Engagement in Online Learning Among Thai and German students: The role of Classmates, Instructors, and Technology across Country Contexts

Christin Grothaus
Mahidol University International College, Thailand

Abstract

Since the outbreak of COVID-19, an increasing number of educators around the world have been challenged to support student engagement in online environments. However, there is a lack of research in online learning that considers the role of the country context. This study explores student engagement in online learning, comparing the experiences of 9 German and 11 Thai students with help of in-depth interviews. Findings reveal differences in affective, behavioral, and cognitive engagement across groups. Only German students referred to a lack of affective engagement due to ineffective communication with peers and lecturers, tools used, and privacy concerns. The learning environment influenced affective and cognitive engagement differently. German students felt exhausted because of increased self-study time and lack of guidance. Thai students spent more time studying via videoconferences due to institutional policies. They highlighted a lack of focus due to distraction by digital technologies as well as family members, which they associated with Thai cultural norms to spend time with family. Behavioral engagement, particularly verbal participation during videoconferences, was negatively affected among Thai students. They worried about the effect voicing behavior could have on classmates' feelings, which they attributed to cultural values of being considerate and the need for social harmony. These and other findings are discussed considering the possible role of national, local, and cybercultures as well as institutional contexts.

Keywords: engagement, online learning, culture, Thai, German

Engagement has been associated with positive learning outcomes, such as the improvement of relationships through collaborative learning (Zweekhorst & Maas, 2015), meta-cognition (Salaber, 2014), and lifelong learning (Karabulut-Ilgu et al., 2018). With a growing internationalization of education online learning across borders gains increasing importance. Research on worldwide developments in distance education (Zawacki-Richter & Qayyum, 2019) has emphasized the need to consider the context of institutional and national cultures as well as differences in the use of learning technologies across countries when designing online learning. Online learning can be defined as a form of learning supported by networked computing technology and learning technologies (Moore et al., 2011), conducted on or off campus, synchronously, or asynchronously. Exploring the country context as well as learners' backgrounds can support careful planning and adequate pedagogies that aim to increase engagement, an important prerequisite of online learning (Englund et al., 2017).

While student engagement plays an important role in online learning, scholars have found it to be vaguely conceptualized (e.g., Ashwin & McVitty, 2015) and weakly theorized (Kahn, 2014). Engagement has been defined as an investment of students' resources, such as their energy, effort, and time, aiming at improving learning outcomes (Trowler & Trowler, 2011), which can include behavioral (e.g., participation and persistence), affective (emotional reactions to learning, e.g., excitement) and cognitive dimensions (e.g., self-regulation and deep learning strategies) (Moore et al., 2009; Perez et al., 2018). It has been debated whether dimensions of social engagement (Fredricks et al., 2016) and agency (Klemenčič, 2017; Reeve & Tseng) should be added. Redmon et al. (2018) suggested an online engagement framework for higher education and further distinguished between social and collaborative engagement. While the former addressed aspects such as building a community and establishing a sense of trust, the latter focused particularly on collaboration, such as when learning with peers.

Motivation has been regularly defined as an antecedent to engagement, a non-visible intent, which can be separated from its behavioral expression (e.g., Reschly & Christenson, 2012). While engagement has been contrasted with passivity or alienation (Case, 2008), scholars have mostly defined engagement and disengagement as two separate constructs, with disengagement often being associated with frustration (Ikpeze, 2007), opposition/rejection (Smidt et al., 2014) and disappointment (Granberg, 2010).

The use of educational technologies, such as online discussion boards, digital games, web-conferencing software, and knowledge-sharing tools has been positively associated with student engagement (Chen et al., 2010; Rashid & Asghar, 2016; Schindler et al., 2017). However, a recent review study (Bond et al., 2020) showed that the use of knowledge organization & sharing tools with undergraduate students as well as synchronous communication tools were topics researched far less than expected. Next to a lack of studies centering on tools in online learning engagement, review studies reflecting upon the role of culture in online learning stress the need for more scholarly efforts in researching the role of the country context in-depth (Grothaus & Zawacki-Richter, 2020).

The role of culture in online learning engagement

Scholars have stressed the importance to consider learners' backgrounds, preferences, and experiences when designing learning environments to increase engagement (Weidlich & Bastiaens, 2019). Boubsil et al. (2011) asked to consider the influence of culture when designing online learning through such as pedagogical methods, localized cultural character of online programs as well as through content and teaching models. A systematic review study on

Emergency Remote Teaching highlighted a focus of research on local contexts and a lack of cross-national collaboration in research on student engagement. The authors suggested scholars to consider the broader sociocultural framework of engagement when exploring how educational technology affects engagement (Bond, 2020). Bond & Bedenlier (2019) added the component of learning technologies to the student engagement framework by Kahu (2013), who conceptualized individual experiences embedded within a socio-cultural context and influenced by psychosocial as well as structural factors. Their model included a micro, meso, exo, and macro level, with the latter two considering the social/economic background, including family, community, and national curriculum as well as facets of culture, digitalization, and policies.

The community of inquiry, a constructivist collaborative learning framework (Garrison et al., 2010; Garrison et al., 1999), highlights the interplay between lecturer, social and cognitive presence to encourage deep learning in online environments. However, such models of online learning need to consider the role of the country context. Scholars that have discussed the role of culture in online education have mostly relied on models describing national culture. Studies regularly refer to the cultural dimensions identified by Hofstede (1980), with a focus on the dimensions of individualism, collectivism, and power distance. Cultural values of collectivism and high power distance are more prevalent in many Asian societies, such as Thailand, as compared to individualistic and low power distance societies, more common in Western contexts, such as Germany (Hofstede, 2011). Power distance, which has been defined as the extent to which members of a society accept and expect power differences and collectivist value orientations, which emphasize the importance of group goals and the well-being of the group, may influence the role of lecturer and social presence in engagement.

While Hofstedes' model is among the most cited and well-known in the context of cross-cultural research, it can be perceived as limiting as it generalizes by comparing cultural values across different country contexts. Values of power distance, for example, may not be expressed in the same way across regions, such as in Western as compared to Eastern contexts. Constructivist learning theories stress the importance of students actively designing their learning, supported by positive teacher-student interaction, such as when giving constructive feedback (Martin and Bolliger, 2018). However, across different high power distance societies, characterized by a focus on teacher-centered instruction (Hofstede, 2001), such interactions may express differently.

Local cultures can have their unique way of reinforcing particular cultural values. Cultural psychologists have used frameworks, such as social representation theory, to explore how representations form through communication in their respective cultural contexts. Anchoring, for example, defined as a mechanism where new ideas or phenomena are related to the already known phenomenon, can provide a better understanding of cultural dynamics (Moscovic, 2001). Qualitative research can help to explore how cultural values are expressed across country contexts and influence members of a particular society in online learning environments.

