' could allow them to continue communicating and interacting with others.

For *Feeling frustrated with uncertainty and ambiguity*, six learners (20.00%) found that during the MOOC courses, they felt frustrated with uncertain and ambiguous course content, which made it difficult for learners to demonstrate their learning performance effectively. It is evidenced in the following quote.

I personally think that the course content is difficult, especially from the parts that are unclear and ambiguous. It seems that no one can help to have a clearer and better understanding. It then causes some learners [including me] to have a feeling of being frustrated and could lead them to feel that they don't want to continue learning. (Learner 13/Course 2)

For *Feeling considerate to instructors and older peers*, nine learners (30.00%) reported that they showed hesitation to communicate, interact, and collaborate with instructors and older peers when they were being considerate. Throughout this case, feeling considerate could be exemplified as learners did not want to bring instructors and older peers to any discomfort on their behalf by asking a lot of questions, causing them problems, wasting their time, or offering too easy answers. Learner 1/Course 2 pointed out about a feeling of being considerate to an instructor, “As I feel considerate, when dealing with an instructor, I hesitate to ask for help, as he's older than me, and he knows better than me”. Learner 18/Course 3 mentioned about her consideration with working with older peers, “When working with older peers, we have to be considerate”. Overall, feeling too considerate towards seniors seemed to be an obstacle in group learning, as it seemed to hinder the opportunity to communicate, interact, and collaborate with them.

Theme 3. Managing negative feelings

The third theme shows how the learner participants dealt with negative feelings through various Buddhist cultural values. 28 learners (93.33%) chose to use Buddhist teachings to deal with their negative feelings. Examples of Buddhist teachings used by the learners in this study were letting go, staying calm, thinking positively, and restraining

showing negative feeling. For *letting go*, three learners kept telling themselves when they dealt with negative feelings they just let them go: “I told myself to let it go when I got angry with something while I was taking this course [Philosophy of Sufficiency Economy]” (Learner 12/Course 2).

Staying calm was another way that nine learners adopted to cool down themselves. They believed that adopting this Buddhist cultural value could help them develop positive feelings towards others. They exemplified, “I'm keeping this feeling for a while. After that, I share with peers this feeling. We're then back to work together once peers understand” (Learner 3/Course 2); and “I try to calm my feeling down by seeking causes and try to understand peers more, so that I can continue to work together with them” (Learner 10/Course 2). From these statements, it appeared to be an effective strategy to pause negative feelings. Other nine learners used other Buddhist approaches (e.g., meditation, the law of karma, and reading basic Buddhist teachings) to calm themselves down, as exemplified in the following quotes.

To cool down my negative feelings, I'm trying to meditate, as we can't tell people what they can do or what they can't do. I'm also trying to think about what comes around goes around. This means that in the future, something bad will happen to them if they do bad things. But if they do good things now, in the future they're going to get good things in return. (Learner 7/Course 2)

I firstly cool down myself by doing meditation. When my mood is better, I will interact with peers and an instructor. In addition, I've read through a mobile phone the basic Buddhist teachings. This practice will help me get rid of a negative feeling. (Learner 28/Course 1)

Four learners managed their negative feelings by *having positive thinking*. They tried to value themselves and admire others. It was evidenced, “I have to think positively when engaging with others. When a negative feeling occurs, I keep telling myself that it’s going to be okay because we need to interact and communicate more until we finish this course”. (Learner 8/Course 2). Learner 25/Course 3 noted that he needed to change his negative feeling to be positive, “I’m trying to tell myself that a negative feeling is from my own thinking. I need to change and win my attitude”. Overall, the learners who appeared to focus on the good in learning and others were likely to emotionally engage more when participating in group learning. In addition, when the learners had positive thinking, they seemed to have the above-mentioned positive feelings, which were needed for them to communicate, interact, and collaborate with others.

Seven learners *restrained showing the negative feelings to others*. The reasons why they avoided showing the above feelings vary. To continue working with peers, “I sometimes have a negative feeling such as a feeling like not being okay when working with other group members. I prefer not to express this feeling, because I still need to communicate and interact with them” (Learner 30)/Course 1). Learner 28/Course 1 mentioned why she did not show her negative feeling to an instructor, “I choose not to reveal a negative feeling, as I don't want him [instructor] to feel bad”. Overall, the learners preferred to regulate their negative feelings, as they did not want to interrupt interactions with others. However, being restrained to express negative feelings could lead learners to a lack of learning motivation unless they showed what they really felt for others.

In conclusion, the responses of the learners to the dimension of emotional engagement indicated that the learners' positive and negative feelings in this study appeared to either enhance or decrease the quality of group communication, interaction, and collaboration. In terms of positive feelings, the learner participants mostly experienced a sense of belonging to group learning, as they found that the group activities, learner-learner interactions, and learner-instructor interactions were likely to enhance their group learning. This feeling appeared to share a group learning characteristic with another feeling of being good when the learners valued the quality of in-group interactions among peers and instructors and out-of-group interactions with community members. In addition, a feeling of a sense of belonging was believed to help trigger the other positive feelings (i.e., feeling happiness and feeling interest), as these positive feelings were generated through the group learning activities. However, all the positive feelings appeared to be related to external factors such as tasks, materials, and others, including peers, instructors, and guest speakers. There was no evidence that the positive feelings intrinsically motivated them for learning.

On the other hand, the negative feeling of being considerate to older peers and instructors appeared to decrease the quality of the learners' performance in group learning, whereas the other feelings such as being frustrated with uncertainty and ambiguity seemed to influence the engagement with others less, as these feelings were related to the participation in individual tasks. However, like the positive feelings, the negative feelings also appeared to be highly influenced by external factors such as tasks and others, including peers and instructors. There was no evidence that the negative feelings intrinsically motivated the learners for learning. Interestingly, the learners demonstrated that they reacted to the

negative feelings using Buddhist cultural values, which were considered distinctive in Thai culture. They appeared to use various Buddhist teachings (i.e., staying calm, letting go, having positive thinking, and restraining to show negative feelings) to manage these feelings. Further investigation as to why Thai learners incorporate Buddhist teachings to manage their feelings while undertaking MOOCs is undertaken in the discussion chapter.

5.2.4 Social engagement dimension

In the literature chapter, social engagement refers to collaborative learning: Instructors who promote collaborative learning with social engagement are able to provide an opportunity for students to collectively acquire new ideas and values from peers from different backgrounds (Mittelmeier et al., 2018). It also refers to a sense of belonging to a learning community as an outcome of collaborative learning and it further leads students to socially engage with peers and instructors, and deeply engage in learning. Masika and Jones (2016) defined it as “a sense of belonging as students’ sense of being accepted, valued, included and encouraged by teachers and peers, and feeling that they are an important part of the life and activity of the classroom” (p. 138). Within the learning process, socially engaged activities in online learning are inclusive of reactions, posts, comments, sharing among learners, and instructor guidance as facilitators. In a collectivistic culture, it is argued that learners’ social engagement is higher if they create their own informal discussion groups such as using social media based on their geographical locations, languages, and professional disciplines for further discussing their assignments and tasks (Nkuyubwatsi, 2014), which is consistent with the findings in this study.

Table 5.4 shows the results of data analysis based on the three phases of thematic analysis of how the learner participants (n = 30) perceived their social engagement in this study.

Table 5.4: Learners' social engagement

Themes	Sub-themes	Learners (n = 30)
1. Enhancing collaborative learning via social media and discussion forums	1-1. Debating ideas among small group members via social media community	28 (93.33%)
	1-2. Solving learning problems via discussion forums	20 (66.67%)
	1-3. Receiving immediate feedback via social media	4 (13.33%)
2. Developing mutual relationships with others via social media	2-1. Using small talks to trigger group discussion via group chat on Facebook and Line community	4 (13.33%)
	2-2. Sending greetings to others via group/private chat on Facebook and Line community	10 (33.33%)
	2-3. Keeping in touch with others via Facebook and Line community	9 (30.00%)
3. Improving a sense of community belonging and mutual understanding	3-1. Understanding peers' different backgrounds	21 (70.00%)
	3-2. Restraining discussing peers' different backgrounds	4 (13.33%)
	3-3. Respecting peers' different backgrounds	5 (16.67%)

Theme 1. Enhancing collaborative learning via social media and discussion forums

The first theme describes how the learner participants collaboratively worked with others through communicating and interacting among them via social media and discussion forums. Most learners appeared to use social media as a primary tool to enhance debate on ideas, whereas some learners perceived that receiving immediate feedback via social media from the instructors to solve learning problems seemed to promote group learning with others.

For *Debating ideas among small group members via social media community*, 21 learners (93.33%) found it very useful and convenient, especially when they had to discuss

group assignments via social media, such as the Facebook and Line communities. When there were many ideas to discuss in a group, Learner 19/Course 3 stated, “In case we are likely to have different ideas, we will select the idea that most group members agree to it through a debate via a group chat in Line community”. In order to facilitate a group debate, the group moderator, performed by a learner, played an important role in selecting the best ideas from both pro- and anti-peers. It was evidenced, “First of all, we need to listen to everyone who is given the task to study further. Then, we discuss what we are given to do through a moderator who facilitates a group discussion on either Facebook or Line based on the majority preference of group members to select the best idea” (Learner 28/Course 1). Overall, using social media communities such as Facebook and Line seemed to be an effective communication strategy for learners to engage in a debate to choose the best idea, as these informal learning communities were created on the basis of their needs and preferences.

For *Solving learning problems via discussion forums*, 20 learners (66.67%) perceived that the forums were a useful communication tool for them to find a solution to group tasks. Learner 5/Course 2 mentioned, “We divide it into a smaller task, so every group member can search for more information from the internet. At the end, everyone gets together and shares what they found with peers to complete the assigned task [on the forum]”, whereas some learning problems could be resolved by posting questions and seeking peer suggestions in the discussion forums. This is evidenced by the following quote.

A discussion forum, it's important, as it provides an opportunity for learners to collaboratively work with others. I post questions about what I don't understand to

seek comments or suggestions. I also read posts from others to obtain more information to solve group works. (Learner 2/Course 2)

In addition, two learners perceived that the discussion forums were useful to build relationships with others. Learning online, “A discussion forum is a perfect place to build relationships with others, because we don't have a chance to meet peers face-to-face” (Learner 11/Course 2). Yet, out of the 30, four learners pointed out that they perceived themselves as ‘lurkers’ in the discussion forums. They said that they preferred to read others’ posts and comments rather than post questions in the forums, and they were not confident to either post or provide comments for others. As one participant said, “I've never asked any questions in a discussion forum, because I'm pretty shy to share my views in public with others. I'd rather read because I don't know what to post” (Learner 29/Course 1). Learner 3/Course 2 also perceived himself as a passive learner: “I prefer to read because I think that I don't have enough experience to share with others. I think I'm a passive learner”.

Interestingly, two learners revealed that they preferred to communicate, interact, and collaborate with peers and instructors using the Facebook course webpages. The reason is that, “I rarely use a discussion forum. It's because the course provides the Facebook's webpage as a channel to collaboratively work with others. The Facebook course webpage is also more convenient than a discussion forum” (Learner 1/Course 2).

Most learners perceived that the discussion forums appeared to facilitate collaborative learning, as the forums helped the learners build relationships with others resulting in further collective communication and interaction.

Theme 2. Developing mutual relationships with others via social media

The second theme portrays how the learner participants used social media to improve mutual relationships while communicating, interacting, and collaborating with others in a MOOC learning environment. In social media the learners seemed to use various strategies such as using small talk and sending greetings to build and maintain relationships with others. These strategies appeared to be effective in improving social engagement.

For *Sending greetings to others via group/private chat on Facebook and Line community*, 10 learners (33.33%) reported that they developed their relationships with others by sending greetings to others via the Facebook and Line communities using the features of either group chat or private chat. It seemed that building relationships with others through social media community could help the learners launch a positive collaboration with peers to complete the group tasks successfully. For group chat, three learners noted that sending greetings is a good trigger to start a conversation with others. This is evidenced below:

I usually ask for social media from peers such as Facebook or Line to use it to communicate and interact with them when doing group work. Then, we form a group chat. After that, I send greetings to peers to start a conversation before continuing to discuss group activities. (Learner 27/Course 3)

Six learners preferred to send greetings to others via private chat on Facebook or Line. They said that communicating this way allowed them to know more about peers, particularly their lifestyles. It also helped sound out what peers thought about working together. An example of this view is illustrated in the following quote.

We have to initiate building relationships with others by sending greetings via a private chat. Topics should be something about learning or what we share common with. It helps us have a better understanding or share ideas with others. Communicating through a private chat often helps us to know their personal characteristics, which are good for making decisions to continue working with them. It's because they can contribute to group activities. (Learner 16/Course 3)

For *Keeping in touch with others via Facebook and Line community*, nine learners (30.00%) used social media such as Facebook and Line community to maintain relationships during and after the courses. For example, “We will sustain our relationships via Facebook or Line, as it's a convenient communication, and we are all friends of Facebook or Line community” (Learner 28/Course 1). Learner 13/Course 2 further mentioned that she used a video call feature of social media to communicate with others, as she felt more like a face-to-face conversation. She stated: “We continue communicating with each other via Line or Facebook after completing this course [Philosophy of Sufficiency Economy]. We can also use a video call feature to see peers' facial expressions and feelings”. Overall, Thai learners were likely to make connections with peer students in various ways using social media.

Theme 3. Improving a sense of community belonging and mutual understanding

The last theme deals with how the learner participants improved a sense of community belonging and mutual understanding with those who have different backgrounds when undertaking MOOC courses. There are three sub-themes which emerged from the analysis: 1) Understanding peers' different backgrounds, 2) Restraining discussing peers' different backgrounds, and 3) Respecting peers' different backgrounds. This theme was believed to help enhance learners' interaction, communication, and collaboration.

For *Understanding peers' different backgrounds*, 21 learners (70.00%) stated that they needed to understand the differences among each other to improve mutual relationships and understandings with peers. A learner indicated that he valued building good relationships with others as exemplified in the following quote.

We need to understand each other and know what other people like or dislike, as we come from different regions, especially those from the southern part of Thailand who are Muslims. We don't want them to feel isolated, so we invite them to join our group and establish good relationships with them. We may have different ideas when we work together. (Learner 27/Course 3)

Of 21, nine learners (30.00%) indicated that recognising personal differences would improve the ability to co-construct understanding together. A learner mentioned how he accepted the views of others in the following quote:

I think we need to develop mutual understanding, including a change of attitude. We need to accept the way they believe, as we can't change them and it's also difficult to change our beliefs. I think it's universal for everyone to know and reconcile. (Learner 9/Course 2)

For *Restraining discussing peers' different backgrounds*, four learners (13.33%) revealed that when they were socially engaged with others, they needed to avoid talking about different backgrounds with others. They believed that such a strategy would help prevent conflicts; for example: "Since everyone has different backgrounds, I avoid talking to peers about personal things that can lead to argument. I'm just concerned about studying" (Learner 5/Course 2).

For *Respecting peers' different backgrounds*, five learners (16.67%) showed respect for others' backgrounds when they interacted and collaborated with them. They were likely to accept and pay respect more about the different views by focusing more on fairness and the rights of others. Learner 30/Course 1 reported, "I think that everyone is equal. We need to respect their rights. We also don't discriminate against those who do not share with us the same views. For me, I don't take this point into consideration". Overall, taking peers' different backgrounds into account in social engagement with others in the learning environment of MOOCs appeared to help strengthen a sense of learning community and increase the opportunity to build mutual understanding.

To summarise, from the analysis of social engagement, it seemed that the learners preferred to use social media such as Facebook and Line, for group discussions and problem-solving learning, as well as building relationships with others. Specifically, the learners preferred to send the greetings to peers via private chat, because they thought that it might offer them more chances to get to know peers better, which seemed to lead to group activities. The learners also tended to improve a sense of community belonging and mutual understanding by understanding, respecting, and restraining discussing peers' different backgrounds. Through these activities, the learners appeared to practise de-individuation, which means being more concerned with others than with themselves. It may then be influenced in some way by Thai culture and be the predominance of Buddhist culture with the personal differences. This view will be further explored in the discussion chapter.

5.3 Instructors' improvement of learner engagement dimensions

The analysis of the collected data and its findings presented in this section responds to the second research sub-questions: How do Thai instructors determine learner engagement dimensions within MOOCs, and how do they embed Thai cultural dimensions in their teaching practices? This section consists of four sub-sections: behavioural engagement dimension (5.3.1), cognitive engagement dimension (5.3.2), emotional engagement dimension (5.3.3), and social engagement dimension (5.3.4).

