

Student Perceptions of Social Presence in Online Courses

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Abstract: Social presence is significant in the discussion on the online learning setting. Especially during the period of the COVID-19 pandemic, when a large number of educational institutes across the world shifted their academic activities to online learning platforms, the need for deepening the understanding of social presence and finding ways to enhance social presence in online courses has increased. Thus, a qualitative phenomenological study was conducted to explore student perceptions of social presence and discover strategies that can be perceived as increasing social presence in online courses. The population was current or previous online students, within at least six months, and were over eighteen years of age. In-depth, semi-structured interviews were conducted to gather qualitative data regarding students' experiences of perceiving social presence in online courses from eight participants. The findings from the thematic analysis of the data demonstrated that students perceived social presence as a factor in learning efficiency and drop-out rates of online courses. Teachers' significant role and responsibilities in the increase of social presence in online courses were also addressed in this research. Besides, four strategies (collaboration, personalised and prompt feedback, humanised course materials, and social media) that are perceived as increasing social presence in online courses were discovered. The findings can be used to develop future online course designs that aid teachers in increasing social presence as perceived by students.

Keywords: Social presence; Online courses; Online students; Collaboration

1. Introduction

1.1. Topic background

Online education has swiftly expanded and now plays a significant role in higher education. In 2013, more than half of the institutions surveyed indicated that online education was an important element involved in teachers' teaching plans ^[1]. This year, due to the COVID-19 pandemic, most of the educational institutes across the world have transformed their face-to-face classroom courses to online delivery methods to reduce the impact of the health crisis on academic activities ^[2]. Online courses provide the only opportunity for a large number of students to further their education. All the content in online courses is delivered fully online by using synchronous and asynchronous communication tools^[3].

Social presence has been described as placed first in the order of important components in online learning ^[4]. Short, Williams, and Christie defined social presence as the degree to which a person is perceived as a real person ^[5]. Burks described social presence as how individuals relate to each other in a virtual world ^[6]. As verbal cues and non-verbal cues, which are typically used in face-to-face classrooms to help determine one's personality, are lacking in the online environment, social presence that was defined by Garrison, Anderson, and Archer as the ability to project the participants' characteristics into the online community is needed in online courses ^[7]. Felnhofer et al. stated that students can interact socially, ask questions and share knowledge with each other comfortably, and actively engage in activities in an online course with a high level of social presence ^[8].

1.2. Rationale

My interest in the field of social presence in online learning and my online learning experiences were key driving forces in conducting the study on social presence in online courses. Due to the

COVID-19 pandemic, this is the first year for MSc TESOL students at the University of Edinburgh to engage in all academic activities online, and this period was also my first time taking so many important online courses in one year to achieve a degree. During this year, I experienced perceiving high levels of social presence from scratch in some online courses and felt the importance of social presence in the online learning setting. Therefore, I decided to determine social presence in online courses as my research topic.

Online courses provide the only opportunity for a large number of students to further their education. Kear, Chetwynd, and Jefferis found that a lack of social presence in asynchronous learning led to the feeling of disengagement during online courses ^[9]. Dow reported that students were less willing to interact with their classmates in online courses since they usually felt unfamiliar with each other ^[10]. In contrast, Ko found that students actively participated in group activities if they perceived a high level of social presence in an online community ^[11]. However, a gap exists in the literature on the understanding of social presence in online courses ^[6]. Although online courses attempt to provide students with opportunities to connect with others, students may still feel unconnected and can develop a sense of isolation and alienation ^[12]. Unless we understand how students can perceive a high level of social presence and apply appropriate strategies, students may not feel comfortable while communicating in online courses and gain the wider benefits of online communities ^[9]. Therefore, factors that encourage social presence must be addressed. More research needs to be conducted to investigate the ways to increase social presence in online courses. This need inspired me to explore student perceptions of social presence in online courses and discover strategies that could aid teachers on enhancing social presence in the online learning environment.

1.3. Purpose and significance

The purpose of this study is to explore student perceptions of social presence in online courses and determine strategies that can be perceived as increasing social presence in the online learning environment. This study aims to produce findings that are useful for teachers and designers of online courses to provide high levels of social presence for students.

One significance of this study is that it further delved into the understanding and knowledge of social presence in the online course setting. Additionally, it benefits online educators by bringing attention to the importance of social presence in online courses and discovers strategies that will help increase social presence in online courses. Moreover, students with no other alternative to continue their education but through online courses will have better experiences in their online learning programmes ^[13].

1.4. Research questions

- 1) What are student perceptions of social presence in online courses?
- 2) What strategies do students perceive as increasing social presence in online courses?

2. Methodology

2.1. Research design

As mentioned in Chapter 1 and explained in Chapter 2, this study attempts to deepen the understanding of social presence in the online environment and investigate ways to enhance social presence in online courses by revealing student online learning experiences. The purpose of this study is to explore student perceptions of social presence and discover strategies that can increase social presence in online courses. The research questions guide this study.