Furthermore, various subcultures also exist within one national context. Scholars have highlighted the danger to view culture categorically with all members of a community being alike, sharing beliefs, values, and practices, or as a static structure rather than focusing on a process with an ongoing and multifaceted meaning-making in sociocultural contexts (e.g., Duveen, 2007). For example, values can differ across regions, socio-economic groups, and groups with different access to education and can be further influenced by the emergence of new technologies. Scholars have referred to digital or hybrid cultures describing how cultural values

can be differently expressed and experienced in online spaces as compared to face-to-face learning (Guawardena et al., 2008). For example, playful elements in online space have been found to neutralize power relations (Song & Yuen, 2008). Furthermore, educational cultures, institutions, and attitudes of lecturers can influence students' attitudes and engagement.

Engagement in online learning in the cultural context of Germany and Thailand

While research that explores the country context can help to expand models of learning, according to review studies, research on student engagement and technology-supported learning has been mainly conducted in the USA, UK, Taiwan, Australia, and China (Bond et al., 2020). Though East Asia has received some attention, research on the less-developed Southeast Asia that explores the role of the country context in online learning in-depth is needed. Thailand, a country in Southeast Asia, has been identified as one of the most feminine societies in the world with strong values of social harmony, collectivism as well as power distance, typical for the majority of Southeast Asian countries. These values have been reinforced by religious beliefs, with 94 percent of the population being Buddhist, nationalism as well as the monarchy (Komin, 1991). While studies have highlighted that values of collectivism can support collaborative online learning in Southeast Asia (Grothaus & Zawacki-Richter, 2020), student-centered learning and self-directed studies may conflict with value orientations of collectivism and power distance. On the other hand, an increasing use of media in countries such as Thailand can lead to the emergence of cybercultures, where cultural values may express differently in online spaces than face-to-face on campus. According to a report titled "Digital 2020: Global Digital Overview" (Kemp, 2020), Thailand was ranked first worldwide, spending more than 9.11 hours per day online, with 3.11 hours on social media.

A mixed-method study (2021) assessing 389 Thai university students' perceptions of engagement, showed that those who actively contributed to their learning demonstrated the highest engagement levels. However, some students who participated in observational activities, such as viewing videos, were still highly engaged, regulated, and self-driven. Imsa-ard (2020) studied perceptions of online learning of 310 Thai university students. The majority of students disagreed that online learning would enhance the quality of learning and support communication between instructors but believed that it supported learning autonomy. Poondej and Lerdpornkulrat (2020) found high levels of satisfaction and interaction with gamification elements of an e-learning course among 104 Thai undergraduate students, which were suggested to be used to counter a possible lack of motivation during self-directed learning. While these studies show that self-directed learning may be challenging some country contexts and the possible role of technologies, there is a lack of qualitative investigations on how cultural value orientations could influence online learning behavior and perceptions.

A systematic review study (Bond et al., 2020) on student engagement and educational technology identified 7.3% of 243 studies originating from Europe, with only one study conducted in Germany. Another systematic review in the field of arts and humanities identified studies in East Asia and Europe (Bedenlier et al., 2020) but none in Germany. The authors recommended that regions such as continental Europe require further investigation, as learning would be rooted in cultural contexts. While individualistic cultural values in countries like Germany (Hofstede, 2011) may support self-directed learning, cybercultures and institutional contexts further play a role in online learning. The "Index of Readiness for Digital Lifelong Learning" placed Germany in the last rank, pointing at an under-investment in digital infrastructure and skepticism towards digital technologies (CEPS, 2019). A study comparing

Thai and German higher education students' use and acceptance of digital media (Author et al., 2021) revealed a preference for and more frequent use of entertainment media and collaborative tools among Thai learners and higher acceptance of office tools as well as fewer study related tasks performed via social media among German students.

Qualitative studies need to follow quantitative efforts to explore how differences in media across countries possibly influence engagement to support conceptualizing of online learning engagement across different country contexts. Review studies show a majority of studies on engagement and educational technology are of quantitative nature, particularly studies conducted in Asia (Bond et al., 2020). Among the few qualitative studies, Arndt et al. (2020) assessed 52 student surveys and 17 instructor surveys at higher education institutions in Germany that reflected online learning perception and experiences admits the onset of COVID-19 in Germany with findings showing how workload, communication, and prior experience can influence online learning perceptions. Existing qualitative studies focus on one country only and further neglect to explore the possible influence of the environment. Qualitative research can shed light on engagement in complex learning environments (Shewmaker & Nguyen, 2017), considering the interaction of students with their lecturers, technology, and peers in their country contexts.

This study shall fill this gap by exploring engagement in online learning among Thai and German students qualitatively, focusing on the role of instructors, peers, the learning environment, and technologies. While the study explores differences across the two groups, it is important to highlight that it does not aim to generalize findings or establish cause and effect but rather aims to suggest how certain cultural values, if present, could potentially influence online learning. It shall also consider the role of different types of culture, such as national, local, and cybercultures. The study addresses the following questions:

1. How do Thai and German students perceive online learning and engage, considering behavioral, cognitive, and affective engagement?
2. What role do instructors, peers, tools, and the learning environment play in student engagement across the two groups?
3. What are differences and similarities in engagement in online learning across groups and how could these be possibly related to the country and cultural context, considering the role of national, local, and cybercultures?

Method

Research Design and Participants

The qualitative approach of this study was chosen as it allowed for exploring engagement and possible differences across the two student groups in-depth, considering the role of the online learning environment and that of the country context. Braun and Clarke (2006) described thematic analysis as a method useful for exploring diverse perspectives, similarities, and differences, as well as for gaining unexpected insights. A thematic analysis was chosen as a method of qualitative data analysis to uncover, analyze, and report patterns in textual data emerging from the interviews with help of a clearly defined step-by-step process (Braun and Clarke 2006). The principal researcher conducted in-depth interviews with nine German Bachelor students (one male, eight females) and 11 Thai Bachelor students (two males, nine females), aged 18–23, from July to August 2020, as classes had just started with online instruction due to the outbreak of COVID-19. Thai students came from two international colleges and one local college with majors in social sciences, natural sciences, media studies, business studies, and medical science. German students came from four different universities,

studying educational science, tourism, philosophy, business studies, and natural sciences. Two Thai international colleges and three German universities used their own internal Learning Management Systems. Since in Thailand international colleagues make up an important part of the academic landscape but are, at the same time, mainly attended by a higher socio-economic income group due to higher study fees, both international and local colleagues were chosen. This way the researcher could pay attention to potentially different types of media being used across institutes as well as possible cultural differences. As international colleagues are not as characteristic of the academic landscape in Germany, local universities were chosen. A number of different universities as well as different majors allowed the researcher to explore a variety of tools and instruction methods applied. Thematic saturation was reached after 20 interviews were conducted, with no new concepts emerging in the data.