5.3.1 Behavioural engagement dimension

For behavioural engagement, the instructors were asked to respond to how they encouraged learners to spend time and effort with peers in their learning to complete the assigned tasks. They were also asked to demonstrate how learners could be encouraged to behaviourally engage in group learning through various forms of activities and projects. From the analysis, there were two themes found to be related to this engagement dimension, as shown in Table 5.5.

Table 5.5: Instructors' improvement of behavioural engagement

Themes	Sub-themes
1. Promoting group learning and self-learning	1-1. Facilitating learners to spend time and effort with peers in group learning
	1-2. Encouraging learners to become self-learners
2. Designing learning activities to support group participation	2-1. Designing small group projects for learners to participate
	2-2. Providing learners with support and guidance on difficult tasks via Line community

Theme 1. Promoting group learning and self-learning

This theme shows how the instructors promoted group learning for learners by showing the importance of spending time and effort on completing group tasks. Although the focus was on completing group tasks, the instructors also encouraged learners to become self-learners to find additional information made available to learners, as instructors viewed self-learning as an important part of MOOCs learning. With a theoretical connectivist lens, the instructors used group learning to foster interaction and collaboration among learners in order to help them complete group tasks.

For *Facilitating learners to spend time and effort with peers in group learning*, Instructor 1/Course 1 and Instructor 3/Course 3 reported that helping learners focus on spending time and effort together when undertaking MOOC courses could not only make learners successful in their learning, but also provided them with the advantages such as time management to ensure their potential career success. This was evidenced in the following quote.

I show them what benefits learners will get from paying attention to their learning. If they regularly participate in learning activities, they can get many benefits such as higher marks, knowledge, and working with others [for tasks completion]. I try to encourage them to participate in group learning by investing their own time and effort rather than force them to learn. (Instructor 1/Course1)

For *Encouraging learners to become self-learners via obtaining a better understanding from additional learning resources*, two instructors noted that they encouraged learners to gain more information related to the topics in a course from the

additional learning resources provided and suggested by the course instructors. It appeared that the instructors were likely to encourage learners to be autonomous to search for additional information to complete group tasks. Instructor 3/Course 3 mentioned, “I provided students opportunities to take part in various [out-of-class] activities to allow them to further strengthen both soft and hard skills by themselves”.

Theme 2. Designing learning activities to support group participation

The second theme appears significant, as all the instructors indicated that teaching meant for them to provide learners with an opportunity to participate in small group learning. They believed that learning with small group members seemed to inspire each other to engage further in learning activities. In order to facilitate group learning, the instructors focused on how to either foster the involvement of individual learners in small group projects or help solve the problems of group tasks via support and guidance through social media communities. These teaching strategies could help learners interact and collaborate more with peers through group participation.

For *Designing small group projects for learners to participate*, all instructors provided various forms of activities to allow learners to be actively engaged through group projects. Instructor 2/Course 2 designed the group projects that can be performed online or out of class. For group projects performed out of class, the instructors appeared to require learners to form a group of no more than five members, as they might consider this number to be effective for learners to actively perform the tasks. This was evidenced in the following quote.

I design some group projects consisting of five group members to be done online. I also have a big project for them to do out of class at the end of the course. It's an exhibition organised by students on the Royal Projects of King Rama 9, where students have the opportunity to present what they have been assigned to do with peers through many activities such as oral and poster presentation and demonstration. (Instructor 2/Course 2)

Instructor 3/Course 3 further reported that she encouraged learners to integrate skills and knowledge from other courses to complete the group projects. Learners then seemed to be more involved in group projects, as each group member was likely to be capable of and confident in sharing prior or existing knowledge gained from outside the courses with others. Detailed evidence is as follows.

They were assigned to do a group project which they have to use skills and knowledge to do a business. I also encourage them to integrate skills and knowledge they have learned from other courses to do the projects such as marketing strategies, customer service skills, computer skills, and so on. When students have a chance to do a project, they would recall the previous knowledge they learned and they would try to find new knowledge and solutions required to complete the tasks themselves. (Instructor 3/Course 3)

For *Providing learners with support and guidance on difficult tasks via Line community*, Instructor 3/Course 3 helped learners solve learning difficulties by group consultation and guidance using social media community. The instructor also allowed learners to seek guidance on their private issues, as it could be interpreted that private issues could directly contribute to a lack of participation and involvement in learning; for example, "I provide assistance and consultation to students when they need it. It allows them to

communicate with me via Line if they need consultation or have questions to be answered for a better understanding for learning and personal matters” (Instructor 3/Course 3). Overall, helping learners to go through learning and personal difficulties by providing them with immediate feedback and guidance appeared to improve individual development and quality participation with others.

In summary, the responses of the instructors to the dimension of behavioural engagement indicated that the instructors appeared to improve the behavioural participation and involvement of the learners by encouraging them to participate in group learning. They agreed that providing an opportunity for learners to work together in a group of no more than five members could help each member to develop their ability to build relationships with peers and to perform the group tasks. Specifically, the instructors responded that they provided learners with group consultation via social media communities to help them get a clearer understanding of the difficult tasks. The instructors also allowed the learners to discuss their private issues through social media communities. A further discussion about how to enhance group learning or collective-behavioural engagement by taking into account cultural engagement, such as group consultation through social media communities is undertaken in the next chapter.

5.3.2 Cognitive engagement dimension

For cognitive engagement, the instructors were asked to respond to how to improve the learners’ in-depth understanding of complex concepts. The instructors were also asked to demonstrate how they provided an opportunity for learners to collaboratively co-construct

knowledge with peers and how they promoted learners' extrinsic motivation. From the analysis, there were three themes found to be related to this engagement dimension as illustrated in Table 5.6.

Table 5.6: Instructors' improvement of cognitive engagement

Themes	Sub-themes
1. Facilitating learners' understanding of complex concepts	1-1. Designing quality videos through a storyboard with a production team
	1-2. Giving examples (e.g., news articles and narratives by guest speakers)
2. Encouraging learners to co-constructing knowledge with peers	2-1. Posting questions to lead group discussion in the discussion forums
	2-2. Helping learners who restrain themselves to share opinions and ideas with peers
3. Enhancing learners' extrinsic motivation	3-1. Encouraging learners to exert the effort through extrinsic motivation
	3-2. Providing immediate feedback to reflect learners' learning capabilities

Theme 1. Facilitating learners' understanding of complex concepts

The first theme presents how the instructors helped improve learners' understanding of complex concepts and ideas in the courses. It appeared that the instructors improved the comprehension of the learners regarding challenging concepts and ideas through designing quality video clips. Presenting examples relevant to the courses for a deeper understanding of the challenging core concepts in the courses was also adopted by the instructors. It is believed that when learners have a better understanding of complex concepts, they are able to work on group tasks with peers more collaboratively.

For *Designing quality videos through a storyboard with a production team*, Instructor 1/Course 1 noted that she and the production team carefully designed and developed the

course [Economics for Happy Living] by considering the steps of how to make good quality videos. This is because producing videos that contain complex theories and concepts to be interesting for learners is a challenge. She explained the steps taken to make the quality video clips below.

We first need to interpret the learning content with many theories and concepts through a storyboard of how the videos are made. I think this is the most difficult and challenging process of providing learning activities in MOOC learning to make theories or concepts easy for students to understand. For a process of designing a storyboard, we need to work collaboratively between a course instructor and a production team to plan instruction, lessons, and activities in order to create the best course for learners to learn with fun from complex concepts and ideas. In addition, we need a professional moderator and experienced guest speakers to make the videos good quality. From what I have presented, the video production is very important to cover all of the above aspects. It should not be only an interview between moderator and guest speaker, but we need to pursue what we are doing in a storyboard. (Instructor 1/Course 1)

She further added that the expected learning outcomes of students in five domains mentioned in the Thai qualification framework (TQF)⁴ for higher education needed to be taken into consideration. She stated, “At the same time, we need to take the TQF learning domain of this course into consideration, such as course purposes, learning objectives, and learning outcomes, to connect with learning achievement” (Instructor 1/Course 1). Overall, the instructors appeared to promote the learners' comprehension of the challenging theories

⁴ According to Charupash (2019), “TQF focuses on students’ attainment in five aspects of learning outcomes as follows: 1. Ethics and Morals, 2. Knowledge, 3. Cognitive Skills, 4. Interpersonal Skills and Responsibility and 5. Numerical, Communication and Information Technology Skills), (p.43).

and concepts by creating quality video clips that inspire learners to gain information from complex concepts and ideas for greater learning outcomes with fun.

For *Giving examples (e.g., news articles and narratives by guest speakers)*, the instructors strengthened the comprehension of complex concepts and ideas by giving learners examples. Instructor 3/Course 3 mentioned, “I gave them examples or told a story with situations related to the unclear concepts” (Instructor 3/Course 3), whereas Instructor 1/Course 1 provided learners with examples of the challenging concepts through news and guest speakers as exemplified in the following quote.

For the Economics for Happy Living, this course is quite complicated because it explores diverse theories. We try to provide students with examples via news about current phenomena or situations. For the Entrepreneurship in 21st Century course, learners need to first learn about concepts in order to know what are required in this course, what the goals are, and what benefits learners can get. I usually give students the opportunity to gain a better understanding through examples by inviting speakers to share experiences of successful business.

Overall, the instructors sought to improve the deeper understanding of the complex concepts by providing the learners with an opportunity to improve awareness through current events such as news and guest speakers with actual experience of the situation.

Theme 2. Encouraging learners to co-constructing knowledge with peers

The second theme portrays how the instructors provided the learners and their peers with the opportunities to construct knowledge together. Most instructors responded that they prioritised group learning through pair and group assignments in order for learners to

effectively co-construct knowledge. In order to help learners maximise the experience of group learning, the instructors either facilitated a group discussion or offered an opportunity for learners to collaboratively work together through small group learning activities.

For *Posting questions to lead group discussion in the discussion forums*, Instructor 1/Course 1 reported that she tried to start a conversation between learners and peers by asking them to exchange thoughts and co-construct knowledge related to the learning activities in a discussion forum. She further claimed that learners' participation in the discussion forum remained limited:

For a discussion forum, I usually post questions to encourage students to respond, as they are reluctant to start a discussion in this communication tool. I encourage them to share ideas and views with friends when I post. However, from my observation, most university students are unlikely to either post a question or a comment in a discussion forum.

It could be inferred that while the courses offered the discussion forums as a primary communication tool for learners to seek a deeper understanding of peer-related tasks, it appeared that learners who were university students were unlikely to use or engage in the discussion forums to work together to solve the difficult tasks. This may be because university students perceived that the discussion forums were provided as a public place for all learners or dominated by a few individual learners, which made them feel left out of their interests, needs and preferences, which will be discussed further in the next chapter.

For *Helping learners who restrain themselves to share opinions and ideas with peers*, Instructor 1/Course 1 stated that she offered small group activities for learners to allow each

group member to share ideas and thoughts with peers. This teaching practice seemed to benefit those who restrained themselves from sharing their thoughts with peers due to cultural values such as consideration and respect for others. This view is illustrated in the following quote.

I would like to return to why university students rarely take part in a group discussion. I think this may be the way Thai students behave that they don't want to share ideas and opinions with others in both traditional classrooms and online learning. One explanation for this is that they always display respect or show consideration for others in Thai culture, as it may be awkward to express ideas with others in a public space. It seems that students prefer to work with peers via smaller group assignments, as they may feel more comfortable to share thoughts and ideas. I then provide them with a small group of learning to suit their needs. (Instructor 1/Course 1)

The above statement could be interpreted that the instructors promoted a more friendly and comfortable learning environment in order to allow the learners to focus more on sharing opinions and ideas than taking serious consideration and respect into consideration. In particular, the instructors believed that providing learners with an opportunity to collaborate with peers through small group activities would help learners focus on further understanding of the tasks and foster mutual relationships, which may help minimise the need to build serious respect and consideration for others.

Theme 3. Promoting extrinsic motivation to learners

The last theme shows how instructors promoted extrinsic motivation for learners by encouraging learners to spend time and effort on learning for future use and providing them with immediate feedback on learning performance.

For *Encouraging learners to exert the effort through extrinsic motivation (e.g., obtaining job promotion certificates and potential study credits)*, two instructors highlighted that they encouraged learners to gain multiple benefits in future such as future study and job opportunities:

I encourage students to be confident in taking this course by showing them the benefits they can receive when they spend time and effort on learning. Not only can they receive a certificate, they can also use credits to pursue their further study in the future. They can also use knowledge to apply in their work or gain additional marks if they study this course in a traditional mode at the same time. This can be regarded as a reward for self-learners. (Instructor 2/Course 2)

For *Providing immediate feedback to reflect learners' learning capabilities*, all instructors reported that they offered feedback to learners to help them perceive their learning skills in the completion of their tasks. For example, Instructor 2/Course 2 mentioned, "I usually try to give my students immediate feedback after submitting the tasks. It allows them to know their learning capability as well as their good or weak points" (Instructor 2/Course 2).

In conclusion, the instructors tended to provide different methods for learners to help develop their comprehension of complex concepts and to encourage them to co-construct knowledge with peers. The main strategies offered by the instructors included helping learners who restrain themselves to share opinions and ideas with peers and encouraging learners to invest their efforts through using extrinsic motivation. With specific reference to helping learners who restrain themselves from sharing opinions and ideas with peers, the instructors seemed to assign learners to work together in small group

activities, as this learning strategy could help Thai learners display respect and consideration for others and yet have more opportunities to develop peer-to-peer relationships effectively by exchanging opinions and ideas. It could be inferred that while co-constructing knowledge with peers, the Thai learners tended to be relationship-driven. It is therefore important for instructors to help learners demonstrate adequate respect and consideration for others through small group activities, which are considered relational engagement, and will be further investigated in the next chapter. As a second strategy to encourage learners to invest in effort through extrinsic motivation, the instructors motivated learners to spend time and effort learning for future study and employment opportunities. This may be linked to a long-term oriented cultural aspect that is centred on the future. Although Thai people are categorised as normative by Hofstede's six cultural dimensions (Hofstede, 2017a) with the focus on more current fulfilment in their lives (Hofstede, 2017b), it is interesting to further investigate why the instructors encouraged learners to spend time and effort in learning for their future lives, such as for job promotion certificates and potential study credits, which is considered to be long-term oriented motivation.

5.3.3 Emotional engagement dimension

For emotional engagement, the instructors were asked to respond to how they designed teaching activities to promote learners' positive feelings when undertaking the MOOC courses, as well as how they encouraged learners to express their feelings while interacting and collaborating with peers. The instructors were also asked to demonstrate how

they helped the learners to cope with negative feelings. From the analysis, there were three themes found to be related to this engagement dimension as shown in Table 5.7.

Table 5.7: Instructors' improvement of emotional engagement

Themes	Sub-themes
1. Informing learners on where to express feelings	1-1. Motivating learners to use the course evaluation forms to express how satisfied they were with the course offerings
	1-2. Encouraging learners to use emoticons and Likes to reflect their feelings via the Facebook course webpages
	1-3. Urging learners to take into account peers' feelings while expressing feelings
2. Promoting learners' positive feelings	2-1. Encouraging learners to improve positive feelings through group chat
	2-2. Improving learners' feeling of belonging to learning community
3. Helping learners deal with negative feelings	3-1. Explaining why learners needed to minimise negative feelings
	3-2. Showing learners how important Buddhist teachings were to manage negative feelings

Theme 1. Informing learners on where to express feelings

The first theme explains how the instructors guided learners on how and where to demonstrate how positive or negative they felt when taking part in the courses. The course evaluation forms (e.g., How did you feel when taking this course? and Did you enjoy working as part of a group?) appeared to be the first place where learners were able to express how satisfied they felt with the course offerings, including teaching and learning experiences. The instructors also claimed that they encouraged learners to share feelings with peers on the submitted tasks or posts and comments via the provided Facebook course webpages. However, since learners were likely to openly express their feelings on the course webpages, the instructors appeared to advise them to conduct themselves appropriately to avoid harming peers' feelings.

