

Impact of lecturers' emotional intelligence on students' learning and engagement in remote learning spaces: A cross-cultural study

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Higher education institutions have recently transitioned from face-to-face to online teaching and learning environments. However, academic staff lack sufficient training in applying emotional intelligence (EI) skills and strategies in online learning environments. Although literature addressing academics' EI is sparse, some studies have suggested that lecturers' EI greatly influences teaching and learning. This study used the concept of EI to understand students' perceptions of how lecturers' EI impacted their learning and engagement in an online learning environment. We conducted four online focus group interviews of 14 students pursuing a bachelor's degree at two campuses of an Australian university, one in Melbourne and the other in Malaysia. Four main themes were identified using thematic analysis. Students discussed their perceptions and experiences on (a) vulnerabilities, coping and empathy; (b) relationships with lecturers, trust and safety; (c) communication, tone and voice; and (d) managing emotions of lecturers. Our findings suggest that lecturers' EI impacted students' learning and engagement in online learning spaces. However, the impact differs between Australia and Malaysia due to cultural differences. Drawing on the findings, we present online education good practices grounded in the theory of EI. Lecturers delivering online courses should consider employing these practices for effective teaching.

Implications for practice or policy:

- Higher educational institutions need to support lecturers in developing the necessary EI skills to engage students in online learning.
- Lecturers need to make meaningful attempts to develop positive relationships with students in online forums to support students' engagement.
- Lecturers working in online learning environments need to support students to develop friendships and connections with their peers.
- Lecturers need to include regular discussion breaks during online lectures to allow students to share their opinions and experiences.

Keywords: remote learning, emotional intelligence, learning and engagement, focus group, cultural differences

Introduction

Salovey and Mayer (1990, p. 189) defined emotional intelligence (EI) as “the ability to monitor one's own and others, feelings and emotions, to discriminate among them and use this information to guide one's thinking and actions.” This model of EI consists of four branches which describe abilities relating to the following competencies:

- Perceiving emotion – consists of the ability to identify emotions in other people and the ability to express emotions accurately
- Using emotions to facilitate thought – includes the ability to appreciate multiple points of view and use emotional states to facilitate problem solving and creativity
- Understanding emotion – includes the ability to perceive the causes and consequences of emotions and to understand complex feelings
- Managing emotions – includes the ability to be open to feelings, both pleasant and unpleasant, the ability to monitor and reflect on emotions, and the ability to manage emotions in oneself and others (Salovey et al., 2012).

Although literature addressing higher education academics' EI in the online teaching and learning space is sparse, some studies have suggested that efficient teaching and learning in higher education is greatly influenced by the lecturers' EI. For example, Sundarasan et al. (2020) examined the impact of online classes on Malaysian students' anxiety and stress levels, finding that many higher education lecturers failed to recognise their students' complicated emotions, such as frustration, anger, resentment and anxiety. In another study, Kaur et al. (2019) applied structural equation modelling to propose and validate a model for EI-based teaching competencies and their relationship with higher education teaching competencies. They found that EI had a direct effect on teaching performance, in contrast to academics' knowledge, which contributed least towards their teaching performance (Kaur et al., 2019). They concluded that merely possessing knowledge does not make an effective teacher, that in fact efficient teaching is greatly influenced by the teachers' EI.

Furthermore, in a study of Pakistan teachers, Asrar-ul-Haq et al. (2017) revealed that lecturers' emotional self-awareness has a positive impact on their teaching performance. Similarly, Nassr et al. (2019) in an examination of emotion in higher education online learning in Malaysia found lecturers believed that the inclusion of technological emotion-detection tools would enable them to better perceive and respond to student emotional status, therefore potentially leading to improved student engagement. In a review of EI and cultural competence, Arghode et al. (2022) concluded that, online educators need to be cognisant of the emotional issues involved in online learning and have well-developed EI, which will enable them to better support students' online engagement.

Whilst we were unable to locate any studies examining the relationship between university lecturers' EI and student outcomes, there are several studies describing relationships between secondary teacher EI and student outcomes, and these are important in considering whether university lecturers' EI plays a role in online student learning. For instance, Alam and Ahmad (2018) reported that in a cohort of Pakistani students, teacher EI was predictive of student achievement. They also argued that the level of EI in teachers helps to create an environment or culture in a school that is conducive to learning. Similarly, Curci et al. (2014) found that teacher EI was related to academic achievement by improving student self-esteem and their beliefs about achievement. Latif et al. (2017) and Naqvi et al. (2016) also reported that teachers with higher EI had students with better academic achievement. These studies suggest that higher education lecturers' EI may result in better academic achievement and online learning in students.