Data Collection

The researcher announced the project in German and Thai universities and asked lecturers to share the study announcement. Additionally, snowball sampling was applied as students who took part in the interviews identified other potential study participants. While referrals can be a quick and reliable way to identify participants, the limitation of this sampling approach was that it led to a sample with female students being overrepresented. Participants were provided with information about the aim of the study and its procedure. They were informed that they could interrupt the study at any time as well as that neither their name nor any information that could identify them would be disclosed. The research project was approved by the Ethics Committee of the International College.

An interview question guideline was developed with a set of general questions addressing students' attitudes towards online learning, their experiences, feelings as well as challenges associated with online learning. Further questions were organized into categories covering engagement and the role of relationships between students and lecturers, students and technology, and peer relations. These questions considered different types of engagement. For example, to explore behavioral engagement, questions addressed communication with peers and lectures as well as performance. Questions further covered characteristics of online learning, such as synchronous and asynchronous as well as collaborative forms of learning. Before interviews were conducted, 10 Thai students (different from those interviewed) volunteered to participate in pilot interviews to reflect on how questions were understood as to then adapt them accordingly. Forty-five to sixty-minutes long semi-structured interviews were conducted in German and English with help of videoconferencing.

Data Analysis

The thematic analysis research design (Braun & Clarke, 2006) allowed to capture meaning within textual data sets with help of a stepwise and systematic framework of data analysis. The author transcribed interviews and uploaded data sets to the qualitative data analysis software MAXQDA. Transcripts were read with the main research questions in mind, focusing on differences (and similarities) in engagement during online learning across the two groups of students as well as the role of the lecturer-student relationship, peer exchange, and the cultural context. Passages in the text were coded inductively by openly looking at meaning within the data sets, as well as deductively, relating data to existing concepts, such as those of previously researched cultural value orientations. MAXQDA helped to identify and organize codes and related text passages as well as to aggregate codes several times to be able to build and name

overarching themes and subthemes. Finally, text passages that belonged to each theme were downloaded via the system and summarized to then write up the results section of the paper. Selected quotes were later translated into English. As the author had spent more than 10 years in Thailand as a university lecturer at the point of data collection, to prevent biases, the author paid attention to staying self-critical during the entire research process, being conscious of and taking notes of her internal and external dialogue.

Findings

Engagement and the Role of Classmates and Peers

Social presence and support on engagement—The role of the year of study and type of media

Students across groups described how online learning felt less exciting due to the lack of exchange and physical presence of other students. A German student (21, female) elaborated: "What is extremely missing, in uni you sit down at some desk and meet people, also new people you get introduced to. You live in your own little world with only few people in there. Studies become much less exciting."

The year of study affected the need for exchange with other students differently across the two samples. Only German students centered their responsibility in organizing their entry to university. German institutions required more student initiative to organize their first year of study. Students missed opportunities to exchange with students and lecturers to support the process. Thai students did not highlight such challenges. Both groups shared how, in their last year of study, they could not spend time with others and were thus not able to properly finish a chapter of their life.

Further, the type of media used to connect with classmates influenced engagement across samples differently. Only Thai students shared how connecting via messenger applications and social media helped them to deal with feelings of isolation. German students highlighted the need for privacy. They mostly communicated with friends they were already connected with via social media. German students had much less time organized synchronously and more frequently left their camera turned off and felt consequently more disconnected. Breakout room discussions helped to increase social presence, which increased affective engagement across groups. A Thai student (23, female) shared: "We worked but we also need to talk, you know, like 'how are you, how was your holiday' and stuff. Online it is important that we have that extra time to connect."

Group work—Initiating contact and involvement with the task on affective engagement

Only German students highlighted challenges when collaborating with classmates on assignments. They mostly communicated via email, particularly with classmates they did not know well, and felt frustrated, tired, and disengaged as work did not progress quickly enough or as they had to finish tasks by themselves. On campus, it was easier for them to connect with students they did not know well. Thai students, on the other hand, used various tools, particularly messenger applications, as well as collaborative writing tools, and did not mention any such communication challenges.

Students across groups referred to feelings of "trust," "comfort," and "connectedness" when exchanging in smaller groups in breakout rooms during videoconferences, which, they said, improved their collaboration and increased overall engagement. While Thai students related engagement more often to social exchange when collaborating, German students highlighted the effectiveness of collaboration and deep learning experiences as engaging.

Concerns about what classmates feel and think and engagement in voicing behavior

Only Thai students frequently expressed concerns about how they were perceived by their classmates as well as how their actions, such as when speaking up in class, may affect classmates' feelings. Several Thai students refrained from speaking up in the main videoconference room as they tried to prevent taking other students' chances to voice their ideas. In breakout rooms they were less concerned about interrupting each other, as verbal contributions were not graded, and they would thus not risk taking other students' participation points. One Thai student (20, female) emphasized how she spoke up more frequently online. On campus, she felt judged when standing out, which she experienced less so when studying online as she did not feel the presence of her classmates as much. Being the center of attention was described as selfish. Some Thai students referred to Thai cultural values to be polite and considerate to explain their behavior:

> 'Kreng jai' (เกรงใจ) in Thai means when you meet or talk to people, there is this urge to be polite. It's not just lecturers, it's for everyone. Online people do not speak up a lot. Maybe they want it too but if I talk a lot, other students that are willing to share their opinions, they might stop doing so because of me (21, female).

Thai students further shared how it was easier on campus to speak up as others provided words of encouragement or one could assure with others if an answer was correct. One could see who was willing and ready to speak, observing each other's body language. A Thai student (20, female) shared how she preferred to know whether her classmates were listening to her as she spoke, which was more difficult online. Other Thai students stressed how they spoke up more regularly on campus as it was easier to concentrate, observing others who also paid attention. German students did not mention the importance to consider others' feelings and to read body language to be better able to respond to those feelings.