For Encouraging learners to use emoticons and Likes to reflect their feelings via the Facebook course webpages, two instructors encouraged learners to communicate and interact with peers on the provided course webpages on Facebook, as learners appeared to be comfortable to use them to share their feelings and emotions with peers. Instructor 1/Course 1 stated, “Students are able to express their feelings to others [peers] via a course webpage I provided. When they use different emoticons, including hitting the likes on posts or comments from others [peers] as suggested, they can reveal their feelings at the time”. Instructor 2/Course 2 also mentioned that a Facebook course webpage was offered to allow learners to express either positive or negative feelings about the tasks presented, “Learners can demonstrate their feelings or reactions to the tasks submitted via the use of emoticons that reflect their feelings. For example, they can use the emoticons to demonstrate their joy, approval, support, surprise, or sadness”. Overall, using emoticons and Likes via the Facebook course webpages seemed to be another important place where instructors could encourage learners to convey either positive or negative feelings. With specific regard to expressing negative feelings with peers, one instructor told the learners that such feelings should be taken into consideration as demonstrated in the following sub-theme.

For Urging learners to take into account peers’ feelings while expressing feelings, Instructor 3/Course 3 reported that she encouraged learners to consider others’ feelings when communicating and interacting with peers in her course [Entrepreneurship in 21st Century]. This view appeared to be an important task for instructors not to neglect encouraging learners to recognise peers’ emotions, as emotions tended to play an important role in either increasing

or decreasing social interactions or interpersonal relationships, which could influence learning performance and outcomes of learners. It was evidenced in the following quote.

I ask students to be honest to themselves and to their peers, but it must base on ‘other people’s feelings’ and manners. I also tell them about how to react and communicate professionally when working with others. In addition, I remind them about cultural differences when working with others. (Instructor 3/Course 3)

Theme 2. Promoting learners’ positive feelings

The second theme describes how the instructors took learners’ positive feelings of interest, enjoyment, and happiness into consideration when designing or planning learning activities. Positive feelings appeared to have a propensity to help learners interact and collaborate more with peers, resulting in better learning outcomes. The instructors appeared to promote the positive feelings above for learners through encouraging learners to further communicate and interact with peers through group chat and improving learners’ feeling of a sense of belonging to group learning.

For *Encouraging learners to improve positive feelings (e.g., interest, enjoyment, and happiness) through group chat*, Instructor 3/Course 3 indicated that learners seemed to have positive feelings about the instructor's activity-based learning experience when they had the opportunity to discuss it with peers through either instructor-made or student-made group chat, as shown in the following quote.

When students enjoy learning or doing activities, they will learn automatically (more or less). More than 80% mentioned in the evaluation form I taught that they were happy and learned a lot from my class. They also said that they enjoyed small group

learning and doing activities that I assigned to them to further discuss with peers through either a group chat I created, or a private group chat created by students. (Instructor 3/Course 3)

For *Improving learners' feeling of belonging to a learning community*, all instructors noted that developing quality video clips, providing learners with opportunities to participate in group learning activities, and giving constructive feedback appeared to allow learners to feel part of the learning community. For developing quality videos, "Learning via videos can help students link their feelings to a presentation of content through visualisation and hearing. I think students would feel more motivated to learn and have a positive sense of learning via the videos" (Instructor 1/Course 1), whereas Instructor 2/Course 2 stated a sense of belonging via collaborative learning, "I try to improve students' sense of belonging to the course via an exhibit of the philosophy of sufficiency economy, as it allows students to demonstrate a body of knowledge and to collaboratively work together" (Instructor 2/Course 2). For a sense of belonging to the learning community, it was likely to increase with the positive feedback from the instructors, "The tasks that I give students with the opportunity to work together in groups can make them feel a sense of belonging. I usually provide them with further feedback containing consultations or suggestions on these tasks" (Instructor 3/Course 3). Overall, giving learners the opportunity to chat with peers via either public or private group chat seemed to help learners have a positive sense of being part of the learning community.

Theme 3. Helping learners deal with negative feelings

The final theme reveals how the instructors helped learners get over their negative feelings. All instructors responded that they helped learners get through negative feelings by

providing them with the reasons they needed to hold those feelings to a minimum, as these feelings could either hinder their learning or grow as a potential career obstacle. To mitigate negative feelings, one instructor indicated that using Buddhist teachings to calm the feelings seemed to be a way to help learners continue to interact and collaborate with peers. The Buddhist teachings for suppressing negative emotions tended to be learned first by the instructor and then shared with learners.

For *Explaining why learners needed to minimise negative feelings (e.g., anger, boredom, and sadness)*, all instructors stated that providing learners with an overview of how negative feelings played a negative role in affecting either their academic success or potential employment seemed to promote learners' awareness of the problem if the learners continuously let these feelings happen. It was exemplified in the following quote.

Students can't show anger to peers, as there are no any benefits to do that. I also show my students that if they demonstrate a negative feeling or behaviour to others in a real-life situation, how they can deal with others in a workplace in future. So, I believe that providing them with an explanation can help reduce the negative feelings.
(Instructor 2/Course 2)

It could be interpreted as no one could avoid getting negative feelings while undertaking MOOC courses, but it seemed more necessary to find ways to stop or minimise them with the help of the instructors, as the solutions could allow the learners to improve their relationships with peers. One of the solutions suggested by the instructors to deal with the negative feelings is exemplified in the sub-theme below.

For *Showing learners how important Buddhist teachings (e.g., the Noble Eightfold Path) were to manage negative feelings*, two instructors helped learners to deal with negative feelings by adopting Buddhist teachings. Instructor 2/Course 2 indicated that he urged the learners to consider the Noble Eightfold Path as one of the well-known examples of Buddhist teaching to manage their negative feelings, as he had already used it himself. It seemed to be a good solution for learners, because the instructor who not only encountered it himself with the negative feelings, but he and his learners shared the same cultural context of Buddhism backgrounds. It was evidenced in the quote below.

From my experience of using Buddhist teachings to deal with a negative feeling, they are effective for both teaching and administrative work. I usually practise the middle path using the Noble Eightfold Path. I then share and encourage my students to adopt them to control their negative feelings when communicating and interacting with peers. (Instructor 2/Course 2)

In summary, the responses of the instructors suggested that the instructors seemed to give priority to how to enhance the positive feelings of the learners and how to minimise their negative feelings. For positive feelings, all instructors gave priority to fostering the sense of belonging of learners to the learning community. This is because the sense of belonging to the learning community seemed to contribute directly to the quality of group learning, and it seemed to be the result of shared feelings such as interest, enjoyment, and happiness between learners and peers. The instructors also reported that providing learners with examples of where (e.g., Facebook course webpages through the use of emoticons that represent their feelings) and how (e.g., by considering peers' feelings through reminding learners to recognise peers' cultural differences) to demonstrate positive feelings tended to help learners

participate more in group learning tasks and encourage them to interact and collaborate further with peers. For negative feelings, the instructors responded that they appeared to suggest that learners follow Buddhist teachings such as the Noble Eightfold Path to manage negative feelings such as anger, boredom, and sadness. Further exploration into how the Buddhist teachings can be applied in MOOCs learning, especially how to use the Buddhist teachings to mediate negative feelings is needed.

5.3.4 Social engagement dimension

For social engagement, instructors were asked to address how they encouraged learners' social interactions with peers. They were also asked how learners were encouraged to collaborate with peers through various communication tools, particularly with those who were seniors and had personal differences. There were three themes found related to this engagement dimensions as shown in Table 5.8.

Table 5.8: Instructors' improvement of social engagement

Themes	Sub-themes
1. Encouraging learners' social interactions via using various communication tools	1-1. Facilitating quality engagement
	1-2. Encouraging learners to take part in the discussion forums
	1-3. Providing an opportunity for learners to share ideas and opinions with peers via the Facebook course webpages
2. Improving learners' development of mutual relationships with senior peers	2-1. Enhancing group learning by promoting a friendly and relaxed learning environment to improve mutual relationships between learners and senior peers
	2-2. Encouraging learners to seek consultation with senior peers
3. Encouraging learners to take peers' personal differences into consideration	3-1. Asking learners to form group learning based on different backgrounds (e.g., study field and cultural backgrounds)
	3-2. Designing group activities based on religious backgrounds

Theme 1. Encouraging learners' social interactions via using various communication tools

The first theme describes how instructors encouraged learners to develop their social interactions through multiple means of communication. All instructors responded that they used creating group chats in social media communities such as Facebook and Line as an additional communication tools to enhance peer interactions.

For *Facilitating quality engagement*, all instructors encouraged learners to communicate, interact and collaborate with peers through Facebook and Line communities through a group chat feature set up by instructors.

We encourage student to interact and collaborate with peers via social media such as Facebook, Line, Twitter, and Instagram. For group work, a group chat is set up via Facebook or Line, as it is convenient, and most students use it in their daily lives. Communicating and interacting through social media seems to be an effective communication tool for Thai learners. In addition, they can build relationships with peers via a private chat via social media. (Instructor 1/Course 1)

From the above statement, there seemed to be two types of social media community regarding how they were created. The first community was created by the instructors, whereas the second was created by the learners. Such communication tools tended to give learners more opportunities for effective communication as evidenced in the quote below.

I create a Line group where they could talk, give ideas, or communicate anything which are related to the course. For a group work, they could create another Line group which only students are the members of the group. This way when they need me, they would use the Line group I create. But when they don't need me, they use the Line group they create. (Instructor 3/Course 3)

For *Encouraging learners to take part in the discussion forums*, Instructor 1/Course 1 mentioned that participation in the discussion forums was considered a good opportunity for learners to share opinions and ideas with peers through collaborative learning. Interactions between learners in the discussion forums tended to begin with instructors first creating threads that would enable learners to provide feedback or help them further discuss things with peers. Detailed evidence is shown below.

The instructors usually encourage students to communicate and interact with peers via the discussion forums. The sequence of activities in the discussion forums begins with the instructors posting questions about any topics or tasks in the courses, and then encouraging students to give comments. Or students can post their questions, and then peers provide comments.

Instructor 1/Course 1 further mentioned about Thai culture, such as losing face, which restricted the active participation of learners in discussion forums. It was evidenced in the following quote.

While we encourage students to interact and communicate with others through a discussion forum, through this communication tool, they do not seem interested in communicating with peers. It may have to do with Thai culture that Thais are rather shy about sharing ideas and opinions in public or with strangers. They may also not want to lose face if peers express the opposing ideas and opinions, including criticism, against their views.

For *Providing an opportunity for learners to share ideas and opinions with peers via the Facebook course webpages*, two instructors indicated that they developed course webpages on Facebook, which are in addition to the MOOC websites offered on the *ThaiMOOC* platform to allow learner to give comments and suggestions on the submitted

group tasks or other related course activities. Instructor 2/Course 2 provided detailed evidence in the quote below.

I encourage students to use a course webpage on Facebook. The objectives of using it include interacting with others, learning and working together, and searching for previous additional learning materials. That means students can access the course webpage at any time, even if they have completed the course. Students can use this tool to post questions regarding unclear topics or activities. Since we have no authority to run a discussion forum as it was operated by the *ThaiMOOC* platform and we need to sign in at all times to access it, students and an instructor consider it difficult compared to using social media such as Facebook because we can get timely feedback.

Theme 2. Improving learners' interpersonal relationships with senior peers

The second theme highlights how the instructors provided learners with the effective learning activities. All instructors tended to foster interpersonal interactions between learners and senior peers through group learning by promoting a friendly and relaxed learning environment, as seniority seemed to have a major impact on quality learning in Thai culture. Another strategy adopted by instructors to enhance interpersonal relationships was to encourage learners to consult with senior peers on group work.

For *Enhancing group learning by promoting a friendly and relaxed learning environment to improve mutual relationships between learners and senior peers*, all instructors responded that they helped improve group learning between learners and older peers through providing the class with a comfortable and pleasant learning atmosphere, as they believed that this positive learning setting could help learners interact more with each

other to solve learning problems. Instructor 3/Course 3 provided detailed evidence of how to improve learners' interpersonal interactions with senior peers via group learning in the following quotes.

When students have the feeling that the senior peers are friendly and open, they are likely to tell them the truth and facts about their problems, what they don't understand, what they prefer in their learning, and the assistance they need. I then consider this information to plan and manage the class.

For *Encouraging learners to seek consultation with senior peers*, Instructor 3/Course 3 responded that she provided group work activities to allow learners to collaborate with senior peers for better interaction, communication, and collaboration. She noted, "I assign them [students] to work with their seniors to complete the task. I also encouraged them to get some consultation from their seniors through a group discussion via Line. This strategy works well when they are assigned to do a group work". Yet, she did not explicitly note what kind of group activities were offered to enhance the relationships between learners and senior peers.

Overall, this theme highlighted that the instructors tended to strengthen the interpersonal relationships between learners and older peers through group activities by encouraging learners to consult with senior peers on challenging tasks and providing learners with a friendly and relaxed learning environment to promote their mutual relationships, as seniority appeared to influence quality interactions between learners.

Theme 3. Encouraging learners to take peers' different backgrounds into consideration

The final theme reports how the instructors considered students' different backgrounds to improve learners' communication, interaction, and collaboration. All instructors replied that they encouraged learners to embrace peers' diverse backgrounds by creating mutual understanding to form their own group work successfully. It appeared that group composition based on learners' different backgrounds tended to help them complete group activities that were planned by instructors.

For *Asking learners to form group learning based on different backgrounds (e.g., study field and cultural backgrounds)*, all instructors were concerned about the experiences of the learners to boost their social interaction with their peers. They encouraged learners to share their different backgrounds with their peers so they could understand each other and work together without any difficulties (e.g., Instructor 2/Course 2). According to this statement, Instructor 1/Course 1 suggested that encouraging learners to work with peers from different backgrounds might help them have a better understanding of group tasks. This view is illustrated in the following quotes.

We usually encourage students to freely form their own group based on their preferences. Many group activities sometimes need to involve participants from different backgrounds, such as study field and cultural background, since we think they can't solve a better problem if they have the same backgrounds.

Instructor 3/Course 3 further noted that it appeared to improve quality group learning by concentrating on peers' positive points rather than their weak points. She stated, "When it's time for group work, some students have problems working with some of their peers. I

then ask them to look for strengths from each group members and use these strengths to complete the task”. Overall, a group composition focused on taking into account the different backgrounds of learners seemed to be a significant starting point for quality group learning and harmony, as it was seen as a factor in influencing group interactions between learners to complete group tasks.

For *Designing group activities based on religious backgrounds*, Instructor 1/Course 1 reported that she planned her course activities to support learners’ personal differences. She pointed out that when planning learning activities, instructors needed to remove controversial topics that could lead learners to establish any disagreements and misunderstandings between them, because these topics seemed to produce negative group interactions. It was evidenced in the following quote.

We need to take the personal differences into consideration when designing group activities. For example, we may have students who are Buddhist, Christian, and Muslim in a course. We need to plan a learning content carefully that shouldn’t affect others or create an argument between students. We also need to avoid mimicking or endorsing a specific political group. We need to be neutral, as they are very sensitive. (Instructor 1/Course 1)

In summary, the responses on the dimension of social engagement provided by the instructors showed that they tended to improve the social interactions of learners through social media communities such as Facebook and Line by setting group chats for effective communication. This means that they seemed to be confident to communicate with peers via social media communities, as the finding revealed that they tried to avoid losing face when sharing ideas in public or with strangers. In order to enhance group learning experiences, the

instructors appeared to promote interpersonal interactions between peers, particularly senior peers, by promoting a friendly and relaxed learning environment and motivating learners to seek consultation with senior peers to complete the difficult tasks, as seniority appeared to play a major role in affecting quality learning in Thai culture. The instructors also encouraged learners to take peers' different cultural, religious and political backgrounds into consideration when interacting and collaborating with peers. It appeared that Thai learners are more interdependent but less dependent, ranging from setting up group chats on social media communities to promoting interrelationships between learners and senior peers. The need for further investigation is then required in the next chapter.

5.4 Chapter summary

This chapter presented the findings that emerged from the thematic analysis and interpretation of the four learner engagement dimensions, behavioural, cognitive, emotional, and social, that were derived from the semi-structured interviews with Thai learners and instructors. The learner responses to behavioural, cognitive, emotional, and social engagement indicated that their engagement was perceived within a sense of learning community and, in particular, marked by a willingness to seek help and support each other through group learning.

For learners' perceptions, the dimension of behavioural engagement was likely to be more collectivistic than individualistic as they believed that participating in group learning to seek ideas and opinions from others through social media communities assisted their learning. It was evidenced that in the face of difficult tasks such as group assignments,

seeking further interaction and collaboration with others could enable learners to learn more and to complete their tasks.

In relation to the dimension of cognitive engagement, learners were likely to rely on others to solve the problems through various strategies, such as brainstorming to solve problems together, engage in sense making through interactions, and seeking help from instructors. Cognitive engagement of Thai learners appeared to be very social and cultural, or likely to be less independent but more interdependent when undertaking MOOC courses. They also took age and seniority into account when engaging with others by showing respect, social etiquette, and consideration.