“Learning itself is an intrinsically emotional business which involves struggle, frustration, thrill or excitement. In the public and formal context of the classroom, with all the dynamics between the teacher and the learners there is the prospect of success or failure and the potential for strong feelings” (Claxton, 1999, p.15). At the time of writing this paper, we were not able to locate any research around the effect of higher education lecturers' EI on student engagement and learning during online learning. This study makes an important contribution in addressing this gap in current knowledge and provides online education good practices grounded in EI, so that lectures delivering education in the online mode can consider employing these practices for lasting education in the new digital learning world.

The need for lecturers' EI during remote learning: The COVID-19 example

The COVID-19 pandemic resulted in enormous changes in higher education, including the sudden switch to online teaching and learning practices. Internationally, researchers have examined the effects of this abrupt transformation on higher education staff and students. Such research has been conducted in Germany (see Zawacki-Richter, 2021), South Africa (see Mhlanga & Moloi, 2020), Indonesia (see Rahiem, 2020), Japan (see Horita et al., 2021), Middle East (see Mohammed et al., 2020), Spain, Italy and Ecuador (see

Tejedor et al., 2020). In addition, researchers have investigated the resultant effects across many disciplines; to illustrate, engineering (see Gelles et al., 2020), medical science (see Elsalem et al., 2021), nursing (see Wallace et al., 2021) and teacher education (see Quezada et al., 2020).

As a result, much is known about the effects on teaching staff and higher education students caused by the move to online teaching and learning during the COVID-19 pandemic (Fung et al., 2022). For example, despite research conducted before the pandemic, which reported that online learning can produce benefits such as higher interactivity and engagement among students (Racheva, 2018), some research during the COVID-19 pandemic revealed that student participation, engagement and motivation were negatively impacted by the change to online learning. To illustrate, in a study of higher education academics and students at universities in China, the United States of America and Canada, Day et al. (2021) found that many students reported decreased motivation as a result of the move to online learning, citing contributing factors such as lack of community, sense of isolation, missing friends, lack of exercise and the challenges of communicating with their professors. Furthermore, Iglesias-Pradas et al. (2021) found that lecturers at one Spanish university expressed concern around decreased student participation and engagement in their units after the switch to online study. Iglesias-Pradas et al. concluded that synchronous learning (as opposed to asynchronous learning) supports student active engagement and participation. Similarly, Nguyen et al. (2021), in a study of 4,789 undergraduate students across 95 countries, revealed that whilst students missed the social aspects of learning on campus, synchronous learning helped mitigate some of their feelings of isolation. Students who experienced synchronous classes, which included social, active-learning techniques, reported significantly higher levels of engagement, motivation, enjoyment and satisfaction (Nguyen et al., 2021).

In other research, students expressed the transition to online learning resulted in difficulties organising their time, challenges in technological mastery and loss of contact with teachers and classmates (Tejedor et al., 2020). In addition, many students perceived that online learning was ineffective as the experiences they received in face-to-face learning environments were not being translated into online learning environments (Kee, 2021).

Most of the research around remote learning in higher education during the COVID-19 pandemic has focused on lecturers' emergency preparation of course content for online learning (e.g., Day et al., 2021) or lecturers' technological capacity (e.g., Quezada et al., 2020). However, a review of current literature revealed a lack of knowledge on the effect of higher education lecturers' EI on student engagement and learning during online learning. To address this gap in current knowledge, this study aimed to apply the concept of EI to understand students' perceptions of how lecturers' EI impacted their learning and engagement in an online learning environment.

Research aim

The study investigated students' perception of lecturers' EI and how that affected their learning and engagement during online learning using an Australian and Malaysian higher education student sample. It also attempted to uncover the cultural differences between these two countries. Understanding the interplay between these aspects is vital for lasting education in the new digital learning world.

Method

This study used a qualitative thematic approach to answer the research questions. Such research design is deemed effective when researching psychological constructs grounded with context-dependent facts (Collins & Cooper, 2014).

Ethics committee approval

The University Human Research Ethics Committee approved this study under the Australian Code for the responsible Conduct of Research.