Engagement and the role of the lecturer
The role of seeing and exchanging with lecturers synchronously in affective engagement

Many German students described online learning as less engaging as they did not see lecturers or exchange with them often enough. Much of their learning was organized as asynchronous self-study or videoconferences with less interactive work. Thai students on the other hand were required to take part in weekly synchronous videoconferences and breakout room sessions. A German student (20, female) shared: "The lecturer spoke his 90 minutes and showed us his script on the screen. In the end he just said: 'Does anyone have any questions?' On campus, we were more encouraged to engage." On the other hand, while several German lecturers offered synchronous sessions to guide self-study, many students did not attend those. A German student (19, female) shared how on campus she would skip classes less often. She felt, as she had already made the effort to commute to campus, she should also attend classes. Further, German students experienced asynchronous communication with lecturers via email or forums as slow and frustrating and hesitated to contact their lecturers as they did not want to interrupt their private time, especially if they taught classes with multiple hundreds of students. Such were not offered in Thailand. A German student (20, female) described self-studying as "nerve-wracking and tiring." One would have to "always research and work out everything by oneself."

Some Thai students stressed how regular videoconferences were necessary, particularly in Thailand, referring to a more teacher-centered learning approach and culture. A Thai student (19, male) shared that it took him a few days to adapt to the videoconference environment. After that, it would feel to him as if he knew his lecturers as much as he did on campus. He, however, shared how, if lecturers did not engage students to speak up, it felt more disconnected and as if "one was watching a video." Thai lecturers also encouraged the use of messenger groups, which they sometimes joined. This was not the case among the German students, who stressed the importance of privacy and data protection in Germany.

The role of lecturer presence and authority in behavioral engagement—Voicing behavior, camera use, and self-study

Voicing behavior, as a form of behavioral engagement, overall decreased in online settings as compared to face-to-face learning. Students mentioned that speaking up during videoconferences in the main forum felt "less required" and that they felt "less pressured." Only Thai students, however, referred to the reduced power of the lecturer as an authority figure, which could be expressed more so in face-to-face settings:

> On campus, in the classroom, you have to be there fully, your whole self is present. You know the lecturer might look at you, like in your eyes, and come to you and then you might have to answer, or you might have to listen because it's the environment where you see everybody is listening. At home, you're alone in front of the screen. (Thai, 22, female)

Students across groups preferred their lecturers to encourage or assign them to share ideas during video conferences. Thai students highlighted how lecturers asking them to use a virtual indicator, such as the symbol of a hand, increased participation. This way they did not have to worry about taking someone's turn. Students across groups would approach lecturers less often after class if in online settings, as they often logged out as classes were finished. If they stayed to answer questions, other students would stay and listen, which made it less private.

Students also reacted differently to the presence and authority of the lecturer in online breakout rooms. Thai students emphasized how it was often silent in rooms students were assigned to for discussions until the lecturer joined, then they would start to speak. In contrast, German students described the opposite, emphasizing how they felt more relaxed and motivated to talk to each other if the lecturer was not in the breakout room. Only Thai students highlighted the importance to read the body language of the lecturer to identify when they could or should speak up.

Students also responded differently to the authority of the lecturer when being asked to open their cameras. A German student (19, female) shared: "If the lecturers asked us openly at the beginning of class to open the camera and really stressed how they would appreciate this, then there are always one or two people who actually really do this." However, while Thais more readily opened their cameras, some Thai students felt surprised that many classmates did not do so, despite lecturers encouraging them. A Thai student (21, male) reported how students would use a picture to pretend their camera was turned on or tilted their camera so that their face was not visible. A few Thai students referred to a change in power dynamics as compared to on campus learning and associated such with the anonymity of the online space:

As a Social Science student, I think about power structure and sense of surveillance. I heard friends saying how everyone was so visible and you can pick up who is paying attention and who is not. Maybe the entire class is being recorded and they are going to go back and look if anyone is misbehaving. Technology has evolved. I don't think anyone takes this seriously here in Thailand, except maybe social science students.

Considering the role of cognitive engagement, only German students referred to learning as a reward. A Thai student (20, female) emphasized how online learning could have potential, if students were able to motivate themselves, which she doubted was possible. She stressed how students may likely not address the lecturer if they did not understand what they had studied by themselves at home, referring to the mentality of students in Thailand:

I can already sense that some students would not study by themselves and then can't participate in discussions. It's a general thing here. We gather and are like "oh did you read the handout" and they say no and it's a funny thing. They are proud of that. It's more like a joke, like they would say: "Of course I didn't read it why would I read it. I have my own life."

Engagement and the role of learning technologies
Tools to support self-study and engagement—Time intensive but at one's own timing
Thai students more readily used different tools and digital media. A Thai student (23, female) shared: "The normal way we take notes here is with our iPad. We use it like a paper. We put all class files on the iPad and then write on it." In contrast, a German student (21, female) referred to her math class. She used to insert her exercise sheet into a lecturers' wooden mailbox on campus. Now she needed to conduct math exercises in an online program: "I feel this is much more exhausting and takes double as long. Now I am doing all of this with my computer instead of a simple piece of paper." Only German students mentioned that the closing of the library slowed them down and affected their performance. Thai students were used to receiving digital files from their lecturers or to research information online.

Students across groups felt exhausted if they had to handle many different unfamiliar applications that took more time and led to confusion. Discussion forums, wikis, and lecture recordings were mostly appreciated, allowing students to view content at their own speed and to learn from written contributions of classmates. Staying on track positively affected affective engagement. However, particularly German students, who felt more compelled to take detailed notes, felt disengaged as video lectures increased their study time, as they could now write down all lecture details.

Videoconference meetings on performance—Following class content, resisting distractions and participation
The majority of students appreciated video conferences. Hearing, seeing, and talking to classmates synchronously and guided by the lecturer was positively associated with participation and performance. However, particularly Thai students, who attended weekly required video conferences, reported difficulties to focus over extended periods of time and to resist distractions, using their phones during lectures for non-related class content. A Thai student (20, female) described: "Online it's different. If someone says a really long sentence, I will stop in the middle of the sentence, just stop paying attention." Another Thai student (21, male) shared: "It is

difficult to concentrate. Then you just end up doing something else. Someday I'll just zone out in the middle of the lecture and lose track." Some students shared how the same time period online as compared to face-to-face on campus was experienced as longer. Distractions made students lose track, which in some cases decreased performance and affective engagement.

Several students felt more encouraged to respond via online chat during video conferences than to speak up, which was particularly the case among German students in the case of large lecturers with multiple hundreds of students. Such large classrooms were not organized in Thai university settings. A German student (24, female) elaborated: "As you type, you are somehow braver. Like sitting with 150 students in a lecture hall, I ask less because I think maybe someone will look at me thinking that I am stupid."