With regard to the dimension of emotional engagement, most of the learner participants perceived that a sense of belonging to community learning could lead to positive feelings such as happiness and interest. The learners also demonstrated that they reacted to negative feelings such as frustration, boredom, and anxiety by using Buddhist teachings such as staying calm, letting go, having positive thinking, and restraining negative feelings to manage these feelings.

In terms of social engagement, the learners appeared to use social media communities such as Facebook and Line to enhance collaborative learning through various strategies such as participating in group discussions and problem-solving learning and building relationships with peers. The learners also appeared to strengthen a sense of learning community and shared understanding by taking into account the different backgrounds of peers, as the

learners seemed to be practising de-individualisation, that is being more concerned with others than with themselves.

For instructors' perceptions, in order to improve learner engagement, key responses to behavioural, cognitive, emotional, and social engagement dimensions indicated that the instructors encouraged learners to participate in group learning activities and fostered a sense of belonging of learners to the learning community. For behavioural engagement, it was demonstrated that the learners were encouraged to participate in group learning by providing them with an opportunity to work together in a group of no more than five members based on the needs and preferences of the learners. The instructors also responded that they provided the learners with a group consultation through social media communities either to discuss their private issues or to gain a clearer understanding of difficult tasks.

In respect of cognitive engagement, the instructors responded that they assigned learners to work together in small group activities to co-construct knowledge by providing learners with more opportunities to develop peer-to-peer relationships and by reminding them to show adequate respect and consideration for others rather than be overly respectful and considerate based on seniority of peers. This is because the Thai learners tended to be relationship-driven. The instructors also encouraged learners to make an effort through extrinsic motivation by encouraging them to spend time and effort learning for future study and employment opportunities. This may be linked to a long-term cultural aspect that focuses on the future.

To address the dimension of emotional engagement, the sense of belonging of learners to the learning community became a significant source of positive feelings such as interest, enjoyment, and happiness. The instructors indicated that encouraging the learners to use emoticons to reflect their emotions and reminding them to consider the cultural differences of peers appeared to help the learners engage more in group learning activities and to better communicate with peers and collaborate. The instructors responded that they seemed to indicate learners would adopt Buddhist teachings to handle negative feelings.

In terms of social engagement, the instructors indicated that they enhanced learners' social experiences across social media communities such as Facebook and Line by creating group chats to facilitate group learning. In particular, the instructors enhanced group learning experiences by promoting interpersonal interactions between learners and senior peers by offering a friendly and comfortable learning environment and encouraging learners to seek consultation with senior peers to complete difficult tasks. The instructors also encouraged learners to take peers' diverse cultural, religious, and political backgrounds into account when interacting and collaborating with peers.

Overall, three key themes related to Thai cultural engagement were identified in the analysis from semi-structured one-on-one interview data from 30 students and three instructors. The themes were: (a) a sense of community belonging; (b) a hierarchical but harmonious relationship with seniors; and (c) culturally representative communication and collaboration, which will be discussed in greater detail in the next chapter.

CHAPTER 6: DISCUSSION

6.1 Introduction

This chapter discusses (a) the perceptions of learners about their engagement dimensions, (b) the improvement of the learner engagement dimensions by instructors, and (c) how the learner engagement dimensions were enacted in the MOOCs interaction, communication, and collaboration. Specifically, it further explores the discussion points outlined from the previous chapter in relation to cultural engagement and it proposes a cultural framework as a pedagogical system that leads to authentic learner engagement in the MOOCs development.

The chapter begins with a summary of key findings of the first research sub question of learners' perceptions of their engagement dimensions and how they reflected Thai cultural aspects in their culturally inclusive learning and compares these findings with the current knowledge indicated in the literature (6.2). Next, it discusses the key findings of the second research sub question of the instructors' improvement of learner engagement dimensions and how they embedded Thai cultural aspects in their culturally inclusive teaching practices in conjunction with the learners' perceptions of their engagement (6.3). Then, the chapter discusses cultural engagement for the MOOCs development (6.4) and suggests a new cultural engagement framework to improve authentic learner engagement (6.5). The final section discusses how the learner engagement dimensions were enacted in the MOOCs interaction, communication, and collaboration by presenting the pedagogical implications (6.6).

6.2 Learners' perceptions of their engagement dimensions

This section discusses the four dimensions of learner engagement by articulating appropriate cultural aspects in each dimension. A summary of the key findings of the learners' perceptions of their engagement dimensions and how they reflected Thai cultural features supported by the relevant literature is illustrated in the following table.

Table 6.1: Learners' perceptions of their engagement dimensions and the relevant literature

Dimensions	Key findings	Related literature supporting the cultural engagement of the findings
Behavioural engagement	<ul style="list-style-type: none"> - Made efforts to manage difficult tasks by asking for help from others via social media communities - Participated in group learning via Facebook course webpages by posting questions and participating in group tasks (e.g., projects and assignments) 	<ul style="list-style-type: none"> - Informal discussion groups outside the courses where there is group participation and involvement (Nkuyubwatsi, 2014)
Cognitive engagement	<ul style="list-style-type: none"> - Developed a sense-making interaction with older peers to co-construct knowledge by incorporating socio-cultural relevance into decision-making 	<ul style="list-style-type: none"> - Thai learners are relationship-driven learners who are culturally taught to display respect and courtesy to seniors (Pagram & Pagram, 2006)
Emotional engagement	<ul style="list-style-type: none"> - Restrained negative feelings to participate in collaborative learning and demonstrated the feelings of being considerate towards instructors and older peers - Managed negative feelings by adopting Buddhist teachings such as staying calm, letting go, having positive thinking, and restraining to show negative feelings 	<ul style="list-style-type: none"> - Thai people typically apply Buddhist teachings during their lifetime to different activities in society (Chinnawong, 2007) - This is the reason why they tend to “avoid open conflict because cool-heart can be considered an intelligent social response as well as a commendable act” (Tetiwat & Huff, 2003, p. 240)

Table 6.1 (continued)

Dimensions	Key findings	Related literature supporting the cultural engagement of the findings
Social engagement	<ul style="list-style-type: none"> - Enhanced collaborative learning via social media communities by debating ideas among small group members - Improved a sense of community belonging and mutual understanding through understanding, respecting, and restraining discussing peers' different backgrounds 	<ul style="list-style-type: none"> - Collaborative learning is “a sense of belonging which includes students’ sense of being accepted, valued, included and encouraged by teachers and peers, and feeling that they are an important part of the life and activity of the classroom” (Masika & Jones, 2016, p. 138) - Social engagement refers to the cohesion of a group that prioritises a sense of belonging and identity in an online learning environment over individuality (Fernandes et al., 2017) - Collectivistic students prioritise the goals of a larger group (Arpaci & Baloğlu, 2016; Phonthanukitithaworn & Sellitto, 2016)

According to Table 6.1, the participants’ perceptions of the four engagement dimensions appeared to be supported by the existing literature in relation to cultural engagement, which can be explained/exemplified in the following sub sections.

The learner responses to behavioural, cognitive, emotional, and social engagement indicated that their engagement was perceived within a sense of a learning community, with attention to supporting each other, and with a focus on collectivity over individuality. For behavioural engagement, it was evidenced that asking for help from others via social media communities aimed to support each other to complete the difficult tasks rather than focusing on self-learning. In the cognitive engagement area, the learners described that they solved the problem of uncertainty and ambiguity through brainstorming together and developing a mutual understanding. In terms of emotional engagement, their cultural engagement became explicit when individual learners tended to take care of others by considering their age, and

they minimised individuality for a sense of belonging and community by applying Buddhist teachings. Finally, this cultural engagement enhanced social engagement as it emphasised reconciliation and empathy to improve a sense of community and mutual relationships with others via group/private chat in social media communities.

It can be said that such cultural engagement appeared to play an important role in influencing the four dimensions of learner engagement that need further discussion. As learner engagement is highly interrelated with cultural values and practices, it is then important to look for elements that articulate cultural aspects within each dimension of learner engagement. To respond to this challenge, the cultural features of the four dimensions of learner engagement identified and thematised from the data analysis are further articulated and discussed in comparison with the existing literature: collective-behavioural engagement (6.2.1), relational-cognitive engagement (6.2.2), mediated-emotional engagement (6.2.3), and de-individuated-social engagement (6.2.4).

6.2.1 Collective-behavioural engagement

Behavioural engagement generally refers to the persistence, effort, attention, participation, and involvement of learners in learning activities (Al Mamun et al., 2016; Bryson, 2016; Kahu, 2013), which appears to focus on the learning performance of individual learners. However, this statement does not reflect any Thai cultural features in that learners tended to prioritise group learning and preferred to work with others. As the analysis demonstrated, the collective participation and involvement of learners to complete the tasks such as group projects and assignments through group cohesion seemed to be significantly

linked to cultural engagement. It was exemplified that the participants made efforts to manage difficult tasks by performing collective participation with others via the social media communities, “to get united and connected with others, I use social media communities such as Facebook and Line. I think it’s necessary to interact and collaborate with peers using social media to complete group work when we do not yet understand or find a solution in a group.” (Learner 9/Course 2) and “I feel close to the group and I don't feel lonely interacting with peers. Social media makes it possible for me to build relationships with others.” (Learner 10/Course 2). Evidence is consistent with the argument put forward by Nkuyubwatsi (2014) that, like the participants in this study, those students who have a collectivistic culture tend to establish informal discussion groups outside of courses where collective participation and involvement are needed. In this sense, collective learning is highly related to cultural needs, which explains why the participants’ perception of behavioural engagement was more collective than individualistic. Cultural engagement, such as a sense of community belonging that influences how learners perform their collective-behavioural engagement, is discussed in a later section.

6.2.2 Relational-cognitive engagement

Cognitive engagement refers to an internal investment and effort to construct knowledge (Newmann et al., 1992) and students’ beliefs in their learning capability to perform a particular academic task (Kahu & Nelson, 2018). Yet, the participants found that their perceptions of cognitive engagement were more relationship-driven or relational engagement. The learners showed that they co-created knowledge with others by considering

seniority in terms of the age of colleagues, which shows cultural as well as social behaviour. Indeed, they heavily relied on relationships not only to solve the problems of uncertainty and ambiguity, but also to co-construct knowledge through sensemaking interactions and by brainstorming ideas for solutions ‘together’ via social media communities. Their socio-cultural cognitive engagement was evidenced through their respect for older students. For example, “We need to show the older peers our etiquette by showing my respect through talking to them in a more formal way when it’s time to make a decision together” (Learner 2/Course 2) and “We need to have a different communication strategy when interacting with older peers, as they are older than us. At least, we need to show them our consideration” (Learner 28/Course 1). In fact, learners seemed to incorporate socio-cultural relevance into cognitive problem-solving processes when undertaking Thai MOOCs. Specifically, learners showed that they took age and seniority into consideration when interacting and collaborating with peers and instructors to co-construct knowledge. Furthermore, they demonstrated that they valued such cultural values by showing respect, social etiquette, and consideration. This view was argued by Pagram and Pagram (2006) that Thai learners are *relationship-driven learners* who are culturally taught to show respect and politeness to seniors. Therefore, the cognitive engagement of the participants is highly shaped by socio-cultural values such as age and seniority through their intrinsic perception and practice of interconnectedness and interactions with others, rather than solely through self-investment and effort. This understanding supports renaming cognitive engagement as relational-cognitive engagement with less independence but more interdependence.

6.2.3 Mediated-emotional engagement

Emotional engagement is defined as positive feelings and negative feelings. The positive feelings are seen as the prerequisites of students' participation because students are likely to participate more in a particular learning task (Curran & Standage, 2017), and are seen as a source of learner intrinsic motivation (Hartnett, 2015), whereas the negative feelings seem to diminish the participation of learners, and the motivation to interact, communicate, and collaborate with others. Examples of positive feelings are interest, enjoyment, and happiness (Trowler, 2010), whereas examples of negative feelings are, for example, boredom, anxiety, sadness, and frustration when undertaking MOOCs (D'Mello et al., 2017; Lester, 2013). Yet, learners demonstrated their ability to manage both positive and negative emotions by using Buddhist teachings considered to be distinctive in Thai culture, which indicates that emotional engagement can be culturally mediated. From the analysis, Buddhist teachings that culturally mediated emotional engagement, particularly negative feelings, are inclusive of staying calm, letting go, having positive thinking, and restraining negative feelings. The learners exemplified, "I've read the basic Buddhist teachings on a mobile phone. This practice will help me get rid of a negative feeling" (Learner 28/Course 1) and "I try to calm my feeling down by seeking causes and try to understand peers more, so that I can continue to work together with them" (Learner 10/Course 2). The learners appeared to mediate between negative feelings by remaining calm to improve quality learning with others, whereas positive feelings could be culturally mediated by positive thinking, "I have to think positively when engaging with others. When a negative feeling occurs, I keep telling myself that it's going to be okay because we need to interact and communicate more until we finish

this course” (Learner 8/Course 2). In fact, Thai people usually apply Buddhist teachings in various activities in society during their lifetime (Chinnawong, 2007), which has a great influence on teaching and learning in Thai MOOCs. Such culturally mediated emotional engagement using Buddhist teachings is possible due to Thai’s collectivistic and relational cultural backgrounds, as argued by Tetiwat and Huff (2003). Thai people place a strong emphasis on explicit calmness, and it is inappropriate for them to convey personal feelings such as frustration or anger in public. This is the reason why they tend to “avoid open conflict because a cool-heart can be considered an intelligent social response as well as a commendable act” (Tetiwat & Huff, 2003, p. 240). Therefore, it is legitimate to say that, for learners, emotional engagement is highly culturally mediated by Buddhist teachings, which is consistent with the next theme identified.

6.2.4 De-individuated-social engagement

Pedagogically, social engagement often refers to collaborative learning (Mittelmeier et al., 2018). Research indicates that instructors who promote collaborative learning with social engagement are able to provide an opportunity for students to collectively acquire new ideas and values from peers from different backgrounds (Mittelmeier et al., 2018). This understanding assumes that individual students are fundamentally independent, and when they equally participate in a group project, learning outcomes can be maximised. By contrast, the Thai learners demonstrated that they adopted less individuated or minimised individuation to be more collective for community, which is perceived as authentic collaboration in a collectivistic culture, where a sense of community belonging also occurs.

This is consistent with researchers' understanding of cultural differences, in that the learners from individualistic cultures are more independent, whereas those from collectivistic cultures such as Thailand are more interdependent. For example, Zhu (2011) argued that "in individualistic cultures, people tend to be more direct to speak out, question or be confrontational; whereas in collectivistic cultures, people tend to avoid conflict and use more intermediaries" (p. 15). In other words, the former points to a greater regard for individuality and the latter to a greater respect for authority. According to Hofstede (2011)'s cultural dimension of *power distance*, Thai students with less power may feel anxious or afraid when interacting with senior students (Hofstede, 2011). As noted by Ardichvili et al. (2006), Western students prefer to express ideas or ask questions during learning activities with no or less hesitation, and they prefer to be independent and work on their own projects because they tend to focus on their personal goals rather than the group goals. Thai students, on the other hand, prioritise the goals of a larger group (Arpaci & Baloglu, 2016; Cho & Lee, 2015; Phonthanakitithaworn & Sellitto, 2016). Thus, it is understandable why the participants' social engagement in learning was inclusive of de-individuation, which is to maximise a sense of community belonging.

To summarise, in accordance with the key features of connectivism (i.e., communication, interaction, and collaboration), the participants appeared to use social media as a main communication tool to further interact and engage with others through group projects or assignments. In other words, they relied heavily on relationships or were more relationship-driven to interact and collaborate not only to solve the problem of difficult tasks, but also to co-construct knowledge with others through collective participation such as a

sense of community belonging. Kop and Hill (2008) consistently argued that connectivism seeks to concentrate on the involvement of learners accessing the network's various learning communities to co-construct and share knowledge with others.

6.3 Instructors' improvement of learner engagement dimensions

This section discusses how the cultural engagement of Thai instructors played an important role in improving learner engagement to greater collaborative learning, mutual relationships and understandings, and group learning experience. Three key culture-related areas were identified from the findings that were influenced by Thai culture: (a) a sense of community belonging, (b) a hierarchical but harmonious relationship with seniors, and (c) culturally representative communication and collaboration.