Participants

The participants consisted of 14 students pursuing the bachelor's degree at two campuses of an Australian university. Among these, six were from the Australian main campus, while eight were from the Malaysian campus. These students have experienced online learning since the outbreak of COVID-19 in March 2020. Hence, they offer insights into the impact of lecturers' EI on student learning and engagement in remote learning spaces. Participants' demographic information is outlined in Tables 1 and 2. The names of the students have been changed to protect their identities.

Table 1
Participants' demographic information

No.	Pseudonyms	Gender	Degree	Year of study	Campus location
1	Sandra	Female	Bachelor of Business	Third	Australia
2	Josh	Male	Master of Teaching	Final (master's) year	Australia
3	Anne	Female	Bachelor of Accounting	First year	Australia
4	Will	Male	Bachelor of Media & Communication and Bachelor of Business	First year	Australia
5	Michael	Male	Bachelor of Media & Communication and Bachelor of Business	First year	Australia
6	Jess	Female	Bachelor of Business	Second year	Australia
7	Bindi	Female	Bachelor of Business	Final year	Malaysia
8	Ben	Male	Bachelor of Business	Final year	Malaysia
9	Lara	Female	Bachelor of Business	Third year	Malaysia
10	Jo	Female	Bachelor of Business	Final year	Malaysia
11	Cherry	Female	Bachelor of Business	Third year	Malaysia
12	Lilly	Female	Bachelor of Business	Third year	Malaysia
13	Mark	Female	Bachelor of Business	Third year	Malaysia
14	Oli	Female	Bachelor of Business	Third year	Malaysia

Table 2
Aggregated demographic information

	Australia campus	Malaysia campus
Male	3	1
Female	3	7
First-year bachelor's degree	3	0
Second-year bachelor's degree	1	0
Third (final) year bachelor's degree	1	8
Final-year master's degree	1	0

Procedure

After receiving institutional ethical approval, an announcement for participant recruitment was posted on the university's learning management system, Canvas. Potential participants were invited to contact us for an online focus group interview. The interviews were conducted from September 2021 to November 2021 through videoconferencing software. Consent was sought from the participants to audio-record the interview, and all participants provided informed consent. Each focus group interview took around 60 minutes to complete.

Semi-structured interview questions were developed from the literature on EI and online learning. These questions have been circulated among us to ensure clarity, taking into account some socio-linguistic factors. Revision to the questions was done before they were used. Table 3 below shows sample questions based on the four dimensions of EI by Salovey and Mayer (1990).

Table 3
Sample interview questions

EI dimension	Sample interview questions
Perceiving emotion	How did your lecturer express emotions in communicating with you?
Using emotions to facilitate thought	In what ways are your lecturers able to recognise and respond to your emotional needs and the emotional tone of the class?
Understanding emotion	How well you think your lecturers were aware of their emotions?
Managing emotions	In what ways was your lecturer able to convey respect for students?

During the focus group interviews, we prompted the students, where needed, to explain and elaborate their views and experiences with more contextual information in order to provide an in-depth understanding on the topics. We also instructed them not to mention the names of their lecturers or subject during the interview.

Data organisation and analysis

The recorded voice data from the focus group interviews were transcribed verbatim by two of us who carried out the interview. The transcribed data together with the audio files were exchanged among us to check the accuracy of the transcription. After this checking, filler words such as “ehhh” and “oh” were removed. Once completed, then the data were analysed manually. Prior to the coding, we read through the scripts to familiarise themselves with the stories (Saldana, 2013; Silverman, 2010). Two rounds of coding were carried out. The objective of the first round of coding was to understand the phenomenon based on the theory of EI by Salovey and Mayer (1990). Codes based on the keywords from this theory were used. These codes were then grouped according to the themes of the theory. In the second round of coding, which was inductive in nature, we aimed to find codes that could provide understanding about the context of the scenario not captured in the first round of coding. At this stage, we assessed the data to identify codes that could be identified. These codes were then grouped into themes. When these two rounds of coding were completed, memos were written based on the themes. In-depth discussions were written using these memos and past literature. Table 4 shows the codes that emerged from the two rounds of coding and the themes.