Use of the camera on engagement—Feeling connected, observed, and exhausted

Students experienced the use of the camera as inconvenient, referring to: "Lack of privacy"; "needing to dress up"; "not looking good in the morning"; "having to be organized"; "feeling observed"; "observing oneself"; "less flexibility to do other tasks" and "less anonymity." A German student (20, male) described the challenge of being in the center of attention: "It felt like holding a speech to 200 people and everyone stares at you. This is worse if the cameras of others are turned off." While many Thai students used their phone more often during online classes, a German student (19, female) described how in a large classroom on-campus she would eat or use her phone as she could hide but online with the camera on, she refrained from doing so. Only Thai students regularly referred to the experience of "monitoring" themselves, which led to exhaustion and lower levels of concentration. A Thai student stressed: "I am fine seeing other peoples' faces but I don't want to see my face. I see it every day anyways." Not knowing who was looking at them, Thai students described as stressful.

Despite negative experiences related to camera use overall, the camera engaged students more than that it didn't. Students described how it felt "less lonely," "more real," "exciting," "connected," and "almost like in an actual classroom." They could better follow speakers and consequently stayed engaged. Only Thai students pointed out how their lecturers' body language helped them to understand how they performed. A Thai student (20, female) shared: "If I do not see the lecturer I do not know if he is satisfied with my answer or if he is maybe confused about what I say or if he wants to move on to the next topic. Also, if the lecturer looks at me, I feel supported. Another Thai student (21, female) shared:

> The lecturers don't know what we don't know, and we don't know how to tell them what we don't know because like the nonverbal cues. In class they can look at our face and go like "oh ok, so like 90% of students in class don't know what I'm talking about." If we stay quiet, it can be because we already understand and we want them to move on or because we are confused.

The role of the learning environment in engagement—Distractions, flexibility, and structure in self-directed learning.

Overall, German students described learning experiences more vividly than Thai students as they referred to advantages and disadvantages of online learning. Lectures would "shoot at them with tasks" and studying online was experienced as "the absolute horror" or as "super nice," "exciting," and "fun." Some Thais emphasized how online learning, as compared to on

campus studies, would be "clearly inferior." Only one Thai student expressed excitement about the flexibility of online learning.

Challenges—Structuring tasks, managing time, and dealing with interruptions

Students across groups described how they felt "tired," "exhausted," and "drained" when organizing their studies by themselves. Thai students had generally less time allocated for self-study, and regular synchronous video lectures were required. They emphasized how in Thailand clear lecturer guidance was necessary students and that homework would otherwise often not be completed. Germans referred to feelings of being overwhelmed with an increased workload, less support, and expectations of independent studies:

> I got this script with 200 pages, videos, articles but no starting point. There is much information to process. At some point you did not feel like studying anymore. It's this idea of independent learning here in Germany but online we do need support. (20, female)

Several German students shared how they needed more structure, deadlines, and guidance. A German student (21, female) struggled to allow herself to take breaks:

> I would have sat a whole day in uni too but there you talk to friends and have a longer lunch break. When I sit by myself than I do only these things. I don't talk to myself in between. At some point I decided that this does not work like this. I can't study 10 hours per day without a break or even for 8 hours.

Thai students more often referred to being distracted at home using their phones and computer to view and interact with non-class related content. They watched YouTube videos, played games, and checked their social media accounts. As work piled up, they felt less productive and kept procrastinating, which frustrated and exhausted Thai students and decreased cognitive engagement. A Thai student (22, female) stressed: "I kept everything until the last moment and by the end of the term I had like literally no grind whatsoever, no motivation. I was just doing it for the grades. I think I didn't learn much. It was bad."

Only Thai students regularly referred to the influence of the immediate and extended family, who distracted them, spending much time in the same room or expected them to perform certain duties, which slowed them down. A Thai student explained: "When I study, there are many people around me. Sometimes my mom calls me. Like sometimes I have to cook something for my sister. At home, like I can't only study. I also have to some things for the family." Another Thai laughed as she described:

> When I study at home, I have my family. I have my mother and my aunt, who want to stay with me in my room so I can't concentrate on the teacher. I tell them to leave but they don't care. They always come to my room because they want to be near me.

Advantages—Flexibility in managing schedules and the need for structure

Several German students but only one Thai student shared excitement about the flexibility to structure one's time and tasks as well as to save time commuting when studying online. They felt excited about being able to manage their own schedules as they could study at their own pace and were responsible for distributing their workload over the course of the semester. A German student (20, male) shared how his friends "loved online learning so much"

that they considered changing their program and potentially the university to study a major that would be offered fully online.

A German student (21, female) emphasized how much she enjoyed self-study, particularly one class for which her lecturer had provided them a clear structure and engaged them with help of a learning path with a completion bar. Another German student (19, female) shared how she, already as she studied on campus, audio-taped class content as she could not take notes quickly enough. Now she would not need to go to campus to get these, which saved her time and felt like "a significant improvement."

Many students appreciated prerecorded video lectures. However, a German student (23, female) stressed that this way they had to spend double as much time studying, as they now watched lectures and attended live classes. Another German student (19, female) elaborated: "Now with these posted videos during the online trimester you can just take so much more notes. You try to write down every little detail in these videos. That just made if feel like so much more work." Furthermore, lectures were now more condensed as they did not include any informal talk and breaks.

Discussion

This study explores engagement of Thai and German university students studying online, considering the role of relationships between students as well as students and lectures and of technologies. Behavioral, cognitive, and affective engagement, as part of the engagement construct (Moore et al., 2009; Perez et al., 2018), were addressed. The study aims to shed light on the possible role of national, institutional, and cybercultures in engagement in online learning by exploring how values, attitudes, and behaviors related to online learning differed across the two samples. However, while exploring differences across groups, this study does not attempt to predict that these differences in online learning are to be led back to cultural contexts.

Findings revealed how challenges in collaborative work when organizing group projects outside of videoconferences negatively affected social and affective engagement of German students, who felt tired and less excited about their studies. They reported increased frustration, having to finish work by themselves whilst feeling inhibited to initiate contact with unfamiliar classmates via messenger applications. Thai students did not report such challenges. While scholars have highlighted social engagement as a key characteristic of online learning and as part of the engagement construct (Fredricks et al., 2016), this studied showed how social engagement differed across the two samples.