6.3.1 A sense of community belonging

The instructors indicated that in MOOCs learning learners prioritised collectivism over individualism. It was evidenced that a sense of community belonging appeared to play an important role in minimising individuality to improve collaborative learning. Masika and Jones (2016) argued that “collaborative learning is a sense of belonging as students’ sense of being accepted, valued, included and encouraged by teachers and peers, and feeling that they are an important part of the life and activity of the classroom” (p. 138). From the analysis of the findings, all the three instructors responded that they prioritised promoting learners’ positive feelings and reducing their negative feelings. Interestingly, all of them indicated that they had focused on improving learners’ feeling of a sense of belonging and stressing the

importance of using Buddhist teachings to manage negative feelings. For example, “I think students can feel a better sense of belonging to the course ... [when they] collaboratively work together” (Instructor 2). The instructors tended to focus on collectivity over individuality when talking about positive feelings, whereas they were focused more on individuality when referring to negative feelings. Two instructors specifically indicated that they urged learners to use Buddhist teachings (e.g., the Noble Eightfold Path) to manage their negative feelings. Yet the management of negative feelings was for “communicating and interacting with peers” (Instructor 2). In the interview scripts, there was no word to directly indicate individuals’ internal motivation and academic curiosity.

Fundamentally, as the learners highly valued (pre-existing) relationships which are socially and culturally defined, the majority of learners believed that a good relationship is an antecedent of collaborative learning. In their relationship maintenance, it seemed that the learners positively used social media to enhance mutual relationships, as argued by McLoughlin and Lee (2010) that “exploring and integrating social media can help pave the way for participation, community connections, social interaction, and global networking” (p. 38). Evidence appeared to be consistent with the claim put forward by Dreamson et al. (2018) that multi-channelling using communication platforms for one-to-one, one-to-many, and many-to-many communication would help promote diverse engagement and increase a sense of belonging to the learning community. This is because multi-channelling extends the capacity of communication and collaboration to include cultural diversity and needs, thus allowing all learners to create a common collective identity (Dreamson et al., 2018). Evidence also indicated that social engagement via multi-channelling focusses less on

individuality but more on how to develop mutual relationships to improve a sense of community belonging. Fernandes et al. (2017) also argued that social engagement refers to a group's cohesion that a sense of belonging and community is prioritised over individuality in an online learning environment. Therefore, it can be concluded that a sense of community belonging improves greater collaborative learning by reducing individuality and enhancing collective interactions and participation.

6.3.2 A hierarchical but harmonious relationship with seniors

All the instructors claimed that they encouraged learners to communicate, interact, and collaborate with peers using social media, and specifically, they set up a group chat between instructors and students and a private chat between students, in which they believed that the communication tools were helpful in building relationships. It is consistent with Nkuyubwatsi's (2014) argument that students, like learners who enrolled in Thai MOOCs, preferred to set up informal discussion groups outside of courses. Following this argument, the focus of the instructors was on 'harmonious relations with peers' to allow for greater problem solving and sense of community belonging. Luo et al. (2016) argued that "harmonious community relationships reduce uncertainty and generate a more relaxing and comfortable environment that, in turn, facilitates members' sense of belonging to the community" (p. 675), which is consistent with the characteristics of learners.

The instructors were also aware of the cultural characteristics of learners, "[due to its collectivistic culture], that Thais are rather shy about sharing ideas and opinions in public or with strangers. They may also not want to lose face if peers express opposing ideas and

opinions, including criticism, against their views” (Instructor 1). A feeling of losing face may impact students in Asian contexts by not engaging actively in teaching and learning activities like the Western-designed discussion forums. With specific reference to Thailand, although learners prefer to learn in friendly and collaborative learning environments (Gómez-Rey et al., 2016; Hofstede, 2011), they may feel uncomfortable openly contributing and building knowledge through networks and peer interactions. It is suggested that when planning or implementing learning, instructors need to take this Thai cultural value into consideration to ensure that students do not feel embarrassed or lose face when interacting and participating in a discussion (Tetiawat & Huff, 2003). All the instructors also addressed the importance of improving learners’ development of mutual relationships with senior peers by addressing interpersonal interactions between learners and senior peers through group learning.

In addition, the instructors stated that learners were heavily concerned with senior peers, as they showed hesitation to communicate, interact, and collaborate with instructors and older peers. The hesitation and being considerate may be due to experiencing the cultural aspects of high power distance (Hofstede, 2017a), when younger students hesitate or feel considerate to engage with and contribute to online learning activities where there are some senior students involved. This hesitation may result in a state of being disengaged when participating in group activities, such as asking questions and contributing to MOOC discussion forums (Fredricks et al., 2004). Interestingly, the negative feeling of being considerate towards older peers appeared to decrease the quality of the learners’ performance in collaborative learning. As evidenced by data, feeling considerate was likely to lead learners to avoid causing instructors and older peers any discomfort on their behalf by asking too

many questions, causing problems, wasting their time, or providing too simple answers. By contrast, other feelings (i.e., being frustrated with uncertainty and ambiguity, being bored with a given learning pattern, and being anxious with being forced to complete tasks) seemed to influence collective engagement with others less, as these feelings were related to their participation in individual tasks rather than group tasks.

6.3.3 Culturally representative communication and collaboration

The instructors appeared to be less concerned with ‘authentic individual differences’ in terms of learning preferences but more concerned with cultural/religious differences. More critically, in their pedagogical understanding, individuals are regarded as cultural/religious representatives rather than merely as individuals. From this argument, the instructors appeared to believe that the offering of MOOCs in individualistic cultures did not meet the needs of learners in collectivistic cultures, including Thailand. Researchers argue that a socio-cultural viewpoint needs to be reconsidered in the production of MOOCs, as MOOCs can be considered to be instruments of neo-colonialism (Wildavsky, 2015) and Western academic systems (Gunawardena et al., 2003). This means that applying Western learning and teaching practices to establish MOOCs in non-Western contexts may not yield entirely positive results, and there may be a number of cultural differences and discrepancies (Nguyen et al., 2009).

On the surface, all the instructors were concerned with personal differences of individual learners. By contrast, in essence, their focus was on group harmony, “we may have students who are Buddhist, Christian, and Muslim in a course. We need to plan a learning

content carefully that shouldn't affect others or create an argument between students" (Instructor 1). In order to enhance group learning experiences, the instructors appeared to design group work to promote interpersonal interactions between peers, particularly senior peers. The instructors also encouraged learners to take the personal differences such as cultural, religious, and political backgrounds into consideration when interacting and collaborating with peers, as well as designing courses based on learners' personal differences. It is consistent with the argument put forward by McLoughlin and Oliver (2000) that culture permeates learning, and if the needs of culturally diverse learners are to be addressed, there must be substantial discussion about the social and cultural aspects of task design, communication networks, and knowledge structuring in designing educational environments.

The instructors further stated that learners needed to understand and respect the each other's differences to improve a sense of learning community and mutual understanding. Furthermore, the instructors reported that when learners felt frustrated with uncertainty and ambiguity, they adopted Buddhist teachings to manage negative feelings. All these strategies learners used appeared to help strengthen a sense of learning community and increase the opportunity to build mutual understanding, and they worked as agents of cultural transmission. Therefore, instructors can more effectively promote interactions, group harmony, and a sense of community belonging for learners when they develop and design MOOCs with an understanding of cultural and religious differences among learners.

In conclusion, the instructors appeared to foster a sense of belonging and group harmony among learners, claiming that by minimising individuality and improving collective interactions and collaboration, it helps to improve greater collaborative learning. All the

instructors also reported that in order to enhance learners' mutual relationships with senior peers, they encouraged learners to use a communication tool such as group chat and private chat features made available in the social media community to promote interpersonal interactions that concentrate more on cultural and religious differences than on individual differences as representative communication and collaboration.

6.4 Cultural engagement for the MOOCs development

The purpose of this section is to address the pedagogical needs of a conceptual framework related to cultural engagement. Based on the review of the three frameworks performed in Section 2.6 and the interview data analysis of the learners and the instructors in terms of cultural engagement, three arguments emerged: (a) instructors prioritised teaching and learning over cultural engagement; (b) instructors perceived learners as objects to be encouraged to adapt the institutional and/or predominate culture; and therefore, (c) cultural engagement was seen as an additive to pedagogy that it was not necessary to consider it before, during and after the course. The three arguments are discussed through their respective elements (i.e., cultural awareness, participant agency, and connective experience) as they need to be used later to develop a conceptual framework of cultural engagement as a pedagogical system as follows.

Cultural awareness

Cultural engagement encourages instructors to recognise their own practices as cultural engagement that could develop conflict with learners' cultural engagement. Furthermore, instructors' unawareness of their cultural practices leads them to uncritically

use pedagogical strategies and undiscerningly promote the institutional culture (often policies and regulations) and/or their own cultural beliefs (Taheri et al., 2019). In their study of instructors' effort to address cultural diversity in online learning design and application, Bonk et al. (2016) surveyed instructors from around the world and identified that their teaching strategies and practices reflect/are related to their cultural values and dimensions which might not be familiar for learners from different cultural backgrounds. Parrish and Linder-VanBerschot (2010) argued that a critical challenge for instructional designers in addressing cultural diversity in multicultural classrooms is to be aware of their own cultural biases and tendencies, which allows them to consider diverse cultural values in pedagogical strategies and practices. The unawareness could result in two negative consequences: (a) cultural engagement remains as a non-pedagogical concern, and (b) when cultural engagement emerges from an intercultural context and becomes explicit, all matters will be determined by individual instructors' discretion, which could highly restrict learner engagement to a predominant culture.

Participant agency

Learners could not be agents of change but rather objects to be changed in a way to adapt to a predominant (institutional) culture. This idea is opposed to the constructivist views of learner engagement, in that learners can only construct meaning through active engagement with the world, and their mental schemes operate through socio-cultural engagement (Jonassen et al., 1995). "When it comes to online learning, the issue [cultural conflict] becomes more complex as most learning management systems utilized for online learning have been developed with a bias for Western culture and amplify the norms and

expectations of Western classrooms” (Aoki, 2009, p. 35). In such a learning environment, learners could be educated as highly individualised persons at best. As Taheri et al. (2019) argued, “instructional strategies and practices which are research-based are also culture-based” (pp. 597-598). In essence, the learner agency is highly associated with their own learning and participation (Deters, 2013), and active learning experiences are directly related to their cultural conditions and identity in that a socially and culturally embedded structure allows learners to become authentic social actors (Mick, 2011). These arguments indicate that learner culture needs to be prioritised and considered for their agency identity in pre-course design. Furthermore, as cultural awareness of instructors should be included in course design for cultural engagement, both instructors and students always remain in the cultural network which is consistent with the connectivity of online learning (Axelson & Flick, 2010).

Connective experience

If cultural engagement remains optional, quality engagement becomes dependent on individual instructors’ cultural awareness and pedagogical ability. As the instructor is positioned somewhere out of the network, the removed, third person perspective to the learners and the network can compromise the connective nature of online learning. The connectivity between participants (learners and instructors) determines quality learning because online learning is characterised by distributed knowledge networks (Downes, 2012; Siemens, 2005), and it is ‘cultural’ in the ways which participants develop cooperative and collaborative relationships (Dreamson, 2019). Thus, cultural awareness online is *meta-connective*, that is individuals need an awareness of how they are interconnected in the network (Dreamson, 2019). The agency of individuals is sustained in the network, and in

turn, this connectivity intensifies the awareness of cultural engagement in individuals. This connective experience further enhances participant agency through meta-connectivity or self-awareness of connectivity that reminds them of being connected and encourages them to ask how their connective experiences are reproduced, that is, how cultural engagement occurs in the network.

6.5 Cultural engagement as a pedagogical system

The section suggests a conceptual framework to ensure that cultural engagement as a pedagogical system leads to authentic learner engagement. Based on the discussion of the importance of cultural engagement in the sections above, the three elements (i.e., cultural awareness, participant agency, and connective experience) and the three Thai culture-related areas (i.e., a sense of community belonging, a hierarchical but harmonious relationship with seniors, and culturally representative communication and collaboration) confirm the position of cultural engagement in course design where learner engagement and learning are not only built on cultural needs but also feed backward and forward through a circular mechanism of cultural engagement. In the mechanism, the three types of cultural engagement, *identified-facilitated-emergent*, ensure that the dimensions of learner engagement work efficiently for culturally inclusive learning as shown in the figure below.

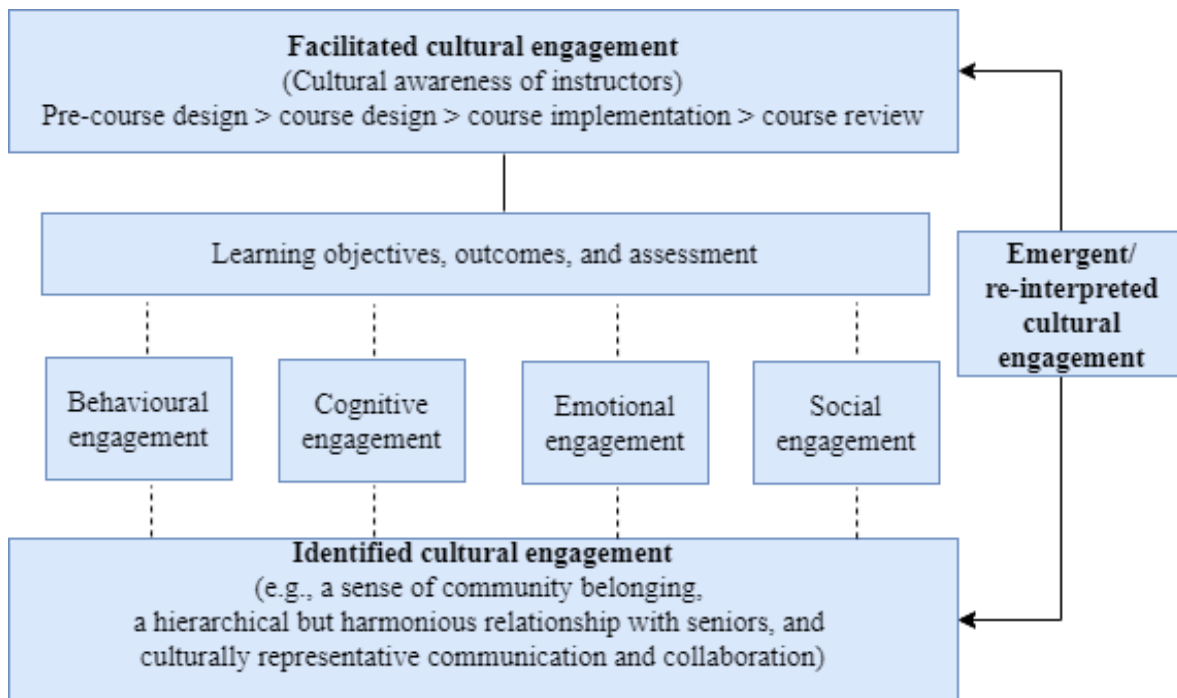


Figure 6.1: The circular mechanism of cultural engagement

First, the facilitated cultural engagement should be neither provisional nor temporary. This means that it must be considered prior to course design until course review because both learners and instructors are agents of culture, and their engagement is ongoing before, during, and after the course. In this process, a significant pedagogical precondition occurs, which is the instructor’s cultural awareness. Even if the instructor’s culture and the learners’ culture are identical, cultural awareness remains as a pre-condition of learning and teaching activities, otherwise, the instructor will be unable to comprehend emergent cultural changes or compel learners to adapt institutional cultural values or instructor’s cultural beliefs. Pedagogically, cultural awareness reminds instructors that the cultural engagement they observed is the facilitated cultural engagement, and they are also participant agents of their culture.

Second, the identified cultural engagement needs to be filtered through the dimensions of learner engagement, as they are the categories of learner engagement in education (Kahu & Nelson, 2018). The filtration is a process where the identified cultural engagement are systematically aligned with learning objectives, outcomes, and assessment. Yet, the dotted line connections represent that not all the dimensions of learner engagement are necessarily applied because the predefined meaning of each dimension can compromise and suppress the cultural needs. As observed with the participants, cultural engagement can tackle the procedural approaches of the dimensions (i.e., community belonging, hierarchical relationships, and socio-cultural representatives) and also undermine the boundaries (e.g., correspondingly, social-cognitive, collective-emotional, and relational-behavioural engagement). Thus, the dimensions need to be used to facilitate the identified cultural needs in a teaching and learning context.