Table 4
Codes developed during data analysis process

First-order code	Second-order code	EI dimension
A lot of struggles No motivation, mental health issues Students find it hard to control emotions Some lecturers are not that responsive, don't care much about students' emotions but most are very empathetic and supportive	vulnerabilities, coping and empathy	Perceiving emotions
Transactional relationship with lecturers Less empowered Less nurturing and engaging Lack of informal conversations Opening cameras help Students are shy to express feelings Personalised connection with peers and lecturers is incredibly important Ask questions, answer questions	relationships with lecturers, trust and safety	Using emotions to facilitate thought
Culturally inappropriate to raise concerns Some lecturers rush to cover content Lack of communications lead to negative assumptions Non-verbal cues like voice and tone are important Feel emotional support with assessment extensions	communication, tone and voice	Understanding emotions

Only some lecturers are approachable	managing emotions	Managing emotions
Lecturers generally manage emotions well only some lose control		
Lack of student interactions and technical issues make lecturers look stressed		
Students and lecturers should share emotions to make the learning and engagement better		

Findings and discussion

In this section, we present our findings under four main themes identified from the data analysis process: (a) vulnerabilities, coping and empathy; (b) relationships with lecturers, trust and safety; (c) communication, tone and voice; and (d) managing emotions of lecturers. In analysing and discussing data, we were interested in seeing whether there were any differences between the way Australian and Malaysian participants share their perception of lecturers' EI and its impact on their learning and engagement.

Vulnerabilities, coping and empathy

Consistent with previous findings (Day et al., 2021; Sundarassen et al., 2020), we found that students felt a sense of hopelessness, boredom, frustration and disengagement during their online learning due to prolonging lockdowns and missing peer support. They shared their own struggles and vulnerabilities and how this impacts their learning outcomes:

I think it's really difficult because a lot of us, and even teachers as well, but more the students, are mentally really struggling. Just being very much isolated at home in the first place, especially being in Melbourne. So, I think that adds another level of distaste in a sense. It allows students to be like, I'm not interested, I'm already not feeling so great, so it's almost like there's not really much hope in the sense of university. (Will – first-year student in Australia)

It's quite hard to control emotions because if we have physical contact with our peers then certainly, we can actually share our emotions and then we can for example, study together, that's much better way for me to handle my stress. (Ben – final-year student in Malaysia)

They also reported that they appreciated numerous efforts of the lecturers and the level of support they received from some of their lecturers when they had emotional struggles, which in turn helped them better engage with their learning materials. In particular, they reported that additional empathy from their lecturers comforted them and helped them get through difficult times and achieve academically better. For instance, they said:

I had a death in the family and a few things happened and I just hit a mental wall. I couldn't keep going and I spoke to my lecturers at the time, varying sort of different responses, both OK, but very different and one that I felt took more of a personalised approach, I think I did better in that unit, probably because of that. (Anne – first-year student in Australia)

Participants also expressed the view that only some lecturers understood their emotional struggles. One participant admiringly shared some examples of how some lecturers went beyond their duty of call to satisfy different emotional needs of students to demonstrate a high level of understanding. They said that some students are "shy" to ask questions during live discussions. Some lecturers encouraged them to email their questions or organise additional classes to make them feel relaxed:

One of the lecturers, provided a session prior to the exam, just trying to relax us. So, I think some of them really did a great job in supporting students and some of them they don't really do much I would say. (Jo – final-year student in Malaysia)

We also found that some students were frustrated with lecturers' lack of understanding of students' emotions. Examples of situations that showed a lack of understanding others' emotions was when the contact time with the lecturer was cut, shortened or less productive. Students also shared that rushed lectures

or classes that were finished earlier than they should be made them feel emotionally disconnected from their lecturer. Students felt an increase in stress levels (a negative emotional experience) when contact time with the teaching staff was shortened or when online classes were cancelled. When students experience heightened levels of stress and disconnection because of a perceived inability to learn lecture material when class time is shortened, lecturers should be more cognisant of these emotional experiences. In the light of these findings, we suggest that such decisions made by lecturers often negatively impact their relationships with students, as Mark shared in the quote below:

They maybe try to rush the lecture, or finish earlier, maybe like 2–3 hours lecture, they do it in an hour, so I think for me it's like my learning experience is not so satisfying. (Mark – third-year student in Malaysia)

For me, I think, uh, like lecturers won't totally understand our situation, they wanted to keep up the quality of studies because people might just share their thoughts with their friends. There's a lot of resources, so from what I think of their perspective is that they would think that all I wanted is to maintain the standards so I wouldn't care much about your [students'] personal feeling, so I really don't care to like raise up all these questions to them. (Lara – third-year student in Malaysia)

There is evidence that students felt empathy from their teaching staff in terms of assessment extension approvals and via emails correspondence but expressed a need for their lecturers to be more considerate during the actual class environment:

I think when it comes to assessments and assignments there's definitely a lot more empathy. That comes through in correspondence, emailing and all those types of areas. But I think in the actual classes themselves it's important to build up the connections with the students so that it's very easy for students who might feel comfortable and confident to reach out to their tutors. (Michael – first-year student in Australia)

Similarly, our interviews revealed that students expected more support from their lecturers to help them make friends with their peers online as they believed that peer support was very vital for their learning and helpful in managing emotional challenges. They found it very hard to build relationships with peers without that support. They also stated that controversial discussions, anonymous discussion threads, Facebook or Messenger groups and lecturers' emails helped them better connect with lecturers and peers:

Asking something controversial so that everyone gets going and everyone is like “wait, no, I actually disagree with this”. I think goes a long way in just having a bit of involvement, especially when the teachers built up that trust, especially for that first 15 minutes. (Will – first-year student in Australia)

I had a good handful of personalised emails from the lecturers themselves. Not just announcements through canvas but the lecturer saying, “Well done, congratulations” or that sort of thing. (Josh – final-year student in Australia)

Students have previously revealed that completing online team assessments was a difficult and emotionally draining experience in higher education (Jaam et al., 2021). Participants express mixed feelings on the level of emotional support they received from their lecturers to deal with teamwork:

Personally, I think our lectures are supportive in that aspect because I remember one of my friends, she emailed her lecturer about a group mate about how they weren't really putting in effort as much as everybody else and the lecturer helped my friend to problem-solve. (Bindi – final-year student in Malaysia)

Honestly, I feel that our lecturers are not supportive. During one semester when I have the team conflict with my team members, and I approached to my lecturer, but she threw the ball back to me and asked us to solve the problem ourselves. (Cherry – third-year student in Malaysia)

Providing more support to connect with team members is an area for lecturers and educational institutions to reflect on and come out with appropriate strategies to provide adequate emotional support so that team assessments are more enjoyable than a stressful experience.

Relationships with lecturers, trust and safety

Previous research has highlighted that the ability to identify one's own and emotions in others is a key to developing stronger relationships (Cuff et al., 2016). Our findings suggest that students generally perceive their lecturers to be empathetic and identify their emotional needs during remote learning environments. However, interactions with some lecturers felt transactional and not very personal, which is more like a high school teacher–student relationship than a relationship with a lecturer. As higher education students, participants expect and want to feel more of an adult relationship with their lecturers and feel empowered in that relationship. As most of our participants explained, they appreciated lecturers who showed genuine interest and put more effort into building connections with students during remote learning:

In a F2F environment, relationship with all my tutors were really good. In an online environment it is very much, I'd say a standardised teacher-students relationship, where they teach me the content. I ask questions and that's about it. It's nothing really. (Michael – first-year student in Australia)

That degree of personalisation of learning and engagement is actually incredibly important. (Josh – final-year student in Australia)

Although perception of the relationship they have with lecturers is similar for all study participants, the Malaysian group said both students and lecturers do not appear on the camera. They acknowledge that not appearing on the camera is normal for Asian countries, which may contribute to emotional disconnection with the teaching staff:

What I feel is that I can understand perhaps like what the other colleague has just said, it's actually, that lecturers are also required to adapt to switching to teach online, and especially because in our culture, we do not turn on our camera when we are having our lectures or tutorials. (Ben – final-year student in Malaysia)

All my units are new, and they are new classes. I also need to meet new students and then we need to communicate. It's so hard not like face-to-face, because in online learning we do not open the camera, so we don't know who they are. So, it's the problem. (Oli – third-year student in Malaysia)

In F2F, you can see facial expressions, you know if the lecturer is angry or sad or they are happy, but when they teach online, ... the lecturer is always off the camera because they need to put the slides. So, it's hard for me to know their emotion. (Oli – third-year student in Malaysia)

As research has suggested, emotional cues can be better understood and expressed through non-verbal cues such as body language, tone and voice (Jacob et al., 2013). Similarly, even though the participants believe the authenticity of connections can be improved if they use cameras, students themselves say they are shy and reluctant to use cameras. Therefore, they wish that lecturers would promote turning on their cameras more to feel more connected and engaged with learning when the cameras are on:

I do believe more promotion and raising confidence in the student to like turn their camera on and would make a huge difference. (Michael – first-year student in Australia)

Our findings revealed that the Australian groups used cameras more often than the Malaysian groups, explaining that they believed that the interpersonal connections between themselves and their lecturers and other students were improved when cameras were used. Our findings suggest that students felt less personal connection to the lecturer and were less engaged with learning when cameras were not used. Participants expressed a belief that lecturers could do more to create personal connections and build students' engagement during online lectures:

There's been a couple of things that sort of had an impact. To my mind, the first of which is that those lessons were typically far less engaging. I felt far less personally invested in them. Simply because all the lecturer was doing was going through some slides, asking some quite inane questions, really that didn't really do much to provoke thought and then just leave at the end without really meaningfully answering questions or trying to connect with students. (Josh – final-year student in Australia)

Participants also shared that some lecturers are very much focused on the content or the technology so that they did not pay attention to students' questions or level of interaction. When lecturers attempted to cover the content within a limited timeframe, students felt that rushing to cover the content without meaningfully connecting with the class was ineffective. Consistent with previous findings (Keskitalo & Ruokamo, 2021), our study participants, too, believe that the content is essential. However, they suggested building connections with the class is more critical to create a safer and more trustworthy online learning environment. They suggested that playing quick games and having small informal conversations are effective ways to build trust:

I have teachers who try to make a fun topic to talk and then try to introduce everyone ... That's the kind of things that make me feel really comfortable coming to the lecture and tutorial. To be like, "Oh yes I'm in really safe place to talk and safe place to share my opinion". And that's just not only for the beginning of the tutorial, but I also think this connection needs to be prolonged until the end of semester as well. (Sandra – third-year student in Australia)

Lecturers and students can make friends and then sometimes play jokes or play games. (Lilly – third-year student in Malaysia)

Communication, voice and tone

Students shared that they found it difficult to pay attention and take in content during online lectures and felt that they are mostly only getting the lecturer's perspective and opinion on things, and they would like to hear each other's opinion more in online classes:

I think they take too much focus on what they are talking too so they can't pay more attention to what students' questions are. (Jess – second-year student in Australia)

They appreciated opportunities to lead online learning by explaining concepts, providing examples, and demonstrating practical scenarios such as role plays. They would prefer lecturers were more interactive to keep them engaged. Further analyses suggest that in the online environment, the lecturers' voice and/or tone are critical symbols of how approachable they appear. Our findings show that students decide whether to approach a lecturer or not based on the tone and how they interact during live sessions. If they feel uncomfortable or anxious to approach the teaching staff, they tend to seek support from peers. This behaviour is more visible among the Malaysian group:

I think it's the way they communicate, like the tone, if they get really high pitch, it makes people frustrated. As a student we can feel their frustration and I hope they can also see our frustration because we get really stressed out with how they lecture. The sound itself is the most important thing. It makes students feel frustrated. If a lecturer can talk in very calm way, like one of our lecturers, she's very nice, she talks softly, we really feel comfortable to listen to that lecture. (Lara – third-year student in Malaysia)

Jacob et al. (2013) found that EI is positively correlated with non-verbal communications, including tone and voice and suggest one's non-verbal cues impact the emotional state of others. Consequently, lecturers should pay more attention to their non-verbal cues such as tone and voice during online sessions as these behaviours affect students' emotional state. As highlighted earlier, at times, even students judge how approachable their lecturers are (or not) based on these non-verbal cues.

In addition, the Malaysian group, in particular, mentioned that they did not feel comfortable directly approaching their lecturers to raise their concerns as they believed it was culturally inappropriate to do so.

Some students shared that they email their lecturers, who appear friendly, and students appreciate opportunities to use their mother language to communicate with the teaching staff. Students said, they sensed that some lecturers were very approachable through non-verbal cues and their friendly nature:

Our conversation was like friends rather than being acting like lecturer and a student. We used our mother language to communicate, so we would not feel awkward. And this helped me a lot. Yeah, this really helped me a lot. (Cherry – third-year student in Malaysia)

Arghode et al. (2022) found that EI was the foundation on which intercultural competencies can be built. Hence, during remote learning space, lecturers should be cognisant of the emotional challenges of ethnic-minority students and students from different cultures to facilitate online learning better.