Cultural values of collectivism, as well as the familiarity with communication tools, may have encouraged Thai students to use various tools and to initiate contact to organize self-directed group work. Review studies on online learning in the context of Southeast Asia (Grothaus & Zawacki-Richter, 2020) have highlighted the role of teacher-centered education with stronger values of power distance in countries such as Thailand. While scholars have frequently described Asian learners as rather passive (e.g., Kwok, 2004), scholars have also highlighted that such fixed ideas about how students learn can prevent lecturers and researchers from exploring student-centered learning in these cultural contexts (Pham & Renshaw, 2013). Findings of this study showed how Thai students were proactive in organizing group work without the support of the lecturer. This may be explained by taking a closer look at the possible role of culture. Studies discussing culture in online learning frequently refer to Hofstedes' cultural dimensions (2011). However, the potential role of other cultural dimensions deserves attention. German students' hesitation to contact classmates outside of campus could be possibly

explained with Trompenaars & Hampden-Turners' (1989) concept of specific cultures (Germany), which, as compared to diffuse cultures (Thailand), value separation of private and work life more strongly. German students regularly stressed the importance not to interrupt classmates' private spheres. Further, institutional cultures may play a role in students' attitudes towards technologies, as lecturers in Germany were not allowed to encourage the use of external applications for learning. Lastly emerging cyber cultures, with German students being more hesitant to use general web tools for learning than Thai students, seemed to reduce the influence of cultural individualistic values on the motivation and ability to conduct self-study among German students.

Review studies (Grothaus & Zawacki-Richter, 2020) show how scholarly work discussing the role of culture in online learning has focused particularly on Hofstedes' dimensions of collectivism and power distance and less on the dimension of femininity. Feminine cultures have been identified particularly in the region of Southeast Asia, with Thailand being among the most feminine cultures in the world (Hofstede, 2011). While feminine cultural values, which have been associated with Thai students' motivation to connect and to maintain social harmony, seemed to positively affect collaborative work outside of live classes, verbal exchange during videoconferences as a form of behavioral engagement decreased. Thai students emphasized challenges of a lack of body language and informal talk with classmates, which they deemed necessary to confirm answers before speaking up. Lower levels of competition as a characteristic of feminine cultures and the aim to maintain harmony, may have influenced students' concerns about affecting classmates' feelings when risking interrupting them or to take their attendance points.

A number of recent studies (Chaiyasat & Intakaew, 2022; Chung, 2021; 2022; Hongboontri, et al. 2021) have explored the role of silence among Thai students as well as the influence of culture. Chung (2021) found that while Thai students often remained silent, they did not see themselves as passive but as students who attentively participated. Silence was described as an effective way to save face by avoiding judgment and to maintain harmony, values that were associated with Thai culture. Furthermore, silence was seen as a strategy to organize their thoughts to deeply comprehend, which can be associated with cognitive engagement. Such findings need to be reflected in the online cultural context. As this study showed, Thai students stayed silent, and thus showed less behavioral engagement, as they felt challenged to read each other's body language, and lacked opportunities for informal talk with classmates, which they deemed necessary to confirm answers before speaking up. Reading each other's body language would help them to maintain harmony and save face.

Hall & Hall (1990) highlighted the importance of body language in low context cultures, such as Thailand, to maintain relationships. According to Hall & Hall, members of high-context cultures pay attention not only to the words spoken but particularly to interpersonal relationships, nonverbal expressions, as well as physical and social settings. The context must be understood before members start to communicate. Moreover, cognitive engagement was challenged in cases when students could not concentrate and follow along and got more distracted, which they said was particularly the case when studying online. However, Chung (2021) suggested encouraging students to write out their thoughts as an alternative way to participate in class. In the online context, chat functions during video conferences supported students to participate without needing to speak up.

German students, on the other hand, only referred to concerns about affecting classmates in cases where they did not want to invade private spheres. Further, the size of the classroom also

played a role in voicing behavior among German students, which showed an influence of institutional contexts. While several students said participation dropped as students felt less accountable online, some stressed how in lectures with multiple hundreds of students, they participated more if conducted online than on campus, as they felt less afraid due to increased anonymity. Such large lectures were more common in German university settings. Educational staff working across borders should consider that the type of instruction can affect engagement differently.

Next to the influence of classmates on engagement in online learning, findings revealed how the lecturer played an important role. The community of inquiry model (Garrison et al., 2010) suggests lecturer presence positively affects social and cognitive presence, which encourages deep learning when studying online. Thai students stressed the importance of lecturer guidance and universities in Thailand organized significantly more time for synchronous videoconference meetings. While Germany has been identified as a low power distance and individualistic culture, focusing on student-centered instruction and independent learning (Hofstede, 2011), this study showed how too little guidance and structure negatively affected engagement of German students. This shows how national cultural values supporting independent learning on campus may not as easily translate to online learning contexts and how students thus require more scaffolding.

Furthermore, Thai students referred to the importance of the authority and presence of the lecturer in breakout rooms. Participation, as a form of behavioral engagement, often decreased as the lecturer was absent, which was not mentioned by German students. Thai students also felt they needed to see and interpret lecturers' body language to identify when they could or should speak up, which was more difficult for them in an online environment. While such differences may be explained considering the role of power distance across the two countries, scholars have also highlighted how online spaces can allow for more informal environments which can change power dynamics (Song & Yuen, 2008). This may have been the case as Thai students were surprised that many students did not comply with the lecturers' request to open their cameras. They shared how it was easier not to follow what the teacher said in online environments as it was more anonymous.

Moreover, culture needs to be also reflected as a dynamic construct that is influenced by societal changes. Recent student movements showed how student opposed the influence of the military government and monarchy and criticized power distance and rules such as those related to student uniforms (Lertchoosakul, 2021). These changes may further support reluctance to follow orders. This may have implications for lecturers in Thailand who apply a more teacher-centered learning approach and expect students to follow. Supporting intrinsic motivation instead of extrinsic approaches that rely on obeying the authority and teacher-centered learning, may positively support cognitive engagement.

Next to the influence of students and lecturers, technology and the learning environment played a role in student engagement. German students' affective engagement was influenced by an increase in self-study time and experienced lack of lecturer guidance. However, only German students associated strong affective engagement with the freedom to regulate their time and studies. Thai students highlighted how Thai cultural values for teacher-centered learning would not support self-study. Cognitive engagement increased as students used taped video lectures, which improved comprehension as they could pause and rewind. However, German students, who described themselves as eager, also reported exhaustion due to an increase in study time, as video lectures were condensed and as they could note down potentially everything.