Third and last, the emergent cultural engagement is important to maintain the circular process of cultural engagement, as cultural engagement is not fixed but on-going. Emergent or reinterpreted cultural needs emerging through a learning process feed backward to the facilitated cultural needs/engagement and feed forward to the identified cultural needs. This means that the participants (i.e., instructors and learners) practice and discover cultural engagement at the same time through the interactions between the identified cultural needs/engagement and the learning process. While the instructor can (further) pedagogicalise cultural engagement in course design and participate in cultural engagement, the learners as agents reproduce the identified cultural engagement through connective experiences.

Based on the three identified cultural engagement (i.e., a sense of community belonging, a hierarchical but harmonious relationship with seniors, and culturally representative communication and collaboration), practical implications can be considered. As “self-confidence, self-efficacy, and self-esteem increase when learners have significant trusting relationships with tutors and their peers”, a sense of belonging needs to be promoted by facilitating individual and group dialogues and the community responsibility in online learning (Peacock & Cowan, 2019, p. 78). This type of a (Western) sense of belonging assumes that individual learners are responsible to work together to build “a collaborative educational community” where “dialogic debates can occur free of intimidation” and learners “feel accepted, respected, and valued in a group” (p. 73). This outcome driven learning strategy is different from Thai sense of community belonging as the students and instructors described that they highly value pre-existing relationships that are socio-culturally shaped. This means that at least both approaches, ‘individuals to community’ and ‘community to individuals’, need to be considered for culturally inclusive learning. In particular, the latter approach encourages us to design learning activities to reflect pre-existing socio-cultural relationships such as a hierarchical but harmonious relationship with seniors. Learning activities on communication and collaboration tools such as discussion boards, wikis, blogs, journals, real-time chat/video conferencing need to be organised for their engagement in supporting and enhancing relationships by considering pedagogical and technological features. Furthermore, when a student cohort consists of culturally diverse backgrounds, learning activities need to be more structured and instructed in a way to address their diverse cultural representativeness and quality engagement. For example, collaborative features of

wikis, cooperative features of blogs, and self-learning features of journals are integrated in a way to instruct students to practise a sense of community belonging.

6.6 Chapter summary

This section provides the pedagogical implications based on the above conceptual framework of cultural engagement as a pedagogical system. The circular mechanism indicates that cultural engagement as a pedagogical system can lead course development. As suggested in the three elements — cultural awareness, participant agency, and connective experience, instructors could not be out of the system. In essence, they are participants in cultural engagement as they are responsible for designing courses using their pedagogical knowledge and instructional skills. They are not devalued, but their agency becomes equal to that of the learners in terms of identity formation in the networked learning environment, which is consistent with the connective nature of online learning. In the circular mechanism, emergent cultural engagement will not only enrich instructors' understanding of and engagement in culture but also ensure that they are also participants in the connective nature of cultural engagement online. Furthermore, instructors will be able to participate in institutional and curricular decision-making processes by advocating cultural engagement because cultural engagement is a pedagogical system for authentic learner engagement.

Specifically, the pedagogical implications of the four dimensions of learner engagement can be articulated based on the identified learners' cultural engagement. First, for collective behavioural engagement, learners can be guided to experience and reach a group or entire-class achievement by organising their collectively charged parts that

contribute to the whole class/group outcome on a real-time co-authoring document (e.g., Google Doc). The activity could enable learners to experience a learning community by producing new knowledge. Second, for relational cognitive engagement, a specific instruction on how learners should support each other (e.g., sharing ideas by replying to a team member's post or organising a peer-to-peer Q&A group) can be given. This strategy could encourage individual learners' contribution to the team or whole class through actual relationship building. Third, for mediated emotional engagement, by identifying cultural values for/against quality learning (e.g., considering seniority over critical thinking), learners can be informed, so that they can be free from the cultural value for a particular activity. This strategy could help learners be aware of their own cultural values and focus on learning objectives. Fourth, for de-individuated social engagement, diverse roles and role changes can be given by addressing learner identities as a participant (independent, agential, and critical) and a member in a group (interdependent, collective, and inclusive). This multiple role arrangement could enable learners to take care of both community contribution and individual engagement and performance at the same time.

In addition, the findings of the study justify a need for 'intercultural engagement', as learners who have diverse cultural backgrounds are participating in MOOCs, and their intercultural interactions can determine quality learning. This idea is consistent with pedagogical implications of the findings in that (a) as cultural engagement was found throughout the dimensions of learner engagement, diverse cultures of learner groups in a MOOC environment further complicate understanding and accessing learner engagement. This, then, challenges instructors to develop 'interculturally responsive pedagogical

strategies; (b) cultural diversity as an emerging concept that is supposed to be inclusive of all types of cultural engagement becomes a new challenge to MOOC instructors as cultural diversity should not compromise intercultural interactions and vice versa; and (c) as a result, further pedagogical research is necessary to confirm whether each culture remains as a superordinate concept to the dimensions of learning engagement in a culturally diverse context. In today's culturally diverse MOOC environments, quality intercultural engagement appears as an authentic pedagogical challenge. The next chapter aims to present the contributions and limitations of this study, as well as the directions for future research.

CHAPTER 7: CONCLUSION

7.1 Introduction

This study explored the dimensions of learner engagement in the context of Thai MOOCs, using a theoretical lens derived from connectivism, and a cultural lens derived from the five Thai cultural values and Hofstede's six cultural dimensions to examine how Thai learners perceived their engagement, and how Thai instructors improved learner engagement. This study addressed the central research question: How and in what manner do Thai learners and instructors practise their cultural values in their engagement and in management of MOOCs? It was then followed by the following research sub questions:

- 1) How do Thai learners perceive their engagement dimensions within MOOCs, and how do they reflect Thai cultural aspects in their learning?
- 2) How do Thai instructors determine learner engagement dimensions within MOOCs, and how do they embed Thai cultural aspects in their teaching practices?
- 3) How are the learner engagement dimensions enacted in MOOCs interaction, communication, and collaboration?

From the above research questions, the purposes of this study were:

- 1) To investigate learner engagement in MOOCs by reflecting Thai cultural needs.
- 2) To develop a pedagogical model for Thai learners' cultural engagement in MOOCs.

This final chapter begins with an overview of research outlining the findings from this study (7.2). It is followed by the research contributions the findings make to existing knowledge to advance the understanding of learner engagement within MOOCs learning environments (7.3). The next sections discuss the recommendations (7.4), the limitations of this study (7.5) and the directions of future research (7.6). The chapter concludes the overall study (7.7).

7.2 Research overview

This section consists of the pedagogical assumptions and theoretical statements used in this study (7.2.1) and a summary of the research findings (7.2.2).

7.2.1 Pedagogical assumptions and theoretical statements

This study was undertaken based on the pedagogical assumptions that align with Hofstede's six cultural dimensions for Thailand and Thai cultural values discussed in Chapter 2. The pedagogical assumptions that underpinned this study are as follows.

A high power distance cultural dimension may cause learners to hesitate to actively engage in mutual relationships through social interactions if the MOOC course is facilitated based solely on independent learning. Hesitating may also result from being considerate when younger learners feel uncomfortable communicating and collaborating with their senior peers.

A high uncertainty avoidance cultural dimension can be mitigated by setting a positive MOOC learning environment through diverse learning activities and teaching

strategies. Their collective engagement, underpinned by shared faith and values, such as gratitude and indebtedness, and mercy and kindness, could lead to an increase in positive social and cognitive engagement.

A collectivistic cultural dimension may help increase the opportunity for learners to co-construct knowledge and communicate with peers in a MOOC learning environment through promoting interactions, which demonstrate that group cohesion and group goals in a learning community are valued throughout the course. A sense of a learning community could lead to positive dimensions of cognitive, emotional, and social engagement.

A feminine cultural dimension may help enhance the development of mutual understanding and relationships. It enables Thai learners to further interact, communicate, and collaborate more with peers, focusing on how learners can help each other, through gratitude and indebtedness, and mercy and kindness, to complete group tasks.

A normative cultural dimension may involve learners participating more in learning activities and teaching strategies in a MOOC learning environment. It is assumed that Thai learners value collective communication and collaboration with peers, and comply with class rules and instructors' guidance, leading to deeper learner engagement.

A cultural dimension of restraint, and avoiding expressing feelings may lead learners to engage in low levels of social interaction. It is assumed that more structured interaction between learners can increase their social engagement. There may be a tendency to restraint when Thai learners adopt considerate ways to interact and cooperate with their senior peers.

This study was also undertaken based on the theoretical statements using connectivism as a theoretical lens. In line with the Thai cultural aspects, the theoretical statements that underpinned this study are as follows.

A Thai MOOC course should acknowledge that a collaborative learning environment aims to increase a sense of belonging; provide learners with an easy-to-follow interface, an opportunity to build a positive rapport with peers, and timely feedback and guidance from instructors; and, encourage learners to be aware of their own cultural values when interacting and communicating with peers and instructors.

A Thai MOOC course should acknowledge that using communication tools aims to promote a sense of learning community; provide an opportunity for learners to collaboratively co-construct knowledge with peers through various communication and collaboration tools; and, encourage learners to be active participants who have mutual relationships and shared faith and values with peers when participating in learning.

A Thai MOOC course should acknowledge that learner engagement needs to be structuralised and contextualised; provide an opportunity for learners and instructors to perform social and teaching roles, focusing on more current learning outcomes; and, encourage instructors to provide timely feedback and guidance for learners to further engage in their learning.

A Thai MOOC course should acknowledge that promoting interactions between learner-learner and learner-instructor will help learners feel more comfortable to express their feelings; provide learners with more interaction opportunities with peers and instructors so

as to become competent in co-constructing knowledge; and, encourage learners to share their feelings when collaborating and communicating with peers and instructors.

7.2.2 Research findings

Based on the above pedagogical assumptions and theoretical statements, an overview of the findings is presented based on the research questions. In response to the first research sub question, the results indicated that the Thai learners perceived that the cultural aspects strongly affected the four dimensions of learner engagement as discussed in Section 6.2 (Chapter 6). They demonstrated that their learning engagement was culturally collective-behavioural, by emphasising the importance of a sense of community belonging; relational-cognitive, by focusing on more interdependence but less independence; mediated-emotional, by adopting Buddhist teachings to manage positive and negative feelings; and de-individuated social, by participating in group learning.

For the second research sub question, it was found that the Thai instructors helped learners improve the four dimensions of learner engagement as demonstrated in Section 6.3 (Chapter 6). They designed group-promoting and self-learning teaching activities to improve behavioural engagement; encouraged learners to co-construct knowledge with peers, which helped them understand complex concepts to improve cognitive engagement; encouraged learners' positive feelings, and helped them manage negative feelings by using Buddhist teachings to improve emotional engagement; and, encouraged the development of relationships between learners and senior peers through various social interactions to improve social engagement. Although the instructors tended to enhance learner engagement

by incorporating cultural engagement into the above strategies, they seemed not to be fully conscious of their cultural practices, leading them to use pedagogical techniques uncritically to develop, design, and deliver MOOC courses to promote learner engagement in this study. Specifically, there are three issues regarding cultural engagement that emerged from the perspectives of the three Thai instructors: (a) instructors prioritised teaching and learning over cultural engagement; (b) instructors perceived learners as objects to be encouraged to adapt the institutional and/or predominate culture; and therefore, (c) cultural engagement was seen as an additive to pedagogy that it was not necessary to consider it before, during and after the course.

For the third research sub question, it was found that cultural engagement plays an important role in permeating the MOOCs communication, interaction, and collaboration. Specifically, the three identified cultural engagement elements (i.e., a sense of community belonging, a hierarchical but harmonious relationship with seniors, and culturally representative communication and collaboration) are seen as modifying features for cultural learner engagement in the online learning environment in the Thai collectivistic culture resulting from the convergence of the four engagement dimensions and cultural engagement.

Overall, the results of the study address the central research question that Thai learners and instructors demonstrated that they considered cultural engagement as a vital element that fuses into the four dimensions of learner engagement. This means that cultural engagement should not be a subordinate concept to learner engagement; indeed, because it can determine the meaning of each dimension, it should be a superordinate concept.

7.3 Research contributions

This section deals with the contributions of this study. It consists of four subsections articulating the contributions to theory, methodology, pedagogy, and literature.

7.3.1 Contributions to theory

Connectivism tends to focus on the participation of more individual learners accessing different learning communities in the network to co-construct and share knowledge with others (Kop & Hill, 2008). Connectivism also focuses primarily on human-to-human interactions of how to connect and re-connect to different learning communities using various communication tools of synchronous or asynchronous modes to co-construct knowledge (Ganesan et al., 2002; Peters, 2016; Siemens, 2005), as well as collaboration between learners necessary for the co-construction of knowledge in an information network, as knowledge is distributed through a network of connections (Downes, 2007). In such ways, the main functionalities of authentic connectivist learning tend to be interaction, communication, and collaboration.

The findings of this qualitative study suggest that incorporating cultural engagement into the development and design of connectivist learning in collectivistic cultures could help foster greater interaction, communication, and collaboration, resulting in higher learner engagement. It is consistent with the argument of Dreamson et al. (2017), “communication and collaboration are regarded key instructional dimensions for culturally inclusive learning in online learning environments”, and culture becomes prominent in both dimensions (p. 949).

For this study, group learning is an example of cultural engagement that helps support the three connectivist functionalities. The Thai learners demonstrated that by developing mutual relationships with peers to improve the quality of interaction, communication, and collaboration, they prioritised a sense of learning community belonging through group learning over individuality. Although this study used Thai xMOOCs to examine the four dimensions of learner engagement, as shown by the findings in the following detail, the three functionalities of connectivist MOOCs remained applicable.

For interaction, most learners appeared to get to know each other through creating interpersonal interaction with peers, either by introducing themselves to peers or by self-disclosing the exchange of information. This seemed to be a significant step in building relationships with peers to allow for further learning together. In other words, it could be seen that in group learning, when the learners expressed mutual interest with peers through the above strategies, they tended to be more positive. It was consistent with the argument put forward by Pellas (2014) that a positive feeling of interest in learning can be used as a trigger for starting initial communication between students to allow for further interaction. The instructors' responses also revealed that they enabled the learners to interact socially with peers using different communication methods, including participating in the discussion forums either by encouraging the learners to share thoughts and ideas on the threads initially generated by the instructors, or by enabling the learners to develop the threads themselves for further peer discussion.

For communication, key findings indicated that the learners preferred to discuss ideas with peers in small groups in order to solve problems of uncertainty and ambiguity, and to

develop mutual relationships with others through the social media community, while the instructors tended to use the social media community to provide learners with support and guidance on difficult tasks. From these findings, all the strategies demonstrated by learners and instructors ultimately pointed to a potential cultural aspect: problems were resolved through social media that is perceived as a learning community or a place where people are supposed to support each other. Scholars argue that the use of social media not only enables learners to demonstrate active learner-to-learner interaction in order to co-construct knowledge (Mai & Poppe, 2016), but also to create their own informal discussion groups based on their cultural background to further discuss assignments and tasks (Nkuyubwatsi, 2014).

For collaboration, key findings indicated that Thai learners appeared to collaboratively work with peers in various ways such as debating ideas among small group members and brainstorming ideas together via social media community. Thai learners appeared to be more collective than individualised in learning, as they tended to engage socially with peers in the co-construction of knowledge perceived as group learning. It also implied that the Thai learners valued a sense of learning community belonging, as the above findings demonstrated that they carried out a great deal of work with peers.

7.3.2 Contributions to methodology

Prior to developing the new conceptual framework, an evaluation of the three frameworks (i.e., Garrison's (2011) community of inquiry, Kahu and Nelson's (2018) educational interface, and Wang et al.'s (2014) connectivist cognitive engagement were

performed. It was found that there were no distinctions between individualistic culture and collectivistic culture (community of inquiry), between cognitive culture and social culture (educational interface), and between instructors' culture and learners' culture (connectivist cognitive engagement).

This study's main methodological contribution is to provide a cultural interpretation in a comprehensive and systematic way to investigate learner engagement by exploring its four dimensions, behavioural, cognitive, emotional, and social, taking cultural engagement into account. This interpretive methodology, as suggested by Bozkurt et al. (2017) and Liu et al. (2016) that future research needs to be undertaken to explore intercultural awareness and to work on variations in geography, linguistics, cultural differences, and participation, respectively, can provide a broader and cultural understanding of learning engagement. Interpretivism was used as a methodology for this study to understand learner engagement in the learning context of MOOCs within Thai collectivistic culture. According to Willis et al. (2007)'s core belief that reality is socially constructed, the social reality of the perceptions and experiences of MOOC learners and instructors can be realised through interpretation using Thai cultural values and Hofstede's cultural dimensions as a cultural lens that allows the use of these perceptions and experiences to construct and interpret the four dimensions of learner engagement from the data collected. In other words, by interpreting the understanding of individual learners and instructors, interpretivism makes it possible to discover the four dimensions of engagement.