Managing emotions of lecturers

Our findings reveal that lecturers are mostly positive and calm, but participants have observed that their lecturers sometimes appear stressed. From participants' perspective, lack of responses or interactions from students and technology-related issues appear to create lecturers a stressful environment. At times, as they shared, it came out as a feeling of defeated by the lecturers:

I think lack of interactions and students' engagement come across as a bit defeated by the teachers. (Will – first-year student in Australia)

Maybe they don't know like how to share screen, or they share screen, but we cannot see anything. The technical problems make lecturers feel frustrated ... during these situations I feel that emotion. (Mark – third-year student in Malaysia)

Similarly, students also emphasised the importance of not rushing when lecturers communicated with students. They highlighted how much they depended on lecturers' responses specially when the learning occurs remotely. They often mentioned that lecturers rush to respond to their emails or questions on the chat messages; as a result, they sometimes do not get their expected answer. At times, students sensed that lecturers get frustrated when students ask more questions and as a result students stop questioning further. They believed that lecturers' ability to handle questions with patience would enhance their relationship with students and create a better learning environment:

When studying online, they really sound rushed and when they sound kind of like that, they don't leave room for you to ask questions. (Bindi – final-year student in Malaysia).

I think for me personally I would be very happy if they can attend to our questions in more patiently. (Lara – third-year student in Malaysia)

Participants often showed empathy and understanding towards struggles that lecturers face during remote learning. Students believed that communicating lecturers' struggles with students (and vice versa) was a better way to manage their emotions as this will nurture mutual understanding. As one student shared, failing to do so will lead to unfair assumptions of lecturers, perhaps hampering their relationships with students. Students want lecturers to take the initiatives to be open about their feelings and discuss them openly:

I think lectures can be honest and talk about their feelings, and maybe they want to share their struggles. I think students will understand about it and maybe we can talk about what our own feelings and then we will have much more considerate about each other's feelings because it can resonate with each other. (Ben – final-year student in Malaysia)

There's been very explicit moments like that where they directly call out. And we know everyone stressed. I'm stressed. Let's talk about some ways to deal with it. (Josh – final-year student in Australia)

There is also evidence that students think lecturers manage their emotions better during face-to-face classes than in remote learning, perhaps because they have better support systems such as co-workers and increased

social interactions. It appears that students are more confident to approach lecturers in a face-to-face environment than online. Therefore, lecturers should invite and encourage students to talk about their concerns, often.

Based on our findings, as depicted in Table 5, we show online education good practices that are grounded in theory of EI and how these behaviours of lecturers' may affect different emotions, learning and engagement among higher education students. Lecturers in online context should consider employing these practices for lasting education in the new digital learning world.

Table 5

Online education good practices grounded in EI theory and how these behaviours may impact different emotions, learning and engagement

Lecturer behaviour	Impact on emotion	Impact on learning and engagement
EI dimension: Perceiving emotions		
Understand students' emotional struggles	Reduces experience of negative emotions	Increases student motivation
Identify a range of emotions that students express	Reduces anxiety and fear	Increases student engagement
Provide a rationale for cancelling lectures and provide advance notice	Reduces disappointment	Reduces potential helplessness behaviours
Help students make friends with their peers online	Increases experience of positive emotions	Increases learning
Providing more support to connect with members in team assessments	Reduces fear and anxiety	Increases student beliefs that they can complete the course
EI dimension: Using emotions to facilitate thought		
Empower lecturer-student relationship	Increases experience of positive emotions	Develops trust which drive motivation
Personalise connections	Increases happiness	Drives motivation to learn
Put genuine interest in to building connections with students	Reduces anxiety	Improves engagement
Promote turning on their cameras to feel more connected	Increases positive exchange of emotions between students	Development of empathy and connectedness building teamwork and increased drive
Not rush to cover the content without connecting with the class	Reduces anger and frustration	Increases participation
Play quick games and have small informal conversations to connect	Increase in joy and happiness	Sets the scene for optimal learning environment
EI dimension: Understanding emotions		
Allow students to hear each other's opinion	Reduces anxiety and fear	Promoted connectedness and increases engagement
Provide students more opportunities to lead discussions	Increases confidence and pride	Increases effort and commitment
Be cognisant of non-verbal expressions (e.g., tone and voice)	Shows empathy and reduces anxiety, fear and anger amongst other negative emotions	Facilitates improved learning environment
Show approachability through non-verbal cues and friendly conduct	Increases feelings of joy and happiness, reduces anxiety	Improves learning, engagement and commitment

Be cognisant of the emotional challenges of ethnic minority students	Reduces embarrassment, anxiety and hopelessness	Increases motivation to learn
EI dimension: Managing emotions		
Do not rush when communicating with students (emails or online)	Reduces anxiety and ultimately anger	Increases willingness to persevere during difficult components of course
Handle students' questions with more patience	Helps students reduce the experience of a range of negative emotions	Students show greater problem-solving behaviours, and commitment to succeed
Avoid demeaning responses to students' questions (verbal or non-verbal)	Reduces negative emotions such as shame, guilt and embarrassment	Improves the willingness of student to take more risks and to innovate
Communicate struggles with students to nurture mutual understanding	Helps improve coping mechanisms in students, particularly for negative emotions such as anxiety and frustration	Improves student performance
Take the initiatives to be open about their feelings and discuss them openly	Helps students develop empathy and understand emotions; helps students develop strategies to better cope with negative emotions	Reduces student drop-out and increases commitment and motivation to succeed.