Thai students' affective engagement decreased as they felt tired from so much screen time, self-monitoring when opening the camera, and digital distractions. As only Thai students stressed the influence of self-monitoring, it may be interesting to explore if the value of "maintaining face" and social presence in online situations could affect students differently across cultures. On the other hand, in a few cases Thai lecturers required or strongly encouraged students to keep the camera turned on, which may have influenced their response. Furthermore, Trompenaars & Hampden-Turner (1998) have identified Thailand as a polychronic culture with members handling many things at the same time, as compared to monochronic cultures, such as Germany. Findings showed how multi-tasking decreased their ability to focus and follow the lecture. Thai students more often highlighted how they used multiple applications at the same time, chatting with friends and using social media while listening to the online lecture. Thai students' cognitive engagement was further negatively affected as family members often gathered in the same room or expected students to support in the household. The majority of Thai students, who had lived in dorms near campus before, had moved back to their parents' house during online instructions. Scholars studying collectivist societies (Markus & Kitayama, 1991) have previously highlighted cultural characteristics of family members living together as well as the role of family expectations. The influence of family members on online learning needs to be considered when designing online learning in countries where students more frequently live with their families and maintaining private spheres is less important.

Conclusion

This study identified differences between Thai and German university students in affective, cognitive, and behavioral engagement when studying online. Cultural dimensions such as those of collectivism, femininity, and power distance (Hofstede, 2011) or high and low context cultures (Hall & Hall, 1990) as well as institutional and cybercultures may likely explain some of these differences. Follow-up studies could explore certain findings further in-depth, such as the role of family members in online learning engagement or the concern about affecting classmates' feelings in collectivist and feminine societies. Furthermore, future research could consider the possible role of the field of study, which was not centered in this study but may have influenced factors, such technologies and instructional methods used for online learning.

Findings can support practitioners across country contexts. Lecturers and institutions who decide to organize self-directed learning, may need to rethink how to do so in different cultural environments. For example, lecturers could support the use of various tools and guide with initiating contact to support students from individualistic country contexts and members of specific cultures as well as consider the role of distractions among students with polychronic orientations. Further, the institutional context and methods applied, such as instruction in large lecture halls, which were more frequently organized in Germany universities, should be considered. For example, German students felt more encouraged to participate online, such as when sharing questions in the chat during lectures conducted with more students. Lastly, there are limitations to this study that should be addressed. As data was collected during the outbreak of COVID-19, when social distancing policies were introduced and students experienced several changes in their lives, these may have influenced their behavior and attitudes towards online learning. Furthermore, while this study suggested possible cultural explanations to explain differences in engagement across samples, qualitative research cannot confirm such relationships. This study aimed to consider the complexity of culture, including national, local,

institutional, and cyber-cultures. However, one needs to acknowledge the limitation that comes with assigning cultural characteristics to groups, such as those defined by national borders.

Declarations
The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

The authors received approval from the ethics review board of Mahidol University, Thailand for this study.

References

Ashwin, P., & McVitty, D. (2015) The meanings of student engagement: Implications for policies and practices. In A. Curaj, L. Matei, R. Pricopie, J. Salmi, and P. Scott (Eds.), *The European higher education area: Between critical reflection and future policies* (pp. 343–359). Springer.

Bedenlier, S. & Bond, M., & Buntins, K., & Zawacki-Richter, O., & Kerres, M. (2020). Facilitating student engagement through educational technology in higher education: A systematic review in the field of arts and humanities. *Australasian Journal of Educational Technology*, *36(4)*, 126–150. https://doi.org/10.14742/ajet.5477

Binali T., Tsai, C., & Chang, H. (2021). University students' profiles of online learning and their relation to online metacognitive regulation and internet-specific epistemic justification. *Computers & Education*, *175*. https://doi.org/10.1016/j.compedu.2021.104315

Bond, M. (2020). Schools and emergency remote education during the COVID-19 pandemic: A living rapid systematic review, *15(2)*. 191-247. https://doi.org/10.5281/zenodo.4425683

Bond, M., & Bedenlier, S. (2019). Facilitating student engagement through educational technology: Towards a conceptual framework. *Journal of Interactive Media in Education*, *1*, 1–14. https://doi.org/10.5334/jime.528

Bond, M., Buntins, K.. Bedenlier, S., Zawacki-Richter, O., & Kerres, M. (2020). Mapping research in student engagement and educational technology in higher education: A systematic evidence map. *International Journal of Educational Technology in Higher Education*. *17*, 1–30. https://doi.org/10.1186/s41239-019-0176-8

Chaiyasat, C., & Intakaew, A. (2022). Why keep silent? Voices from Thai EFL students in an English-medium instruction university. *Asian Englishes.* https://doi.org/10.1080/13488678.2022.2080426

Case, J. M. (20Case, J. M. (2008). Alienation and engagement: Development of an alternative theoretical framework for understanding student learning. *Higher Education*, *55*(3), 321–332. https://10.1007/s10734-007-9057-5

Chen, L., & Guidry, K. (2010). Engaging online learners: The impact of Web-based learning technology on college student engagement. *Computers & Education,* *54*(4), 1222–1232.

Chung, Ji. (2021). "We participate, silently": Explicating Thai university students' perceptions of their classroom participation and communication. *Qualitative Research in Education*, *10*(1), 62–87. https://doi.org/10. 62. 10.17583/qre.2021.7159

Conrad, D. L., (2002) Engagement, excitement, anxiety, and fear: Learners' experiences of starting an online course, *American Journal of Distance Education*, *16*(4), 205–226. https://doi.org/10.1207/S15389286AJDE1604_2

Englund, C., Olofsson, A. D., & Price, L. (2016). Teaching with technology in higher education: understanding conceptual change and development in practice. *Higher Education Research & Development*, *36*, 1–15. https://doi.org/10.1080/07294360.2016.1171300

Fredricks, J. A., Filsecker, M., & Lawson, M. A. (2016). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction, 43,* 1–4.

Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *The Internet and Higher Education. 13*(1), 5–9. https://doi.org 10.1016/j.iheduc.2009.10.003

Garrison, R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *Internet & Higher Education*, *2*(2–3), 87–105. https://doi.org/10.1016/S1096-7516(00)00016-6

Granberg, C. (2010). Social software for reflective dialogue: Questions about reflection and dialogue in student teachers' blogs. *Technology Pedagogy and Education*, *19*(3), 345–360. https://doi.org/10.1080/1475939X.2010.513766

Grothaus, C. & Zawacki-Richter, O. (2020). Collaborative online learning in the cultural context of South East Asia: A systematic review. *Hacettepe University Journal of Education*, 1–20. https://doi.org/10.16986/HUJE.2020062020

Grothaus, C., Dolch, C., & Zawacki-Richter, O. (2021). Use of digital media in higher education across country contexts: A comparison between Germany and Thailand. *International Journal of Emerging Technologies in Learning (iJET)*. *16*(64). https://doi.org/10.3991/ijet.v16i20.24263

Hall, E. T., & Hall, M. R. (1990). *Understanding cultural differences: Germans, French and Americans*. Intercultural Press.