Another methodological contribution of this study is its recognition of giving importance to the inclusion of cultural engagement in the development of the new conceptual

framework based on evaluation of the existing frameworks. In the new conceptual framework, it is evidenced that the three identified cultural engagement elements (i.e., a sense of community belonging, a hierarchical but harmonious relationship with seniors, and culturally representative communication and collaboration) contribute to an understanding of authentic learner engagement.

It was concluded that cultural engagement, such as the students' authentic cultural needs and the instructors' understanding of learners' cultural backgrounds, is then necessary to the study of the four dimensions of behavioural, cognitive, emotional, and social engagement as evident in the new conceptual framework.

7.3.3 Contributions to pedagogy

For participant agency, considering learners' cultural needs as their agency identity prior to course design could improve their learning performance and participation during learning activities. For connective experiences, when the participants (i.e., learners and instructors) take part in online learning environment, they seek connection to others who share similar interests and cultural backgrounds to complete the assigned tasks. Pedagogically, instructors as well as learners are the focus of cultural engagement, as defined in Section 1.7, in the new proposed framework when undertaking MOOC courses, as they are considered part of a network of learning environments for the design and development of courses, using their pedagogical knowledge and instructional skills. This means that learners and instructors can contribute equally in a networked learning environment consistent with connectivist learning described above. In particular, with regard to the roles of instructors,

cultural engagement will need to be integrated into institutional and curricular decision-making processes in order to ensure meaningful engagement of learners in the pedagogical system.

The findings of this qualitative study contribute to a pedagogical opportunity for higher education to advance the understanding of the importance of cultural engagement in collectivistic cultures that influences learner engagement within online learning environments, including MOOCs. This is because cultural engagement as a pedagogical system can lead the development of courses and bring about educational change. Based on the proposed conceptual framework for cultural engagement to enhance authentic learner engagement in the previous chapter, the three elements (i.e., cultural awareness, participant agency, and connective experience) confirm that the role of cultural engagement in the design of courses should not be excluded as it could contribute to the successful development of online learning. Taking cultural awareness into consideration when developing and designing online courses could allow the instructors to critically use pedagogical strategies to promote learner engagement and minimise cultural conflicts between learner-learner and learner-instructor.

Another pedagogical contribution in this study is that it evidently showed that cultural engagement played a significant role in the learning and teaching activities of the Thai learners and instructors while taking MOOC courses or in teaching them. Key findings indicate that in order to further improve the four dimensions of learner engagement, the instructors need to design their learning activities and teaching strategies by reflecting the needs and preferences of learners. It is consistent with the argument put forward by

McLoughlin and Oliver (2000) that culture dominates learning and the design of learning environments involves significant discussion on the social and cultural aspects of task design, communication networks, and knowledge structuring in order to address the needs of cultural diversity of learners. Specifically, the pedagogical contribution should be linked to how to develop and design MOOC courses using various learning activities and teaching strategies to promote the four dimensions of learner engagement (i.e., collective-behavioural, relational-cognitive, mediated-emotional, and de-individuated social).

First, for collective-behavioural engagement, the findings suggest that encouraging learners to work in a small group project of no more than five members could help each member interact, communicate, and collaborate effectively with peers to promote group understanding of learning content and successfully complete group tasks. In addition to enhancing group learning, providing immediate feedback along with advice and guidance from instructors could help learners gain a clearer understanding of difficult tasks and support them to engage in more interaction, learner-learner and learner-instructor. In particular, providing learners with an opportunity to work collaboratively with senior peers by allowing them to acquire learning experiences in a comfortable and enjoyable learning environment and enabling them to build pre-existing relationships is likely to help them improve interpersonal interactions for greater participation and involvement in group learning.

Second, for relational-cognitive engagement, the findings reveal that the instructors need to promote group learning via pair and group work through using various teaching strategies, such as encouraging learners to participate more in the discussion forums and encouraging learners to incorporate socio-cultural relevance, such as taking into account age

and seniority when interacting and collaborating with peers. This could help promote interconnectedness and interactions between learners to be less independent but more interdependent through various teaching strategies such as providing small group activities for learners to allow each group member to share ideas and thoughts with peers. It is because this teaching practice may help those who restrained themselves from sharing their opinions with peers, as a result of possessing cultural values such as consideration and respect for others.

Third, for mediated-emotional engagement, the findings suggest that using Buddhist teachings such as staying calm to mediate negative feelings to improve quality learning with others or engaging in positive thinking to mediate positive feelings for greater interaction, communication, and collaboration with others should be encouraged in the collectivistic and relational cultural backgrounds, including Thailand. The instructors need to foster a sense of community belonging to the learners through collaborative learning while developing MOOC courses by designing collaborative learning activities, such as learning together via collaborative features of wikis, cooperative features of blogs, and self-learning features of journals in a way to instruct learners to practise a sense of community belonging. Such collaborative learning activities that focus on collectivity over individuality through the above examples to encourage a sense of community belonging will lead the learners to have positive feelings, resulting in better group learning. The instructors also need to provide effective guidance and advice (e.g., providing learners with an overview of how negative feelings played a negative role in affecting either their academic success or potential employment) to help individual learners deal with their negative feelings across social media

communities, such as following Buddhist teachings (e.g., staying calm, letting go, and getting positive thinking). In addition, providing learners with an opportunity to build mutual relationships with peers and engage in the above collaborative learning activities will help minimise negative feelings.

Fourth and last, for de-individuated-social engagement, the findings indicate that the promotion of group learning in a friendly atmosphere based on the needs and desires of learners may lead to greater opportunities for learners to participate more in learning activities and to interact more with peers. The instructors also need to design group activities based on learners' personal differences and similarities, such as lifestyles, preferences in communication, study field, religion, and politics, in order to build up mutual relationships. For example, this can be done by asking learners to form group learning based on the differences and similarities. Specifically, it was found that the learners gave importance to pre-existing relationships with others, particularly with senior peers. Pre-existing relationships, which are socio-culturally influenced, need to be fostered by instructors through a range of learning activities, such as small group projects and discussion, to strengthen the relationship between learners and seniors. Such learning activities need to be organised and instructed in such a way as to encourage the capacity of learners to communicate and collaborate with others and to respond to their diverse cultural backgrounds and needs by considering pedagogical and technological features. Learners who take part in small group projects and discussion are likely to have greater reciprocal relationships and a sense of community belonging.

7.3.4 Contributions to literature

The contribution to the literature of this study is the demonstration of how to incorporate the cultural aspects of anthropologists in order to obtain a deeper understanding of learner engagement in collectivistic Thai culture. This qualitative study incorporates Hofstede's (2017a; 2017b) cultural model, which indicates that Thailand, as a non-Western country, is characterised as high power distance, high uncertainty avoidance, collectivism, femininity, normative society, and a restraint tendency. The six cultural dimensions have the potential to be related to the four dimensions of learner engagement. For example, a dimension of individualism-collectivism helps explain that MOOC learners from collectivistic cultures who value group cohesion may learn more effectively when they feel emotionally engaged by demonstrating a sense of belonging or community with their fellow students (Fernandes et al., 2017; Masika & Jones, 2016). In relation to the six cultural dimensions for Thai culture, this study also incorporates the five concepts of Thai cultural values (i.e., karma, staying calm, gratitude and indebtedness, mercy and kindness, and consideration) (Podhisita, 1998; Pornpitakpan, 2000; Tetiwat & Huff, 2003), as such Thai cultural values underpinned by Buddhist teachings are consistent and can lead to the understanding of the six cultural dimensions of Thai culture. The six cultural dimensions of Thailand and five Thai cultural values allowed me to specifically interpret how they affect Thai learners' learning via MOOCs and helped extend my understanding of how Thai culture and values contribute to learner engagement as a whole.

7.4 Recommendations

Masika and Jones (2016) argued, a sense of learning community belonging refers to “students’ sense of being accepted, valued, included and encouraged by teachers and peers, and feeling that they are an important part of the life and activity of the classroom” (p. 138). A sense of learning community belonging and group learning then seemed to help improve the learning experience of Thai learners if the instructors encouraged learners to collaboratively work with peers.

To promote authentic learner engagement based on the three identified types of cultural engagement, learning activities need to be organised and taught in a way that address the learners’ diverse cultural representativeness and quality engagement through (a) promoting a sense of belonging by fostering dialogues between individuals and groups and enhancing collective responsibility, (b) designing learning experiences to represent pre-existing socio-cultural relationships such as a hierarchical but harmonious relationship with seniors, and (c) improving relationships by incorporating pedagogical and technological features via learning activities on communication and collaboration tools, such as discussion forums, wikis, blogs, journals, and real-time chat/video conferencing.

From the above-mentioned pedagogical contribution, cultural aspects are considered an important component, as they are influential elements that either increase or decrease the ability of learners to conduct deeper thinking processes and construct knowledge (Casimiro, 2016). Instructors are required to design learning activities taking learners’ cultural needs into consideration to allow learners to effectively complete tasks or co-construct knowledge

by not only sharing their own cultural aspects but also respecting other cultures (Dreamson et al., 2017).

7.5 Limitations of the study

The first methodological limitation is that the selected case sample may not have represented Thailand's larger population of MOOC learners, making it difficult to generalise or extrapolate the findings to the larger population. This is because the students in the specific MOOC courses from which the sample was taken are unlikely to be representative of all university students in Thailand. Specifically, the university students as the sample selected in this study did not appear to represent the demographics of the larger online learners, such as age, educational backgrounds, and work experience, as these demographics could contribute to a greater understanding of how cultural aspects such as age and seniority play an important role in influencing the four dimensions of learner engagement (Hofstede, 1984; 2011; Pagram & Pagram, 2006).

Another methodological limitation in this study is the selection of MOOC courses. I chose only the three MOOC courses this institution offered, as an effort to include more MOOC courses from other institutions seemed rejected by the gatekeepers. This limits the broader demographics of the sample to provide a greater understanding of learner engagement. Thus, the findings may not be generalisable to other contexts.

For a pedagogical limitation, data were obtained in this study only from the three selected MOOC courses, which are considered to be short courses and additional courses to be completed by the learner participants. This could limit a pedagogical understanding of

how cultural engagement plays a significant role within a limited time span in the four dimensions of learner engagement. If more data had been collected and analysed from other MOOC courses with longer spans or from the MOOC courses that learners undertake based on their interests, further findings might have been made to provide a greater pedagogical understanding of how teaching strategies and learning activities can be enhanced.

7.6 Directions of future research

The limitations presented in the previous section could offer future research opportunities. First, multi-case design may be used to compare learner engagement in MOOCs between the cultural context of collectivistic and individualistic cultures. Researchers may find that while conducting research in different cultures, learners may represent different cultural aspects in their learning, and instructors may integrate different cultural aspects into their culturally inclusive teaching practices. This could be done through cross-cultural research.

Second, multi-case design may be also used to compare learner engagement in MOOCs among collectivistic countries. Researchers may find that while learners and instructors come from the same culture, their cultural values may be exercised differently in their engagement, especially in their cultural practice in each dimension of learner engagement. For example, using different anthropologists' cultural frameworks to fit each study's context may provide a better understanding of how learners and instructors conduct cultural engagement in their learning activities and teaching strategies.

Third, cultural engagement, such as community belonging, hierarchical relationships, and socio-cultural representatives, could be used to enhance learner engagement in the development and design of MOOC courses. Specifically, cultural engagement could be considered either at each stage of the learning process, from the design of the course to the review of the course, or in the objectives, outcomes, and assessment of the learning process. This is to assure that the instructors are able to pedagogicalise cultural engagement in course design and participate in cultural engagement, and that the learners are able to reproduce cultural engagement through connective experiences. This pedagogical understanding can then be applied to the three issues raised in Section 7.2.2.

Fourth, future research could be conducted using the six cultural dimensions of anthropologist Hofstede to see how MOOCs learners who are from diverse cultural background interact, communicate, and collaborate with others. Hewling (2005) argued that in the negotiated interpretation of culture in a specific context, rather than between different cultural contexts, the cultural dimensions of Hofstede could be regarded as essentialist theory. This means that Hofstede's cultural dimensions appear to be appropriate to use to understand learner engagement in a specific cultural context like a Thai MOOC context performed in this study.

Fifth, future research could be conducted using the proposed conceptual framework derived from this study to examine the four dimensions of online learner engagement (i.e., behavioural, cognitive, emotional, and social) and to seek a pedagogical opportunity for higher education to advance the understanding of the value of cultural engagement that affects learner engagement. It appears to be consistent with the conceptual framework

suggested by Redmond et al. (2018) that the five key elements of online learner engagement (i.e., social, cognitive, behavioural, collaborative, and emotional) could be used to illustrate the effectiveness of online courses and their potential to engage students in future research. This not only reflects the pedagogical practice of instructors, it also makes it possible to better understand the perceptions and satisfaction of students with online courses (Redmond, 2011).

7.7 Chapter summary

As the literature shows in this study, it is apparent that students from different cultural backgrounds have different types of interaction and levels of engagement in MOOCs. This study also confirmed that such an argument is valid. The significance of this study is that it responded to the pedagogical challenge on whether cultural engagement is an additional dimension to learner engagement or a critical dimension merging into learner engagement. As cultural engagement appeared across the four dimensions of learner engagement (i.e., behavioural, cognitive, emotional, and social), culture should not be a subordinate concept to learner engagement. Rather, it should remain as a superordinate concept because it can determine the meaning of each dimension (i.e., collective engagement, relational engagement, mediated engagement, and de-individuated engagement). When cultural engagement is added as an additional aspect, it will have two problems at least: (a) when the four dimensions and cultural engagement become contradictory (e.g., uncritical thinking to help others), cultural engagement can be rejected, as cognitive engagement is prioritised in learning; and thus (b) learner engagement remains focussed on individual learners' engagement and rejects inclusion of (other types of) cultural engagement.

In addition, as the Thai instructors and learners demonstrated, they practised and reproduced their cultural values across learner engagement dimensions – behaviourally, cognitively, emotionally, and socially, and their engagement was not reducible to each dimension. The relationship between learners’ self-interest in learning and academic engagement is highly cultural, in which learners’ autonomous motivation is additive in the East Asian context, whereas it is essential and thus should not be controlled by Western contextual limits. They explained that respect for the authority of seniors implicitly regulates the interaction between the students. This cultural difference implies that learning design by consideration of cultural engagement should be neither additional nor optional. Rather, its pedagogical focus should remain on how the intangible aspects of culture are integrated into the tangible learning and teaching materials.

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Appendices

Appendix A: Interview protocol for learners

Introductory comments	
<ul style="list-style-type: none"> • Thank you • Your name • Purpose • Confidentiality • Duration • How interview will be conducted • Opportunity for questions 	<p>First of all, I'd like to thank you for your time to meet with me today. My name's Pittaya Yamo. I'd like to talk with you about your perceptions and experience of learner engagement in undertaking a MOOC course. The purpose in this interview is to collect necessary data for a study that I'm conducting for my PhD at the Queensland University of Technology, Australia.</p> <p>The interview will be last for 45-60 minutes. I will be also taking some notes during the interview. As this interview will be voice recorded, please be sure to speak up so that I don't miss your value comments.</p> <p>Your responses will be kept confidential and will only be shared with research members. I will also ensure that any information I include in my thesis does not identify you as the respondent. You don't have to talk about anything you don't want to and you may end the interview at any time.</p> <p>Are there any questions about what I have just explained? Are you willing to participate in this interview? If so, please sign this consent form.</p>
Interview questions	
<ol style="list-style-type: none"> 1. For you, what does it mean to be engaged in your learning? 2. Can you describe the tasks or learning activities in this course? 3. Did you usually comply with learning and teaching activities? If yes, how did you follow these activities? 4. If you found the learning tasks very difficult, what did you do? Did you continue or stop doing those tasks? Did you seek any help from others? If yes, from whom and why? 5. Did you participate in a learning community? If yes, how often did you participate in and how did you find this learning community? 6. How did you construct a mutual understanding with others for a particular learning task or assignment? 7. Did you usually use the same communication strategies with others to facilitate your learning? If not, what different strategies did you use to communicate with same-age peers, and with senior students or instructors? 8. How did you deal with the learning activities that were uncertain or ambiguous? Did they affect your learning performance? Why? 9. How did you feel with undertaking this course? 10. What course components made you feel most interested in? Why? 11. How did you feel when you had to discuss your learning assignments/tasks with your instructors or senior students? 12. Were you happier to interact and collaborate with others? Why? 	