Conclusion

Students in higher education face many challenges when moved from face-to-face to remote learning. The lecturers' EI could help them to better manage their learning and engage in the remote learning space. However, based on our findings, it is clear that certain aspects of the impact, such as opening cameras and how students like to approach lecturers to ask questions, are culturally dependent.

Implications and recommendations

In the context of this study, findings reveal a need for higher education institutions to support lecturers in EI skills and strategies training, including the application of EI skills and strategies in online teaching and learning contexts. Such EI training for lecturers needs to include perceiving, understanding and managing both students' and their own emotions. Further research in this area is recommended to confirm these findings in a variety of contexts. Students in this study reported that the online interactions with lecturers felt transactional rather than personal; however, as higher education students, they were seeking a deeper connection with their lecturers. Lecturers' knowledge and application of EI skills and strategies could help facilitate them into developing better connections with their students (Kaur et al., 2019). Further, students reported perceptions that their lecturers were stressed or frustrated. Students perceived that this in turn reduced quality and quantity of communications from the lecturer and resulted in their not receiving the support they were seeking, and not feeling comfortable to continue the online conversation (Roddy et al., 2017). An understanding of EI skills and strategies could support lecturers in managing their stress and emotions and thus being able to better support student learning and engagement (Alam & Ahmad, 2018).

Students' experience of negative emotions such as those reported in this study (see Figure 1) can impact their learning, and engagement. Therefore, to better support student learning and engagement, particularly in online contexts, lecturers need to recognise and respond appropriately to students' emotions. Participants perceived those lecturers were focused on the technologies and delivering the lecture content, and did not give adequate attention to interactions with students or to students' questions. Consistent with previous findings (Kaur, Shri, & Mital 201), students also reported that course content delivered without any meaningful attempt to connecting with them inhibited their learning and engagement with course materials.

This study revealed that even small measures of support from lecturers, such as using an approachable and calm tone of voice (Jacob et al., 2013) or taking a few minutes at the start of an online lecture to engage students in a discussion around how they are coping, provides comfort and support to the students during

periods of enforced remote learning. Lecturers expressing an authentic understanding and consideration of students' emotions was also revealed to provide comfort and support to the students. During online learning, lecturers need to provide multiple forums for communication with students as not all students are comfortable in using their cameras or microphones to communicate in online lectures (Roddy et al., 2017).

Interestingly, this study revealed a cultural difference in how students would like to approach lecturers. Malaysian students like to use emails to communicate, not approach lecturers directly. Lecturers need to understand these differences in minority and culturally diverse students to facilitate better engagement and learning (Arghode et al., 2022). More than ever, students are looking to connect with lecturers and peers. Students in this study found the shortening of lectures exacerbated their stress. We recommend that any time remaining during allocated online lectures be devoted to informal conversations with the students to facilitate students' sense of connection and belonging. In particular, students would appreciate support in developing friendships and relationships with their peers in online learning environments. This could be facilitated through discussion prompts during lectures or break out group activities. However, students in this study reported that completing team assessments was a difficult and emotionally draining experience for them. Students also shared a perception that they predominately only receive the lecturers' perspectives and opinions and that they would like to hear their peers' opinions more in online classes. We recommend regular discussion breaks during online lectures to allow students to share their opinions and experiences with the content being covered.

Limitations and future research directions

Limitations of this study include the small number of participants. Further large-scale studies using a variety of methodologies to examine the relationship between lecturers EI and student learning and engagement in online teaching and learning contexts are recommended to confirm the findings of this study. In addition, future studies should include lecturers' perspectives and student perspectives. Participants self-reported their experiences. While these responses were deemed an honest reflection of the actual experiences and perceptions, it could have limitations such as bias towards particular responses or misunderstanding of the interview questions (Barker et al., 2016). Future studies should include empirical measures of EI, student learning and engagement.

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Data availability statement

The data in this study may be obtained by contacting the authors via email.

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