Heflin, H., Shewmaker, J., & Nguyen, J. (2017). Impact of mobile technology on student attitudes, engagement, and learning. *Computers & Education, 107,* 91–99. https://doi.org/10.1016/j.compedu.2017.01.006

Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede Model in context. *Online Readings in Psychology and Culture*, *2*(1). https://doi.org/10.9707/2307-0919.1014

Hongboontri, C., Wittaya, I., & Boonyaprakob, K. (2021). Silence in an EFL classroom: The interplay of Schwab's four commonplaces. *Suranaree Journal of Social Science*, *15*(1), 128–146. https://doi.org/10.55766/BHCD3404

Ikpeze, C. H., & Boyd, F. B. (2007). Web-based inquiry learning: Facilitating thoughtful literacy with WebQuests. *Reading Teacher, 60*(7), 644–654.

Kahu, E. R. (2013). Framing student engagement in higher education. *Studies in Higher Education*, *38*(5), 758–773. https://doi.org/10.1080/03075079.2011.598505

Kahn, P. E. (2014). Theorising student engagement in higher education. *British Educational Research Journal*, *40(*6), 1005–1018.

Karabulut-Ilgu, A., Jaramillo Cherrez, N., & Jahren, C. T. (2018). A systematic review of research on the flipped learning method in engineering education. *British Journal of Educational Technology, 49*(3), 398–411.

Kemp, S. (2020). Digital 2020: Global digital overview. https://datareportal.com/reports/digital-2020-thailand

Klemenčič, M. (2017). From student engagement to student agency: Conceptual considerations of European policies on student-centered learning in higher education. *Higher Education Policy, 30*, 69-85.

Komin, S. (1991), *Psychology of the Thai people: Values and behavioral patterns*, Research Center, National Institute of Development Administration (NIDA).

Kwok, P. (2004). Examination-oriented knowledge and value transformation in east Asian cram schools. *Asia Pacific Education Review*, *5*, 64–75.

Lertchoosakul, K. (2021). The white ribbon movement: High school students in the 2020 Thai youth protests. *Critical Asian Studies*, *53*(2). https://doi.org/10.1080/14672715.2021.1883452

Martin, F., & Bolliger, D. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning Journal*, *22*, 205–222. https://doi.org/10.24059/olj.v22i1.1092

Martin, A. J., & Dowson, M. (2009). Interpersonal relationships, motivation, engagement, and achievement: Yields for theory, current issues, and educational practice. *Review of Educational Research*, *79*, 327–365.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*, 224–253. https://doi.org/10.1037/0033-295X.98.2.224

Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). E-learning, online learning, and distance learning environments: Are they the same? *The Internet and Higher Education*, *14*(2), 129–135. https://doi.org/10.1016/j.iheduc.2010.10.001

Perez, M., Ayerdi, V., & Arroyo, Z. (2018). Students engagement and learning through the development of didactic models for mechanical engineering. *Universal Journal of Educational Research*, *6*(10), 2300–2309. https://doi.org/10.13189/ujer.2018.061029

Imsa-ard, P. (2020). Thai university students' perceptions towards the abrupt transition to "forced" online learning in the COVID-19 situation. *Journal of Education Khon Kaen University*, *43*(3), 30–44. https://doi.org/10.14456/edkkuj.2020.x

Pham, T. T., & Renshaw, P. (2013). How to enable Asian teachers to empower students to adopt student-centred learning. *Australian Journal of Teacher Education*, *38*(11).

http://dx.doi.org/10.14221/ajte.2013v38n11.4

Poondej, C., & Lerdpornkulrat, T. (2020). A study of gamification concept of innovative learning. *Journal of Education Naresuan University*, *22*(2), 84–97.

Redmond, P., Abawi, L., Brown, A., Henderson, R., & Heffernan, A. (2018). An online engagement framework for higher education. *Online Learning Journal, 22*. https://doi/10.24059/olj.v22i1.1175

Reeve, J., & Tseng, C.-M. (2011). Agency as a fourth aspect of students' engagement during learning activities. *Contemporary Educational Psychology, 36*(4), 257–267. https://doi.org/10.1016/j.cedpsych.2011.05.002

Salaber, J. (2014). Facilitating student engagement and collaboration in a large postgraduate course using wiki-based activities. *The International Journal of Management Education*, *12*, 115–126. https://doi.org/10.1016/j.ijme.2014.03.006

Schindler, L., Burkholder, G., Morad, O., & Marsh, C. (2017). Computer-based technology and student engagement: A critical review of the literature. *International Journal of Educational Technology in Higher Education*, *14*. https://doi.org/10.1186/s41239-017-0063-0

Smidt, E., Bunk, J., McGrogy, B., Li, R., & Morgan, T. (2014). Student attitudes about distance education: Focusing on context and effective practices. *The IAFOR Journal of Education*, *2*, 40–64. https://doi.org/10.22492/ije.2.1.02

Song, H., & Yuen, M. C. (2008). *Educational blogging: A Malaysian university students' perception and experience*. ASCILITE 2008—The Australasian Society for Computers in Learning in Tertiary Education.

Rashid, T., & Asghar, H. M. (2016). Technology use, self-directed learning, student engagement and academic performance: Examining the interrelations. *Computers in Human Behavior*, *63*, 604–612. https://doi.org/10.1016/j.chb.2016.05.084

Trompenaars, A., & Hampden-Turner, C. (1998). *Riding the waves of culture: Understanding cultural diversity in global business*. McGraw Hill.

Trowler, V., & Trowler, P. (2011) *Student engagement toolkit for leaders*. Leadership Foundation for Higher education and Higher Education Research and Evaluation.

Reschly, A. L., & Christenson, S. L. (2012). Jingle, jangle, and conceptual haziness: Evolution and future directions of the engagement construct. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 3–19). Springer. https://doi.org/10.1007/978-1-4614-2018-7_1

Weidlich, J., & Bastiaens, T. J. (2019). Designing sociable online learning environments and enhancing social presence: An affordance enrichment approach. *Computers & Education*. *142*, 103622. https://doi.org/10.1016/j.compedu.2019.103622

Zawacki-Richter, O., & Qayyum, A. (Eds.) (2019). *Open And Distance Education In Asia, Africa And The Middle East National Perspectives In A Digital Age*. USA: Springer, SpringerBriefs in Open and Distance Education, ISBN: 978-981-13-5787-9

Zweekhorst, M., & Maas, J. (2015). ICT in higher education: Students perceive increased engagement. *Journal of Applied Research in Higher Education, 7,* 2–18. https://doi.org/10.1108/JARHE-02-2014-0022