13. Did you show positive and negative emotions to others? How and why?
14. How did you manage your negative feeling in this course?
15. What communication tools did you use to interact and collaborate with your instructors and classmates?
16. What were classroom interactions like? Did you regularly interact and collaborate with your instructors and classmates? If so, how?
17. How did you build relationships with others in this course?
18. Did you feel belong to this course? If so, what, who and how did you belong to?
19. Did you value mutual relationship with your instructors and classmates? If so, how did you start and keep it going?
20. When communicating or interacting with others, how did you handle with those who have different beliefs and cultural values from you?
21. Do you think that different cultural backgrounds influence the ways learners communicate, interact, and collaborate in this course? Why?

Follow-up questions

- Can you tell me more about _____?
- What do you mean by _____?
- Can you give an example of _____?

Appendix B: Interview protocol for instructors

Introductory comments	
<ul style="list-style-type: none"> • Thank you • Your name • Purpose • Confidentiality • Duration • How interview will be conducted • Opportunity for questions 	<p>First of all, I'd like to thank you for your time to meet with me today.</p> <p>My name's Pittaya Yamo. I'd like to talk with you about your perceptions of learner engagement in providing your MOOC course.</p> <p>The purpose in this interview is to collect necessary data for a study that I'm conducting for my PhD at the Queensland University of Technology, Australia.</p> <p>The interview will be last for 45-60 minutes. I will be also taking some notes during the interview. As this interview will be voice recorded, please be sure to speak up so that I don't miss your value comments.</p> <p>Your responses will be kept confidential and will only be shared with research members. I will also ensure that any information I include in my thesis does not identify you as the respondent. You don't have to talk about anything you don't want to and you may end the interview at any time.</p> <p>Are there any questions about what I have just explained? Are you willing to participate in this interview? If so, please sign this consent form.</p>
Interview questions	
<ol style="list-style-type: none"> 1. For you, what does it mean to get your learners engaged in your teaching practices? 2. What were your teaching activities like in this course? 3. How did you encourage your learners to invest their time and effort in completing their learning tasks? 4. What communication strategies did you use to keep your learners staying with the course until they are satisfied with or complete the course? 5. Did you provide any special tasks or projects in this course to improve learner engagement? If yes, how and why? 6. How did you improve your learners' in-depth understanding of complex concepts? Did you have any particular steps? 7. How did you provide an opportunity for learners to collaboratively co-construct knowledge with others? 8. How did you promote learners' self-efficacy, especially for those who have family and work responsibilities? 9. How did you motivate your learners to participate and interact with others in their learning? 10. How did you encourage learners to share their feeling expressions when collaborating and communicating with peers and you? 11. How did you deal with the negative feelings when learners demonstrate them? 12. Did you consider learners' interest, enjoyment and happiness to be an important part of designing this course? If so, how and why? 13. Which learning activities did you think that they help your learners improve a sense of belonging? Why? 14. Did you encourage learners to interact with others through various communication and collaboration tools? What are they, and how? 15. Do you think that building a positive rapport, and providing timely feedback and guidance to your learners can improve their learning? If yes, how and why? 	

16. How did you encourage learners to actively communicate with senior students and instructors?
17. Did you take cultural aspects into your consideration when designing this course to promote social interaction among learners? If so, how and why?
18. How did you encourage learners to be active learners who have shared faith and values with peers when interacting, communicating, and collaborating with peers?

Follow-up questions

Can you tell me more about _____?

What do you mean by _____?

Can you give an example of _____?

Appendix C: Browsing protocol for discussion forums

Course name: _____

Date: _____

Dimensions	Indicators	Descriptive evidence	Reflection or comments
Cognitive engagement	Triggering <input type="checkbox"/> question <input type="checkbox"/> puzzlement Exploration <input type="checkbox"/> information exchange <input type="checkbox"/> suggestion <input type="checkbox"/> brainstorming <input type="checkbox"/> opinions Integration <input type="checkbox"/> connecting ideas <input type="checkbox"/> synthesis <input type="checkbox"/> solutions Resolution <input type="checkbox"/> applying <input type="checkbox"/> testing <input type="checkbox"/> defending		
Emotional engagement	Positive personal affective feelings <input type="checkbox"/> appreciation <input type="checkbox"/> joy <input type="checkbox"/> desire <input type="checkbox"/> happiness <input type="checkbox"/> surprise <input type="checkbox"/> thankfulness Negative personal affection feelings <input type="checkbox"/> dislike <input type="checkbox"/> disappointment <input type="checkbox"/> fear <input type="checkbox"/> frustration <input type="checkbox"/> confusion		


Dimensions	Indicators	Descriptive evidence	Reflection or comments
Social engagement	Interpersonal communication <input type="checkbox"/> affective expression* <input type="checkbox"/> self-disclosure** <input type="checkbox"/> use of humour Open communication <input type="checkbox"/> continuing a thread <input type="checkbox"/> quoting from others' messages <input type="checkbox"/> referring to others' messages <input type="checkbox"/> asking questions <input type="checkbox"/> complimenting <input type="checkbox"/> expressing agreement Cohesive communication <input type="checkbox"/> vocatives*** <input type="checkbox"/> addressing or referring to the group using inclusive pronouns <input type="checkbox"/> greetings, salutations		

* Conventional expressions of emotion, or unconventional expressions of emotion, including repetitious punctuation, conspicuous capitalization, and emoticons

** Presents biographies, details of personal life outside of class, or expresses vulnerability

*** Addressing or referring to participants by name

Appendix D: Participant Information and Consent Forms

	PARTICIPANT INFORMATION FOR QUT RESEARCH PROJECT – Interview: Learner –
Learner Engagement in a Collectivistic Culture: A Case Study of Massive Open Online Courses (MOOCS) in Thailand QUT Ethics Approval Number 1900000700	

Research team

Principal Researcher: Mr Pittaya Yamo PhD student

Associate Researchers: Dr Neal Dreamson Principal Supervisor

Dr Kelli McGraw Associate Supervisor

Faculty of Education, Queensland University of Technology (QUT)

Why is the study being conducted?

This research project is being undertaken as part of a PhD study for Pittaya Yamo.

The purpose of this project is to investigate the nature of learner engagement within Massive Open Online Courses (MOOCs) in Thai culture.

You are invited to participate in this research project because you are a student who undertakes and participates in a discussion forum of URUMOOC courses offered by Uttaradit Rajabhat University.

What does participation involve?

Prior to commencing a semi-structured interview, the researcher will need to obtain your consent to participate.

Your participation will involve an audio recorded interview at your convenience either via face-to-face or online such as Skype that will take approximately 45-60 minutes of your time.

Your participation in this research project is entirely voluntary. If you do agree to participate you can withdraw from the research project without comment or penalty. You can withdraw anytime during the interview. If you withdraw with four weeks after your interview, on request any identifiable information already obtained from you will be destroyed. Your decision to participate or not participate will in no way impact upon your current or future relationship with QUT. Finally, you will have an opportunity to ask questions regarding this interview.

Questions will include:

1. For you, what does it mean to be engaged in your learning?
2. Can you describe the tasks or learning activities in this course?
3. Did you usually comply with learning and teaching activities? If yes, how did you follow these activities?
4. If you found the learning tasks very difficult, what did you do? Did you continue or stop doing those tasks? Did you seek any help from others? If yes, from whom and why?
5. Did you participate in a learning community? If yes, how often did you participate in and how did you find this learning community?
6. How did you construct a mutual understanding with others for a particular learning task or assignment?
7. Did you usually use the same communication strategies with others to facilitate your learning? If not, what different strategies did you use to communicate with same-age peers, and with senior students or instructors?
8. How did you deal with the learning activities that were uncertain or ambiguous? Did they affect your learning performance? Why?
9. How did you feel with undertaking this course?
10. What course components made you feel most interested in? Why?
11. How did you feel when you had to discuss your learning assignments/tasks with your instructors or senior students?
12. Were you happier to interact and collaborate with others? Why?
13. Did you show positive and negative emotions to others? How and why?
14. How did you manage your negative feeling in this course?
15. What communication tools did you use to interact and collaborate with your instructors and classmates?
16. What were classroom interactions like? Did you regularly interact and collaborate with your instructors and classmates? If so, how?
17. How did you build relationships with others in this course?
18. Did you feel belong to this course? If so, what, who and how did you belong to?
19. Did you value mutual relationship with your instructors and classmates? If so, how did you start and keep it going?
20. When communicating or interacting with others, how did you handle with those who have different beliefs and cultural values from you?
21. Do you think that different cultural backgrounds influence the ways learners communicate, interact, and collaborate in this course? Why?

For the browsing of discussion forums, the researcher will only collect messages that are related to this project. He will define himself as a nonparticipant who only observes how you interact and collaborate with peers. He will not post, reply, or provide any feedback in discussion forums.

What are the possible benefits for me if I take part?

It is expected that this project will not benefit you directly. However, it may benefit providing and learning MOOCs in terms of sharing your experiences and learning strategies with others. The empirical findings of this research will be of potential significance to theory and practice. These include significance related to learner engagement and significance related to MOOCs.

What are the possible risks for me if I take part?

The semi-structured interviews may cause you to experience some discomfort such as being interviewed in an unfriendly environment, losing their confidentiality and anonymity when giving responses, and having negative impact on their current or future relationship with QUT or undertaken MOOC courses. For the browsing of discussion forums, the forum participants may be concerned about losing anonymity and of being identified as a respondent of this project.

The researcher will ensure that the interview sessions are always conducted in a friendly environment and manner to minimise the potential risk of discomfort. Your answers and responses are confidential and anonymous. Any potentially identifying information will be removed from transcripts. No personally identifiable or private information collected from this project will be ever revealed.

For messages collected from the discussion forums, any direct identifiers will be removed from the information and replaced with a code. Additionally, there will be no detailed demographic or other information that might be able to identify in this project.

What about privacy and confidentiality?

All comments and responses will be treated confidentially unless required by law, or regulatory or monitoring bodies, such as the ethics committee. The names of individual persons are not required in any of the responses.

As the research project involves an audio recording:

- You will not have the opportunity to verify your comments and responses prior to final inclusion.
- The recording will be retained for the minimum retention period of 5 years after the last research activity.
- The recording will not be used for any other purpose.
- Only the named researchers will have access to the recording.
- It is not possible to participate in the research project without being recorded.

How do I give my consent to participate?

We would like to ask you to sign a written consent form (enclosed) to confirm your agreement to participate.

What if I have questions about the research project?

If you have any questions or require further information please contact one of the listed researchers:

Pittaya Yamo pittaya.yamo@hdr.qut.edu.au

Neal Dreamson neal.dreamson@qut.edu.au +61 7 3138 3920

What if I have a concern or complaint regarding the conduct of the research project?

QUT is committed to research integrity and the ethical conduct of research projects. If you wish to discuss the study with someone not directly involved, particularly in relation to matters

concerning policies, information or complaints about the conduct of the study or your rights as a participant, you may contact the QUT Research Ethics Advisory Team on +61 7 3138 5123 or email humanethics@qut.edu.au.

Thank you for helping with this research project. Please keep this sheet for your information.



PARTICIPANT INFORMATION FOR QUT RESEARCH PROJECT

– Interview: Instructor –

Learner Engagement in a Collectivistic Culture:

A Case Study of Massive Open Online Courses (MOOCS) in Thailand

QUT Ethics Approval Number 1900000700

Research team

Principal Researcher:	Mr Pittaya Yamo	PhD student
Associate Researchers:	Dr Neal Dreamson	Principal Supervisor
	Dr Kelli McGraw	Associate Supervisor

Faculty of Education, Queensland University of Technology (QUT)

Why is the study being conducted?

This research project is being undertaken as part of a PhD study for Pittaya Yamo.

The purpose of this project is to investigate the nature of learner engagement within Massive Open Online Courses (MOOCs) in Thai culture.

You are invited to participate in this research project because you are an instructor who is responsible for and delivers URUMOOC courses offered by Uttaradit Rajabhat University.

What does participation involve?

Prior to commencing a semi-structured interview, the researcher will need to obtain your consent to participate.

Your participation will involve an audio recorded interview at your convenience either via face-to-face or online such as Skype that will take approximately 45-60 minutes of your time.

Your participation in this research project is entirely voluntary. If you do agree to participate you can withdraw from the research project without comment or penalty. You can withdraw anytime during the interview. If you withdraw with four weeks after your interview, on request any identifiable information already obtained from you will be destroyed. Your decision to participate or not participate will in no way impact upon your current or future relationship with QUT. Finally, you will have an opportunity to ask questions regarding this interview.

Questions will include:

1. For you, what does it mean to get your learners engaged in your teaching practices?
2. What were your teaching activities like in this course?

3. How did you encourage your learners to invest their time and effort in completing their learning tasks?
4. What communication strategies did you use to keep your learners staying with the course until they are satisfied with or complete the course?
5. Did you provide any special tasks or projects in this course to improve learner engagement? If yes, how and why?
6. How did you improve your learners' in-depth understanding of complex concepts? Did you have any particular steps?
7. How did you provide an opportunity for learners to collaboratively co-construct knowledge with others?
8. How did you promote learners' self-efficacy, especially for those who have family and work responsibilities?
9. How did you motivate your learners to participate and interact with others in their learning?
10. How did you encourage learners to share their feeling expressions when collaborating and communicating with peers and you?
11. How did you deal with the negative feelings when learners demonstrate them?
12. Did you consider learners' interest, enjoyment and happiness to be an important part of designing this course? If so, how and why?
13. Which learning activities did you think that they help your learners improve a sense of belonging? Why?
14. Did you encourage learners to interact with others through various communication and collaboration tools? What are they, and how?
15. Do you think that building a positive rapport, and providing timely feedback and guidance to your learners can improve their learning? If yes, how and why?
16. How did you encourage learners to actively communicate with senior students and instructors?
17. Did you take cultural aspects into your consideration when designing this course to promote social interaction among learners? If so, how and why?
18. How did you encourage learners to be active learners who have shared faith and values with peers when interacting, communicating, and collaborating with peers?

For the browsing of discussion forums, the researcher will only collect messages that are related to this project. He will define himself as a nonparticipant who only observes how you interact and collaborate with peers. He will not post, reply, or provide any feedback in discussion forums.

What are the possible benefits for me if I take part?

It is expected that this project will not benefit you directly. However, it may benefit providing and learning MOOCs in terms of sharing your experiences and learning strategies with others. The empirical findings of this research will be of potential significance to theory and practice. These include significance related to learner engagement and significance related to MOOCs.

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The semi-structured interviews may cause you to experience some discomfort such as being

interviewed in an unfriendly environment, losing their confidentiality and anonymity when giving responses, and having negative impact on their current or future relationship with QUT or undertaken MOOC courses. For the browsing of discussion forums, the forum participants may be concerned about losing anonymity and of being identified as a respondent of this project.

The researcher will ensure that the interview sessions are always conducted in a friendly environment and manner to minimise the potential risk of discomfort. Your answers and responses are confidential and anonymous. Any potentially identifying information will be removed from transcripts. No personally identifiable or private information collected from this project will be ever revealed.

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We would like to ask you to sign a written consent form (enclosed) to confirm your agreement to participate.

What if I have questions about the research project?

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Pittaya Yamo pittaya.yamo@hdr.qut.edu.au

Neal Dreamson neal.dreamson@qut.edu.au +61 7 3138 3920

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Thank you for helping with this research project. Please keep this sheet for your information.



CONSENT FORM FOR QUT RESEARCH PROJECT

– Interview and Browsing of Discussion Forums –

Learner Engagement in a Collectivistic Culture:

A Case Study of Massive Open Online Courses (MOOCS) in Thailand

QUT Ethics Approval Number 1900000700

Research team

Pittaya Yamo	pittaya.yamo@hdr.qut.edu.au	
Neal Dreamson	neal.dreamson@qut.edu.au	+61 7 3138 3920
Kelli McGraw	kelli.mcgraw@qut.edu.au	+61 7 3138 8777

Statement of consent

By signing below, you are indicating that you:

- Have read and understood the information document regarding this research project.
- Have had any questions answered to your satisfaction.
- Understand that if you have any additional questions you can contact the research team.
- Understand that you are free to withdraw without comment or penalty.
- Understand that if you have concerns about the ethical conduct of the research project you can contact the Research Ethics Advisory Team on +61 7 3138 5123 or email humanethics@qut.edu.au.
- Understand that the research project will include an audio recording.
- Agree to participate in the research project.

Name _____

Signature _____

Date _____

Please return the signed consent form to the researcher.