2.1.1. Philosophical perspective

This study seeks to discover how students perceive social presence in online courses. The focus of this study is on students' different perceptions and experiences, which attempts to seek not one, but multiple realities ^[14]. Additionally, this research explores the factors that resulted in students' different learning perceptions and experiences. Besides the students themselves, some factors come from the cultural beliefs they have, the online courses they take, and the people to which they interact. Thus, these multiple realities are constructed depending on other systems ^[14]. As for the epistemological perspective, knowledge is believed to be constructed rather than objectively determined in this research,

for individuals are able to construct social reality in their own ways ^[15-16]. This is reflected in this research by asking and interpreting different online students' words in order to understand their various meanings. As the paradigm closely links to the ontological and epistemological perspectives discussed above, interpretivism underpins this research.

2.1.2. Research approach

A qualitative phenomenological design, which was the most appropriate design for this study was chosen. One of the characteristics of qualitative research is seeking to bring change for, and benefit to, a particular population ^[17]. Creswell described that qualitative inquiry conducted in a natural setting can offer a complex and holistic view and produced detailed information ^[18]. This study aims to collect data related to students' actual lived experiences in a natural setting. Therefore, a qualitative design aligns well with the purpose and nature of this study. Phenomenology is a form of qualitative inquiry in which the researcher constructs the meaning of the situation or experience and arrives at the nature of the phenomenon ^[19]. According to Creswell and Moustakas, a phenomenological research study attempts to understand people's perceptions, insights, and understandings of a particular phenomenon ^[20-21]. This research examines student perceptions of the phenomenon of social presence as experienced in online courses. Therefore, a qualitative phenomenological research design is the optimum choice for this study since the phenomenon will be examined through an empirical and systematic approach ^[17].

2.1.3. Researcher's role

Moustakas claimed that one goal of the qualitative researcher is to make participants, who are included in the essence of the phenomenon being explored, aware of their status and role ^[21]. At the beginning of this research, participants were informed about why they are invited and how they fit into the research purposes. My role in this study was to determine and conduct the most appropriate research design ^[22]. I attempted to build a friendly and comfortable atmosphere for participants, as Seidman suggested ^[23]. During the interviews, I encouraged the participants to be open and produce rich data about their experiences and ideas ^[22]. Finally, I served as an insider and interpreter to analyse the data, only from the viewpoints of the participants ^[22].

2.2. Sample

Adult students who have at least six months of online learning experiences were eligible to participate in this study. Ten online students were invited to participate in this research, and two of them were randomly selected to take the pilot interviews. According to Moustakas, sample size is not fixed in qualitative research ^[21]. Rather, it depends on the phenomenon being explored, the type of data needed and the resources. This research explores social presence in online courses, and the online students are suitable for discussing this issue and helpful for the purpose of this research.

Purposive sampling was applied to select the participants. Burks stated that purposive sampling can enhance the understanding of selected participants' experiences, attitudes or behaviours, which helps provide the greatest participant insight ^[6]. Moreover, this type of method is described as appropriate for qualitative research designs and suitable for reducing bias ^[24]. Data was gathered from eight participants who were recruited from a university. The criteria for recruitment was that the participant was a current or previous online student, within at least six months, and was over eighteen years of age. Besides, according to Moustakas' essential criteria, the participant should have experienced the phenomenon, be interested in the topic, and be willing to participate in the interview ^[21].

2.3. Data collection

Semi-structured interviews, which are the most often used data gathering tool in social sciences, was used in this study to collect data ^[25]. Social presence concerns learners' feelings, and this research focuses on student perceptions that are difficult to be observed. Semi-structured interviews can both encourage participants to communicate openly with vivid detail as with an unstructured interview and offer reliable and comparable data as a structured interview, which is the most appropriate for this study ^[21]. Before the interviews, all the participants were provided with definitions of social presence. The conductor assessed their understanding of social presence and further explained it when participants felt confused in order to make sure that they understood the nature and meaning of this phenomenon ^[21]. In order to assess any barriers on conducting the phenomenological study and modify interview questions, two pilot interviews were conducted prior to the data collection ^[26]. The two pilot interviewees were randomly selected from the ten recruited participants, and several issues were found

through this process. Firstly, the interview was originally designed to be in English, and all participants selected were native Chinese. Although the participants have the ability to learn in the online courses that are taught in English, pilot interviews showed that they could not express themselves in the interview in English as clearly as in their first language, Chinese (Mandarin). Thus, to ensure that the participants could fully express their opinions and share related experiences without any misunderstanding, the interviews were then conducted in Chinese (Mandarin). Secondly, participants found it difficult to answer specific interview questions within a short period of time. Therefore, some guiding questions were added to help call to mind their experiences and feelings. Due to the policy regarding COVID-19, the interviews were conducted online through Teams. The duration of interviews was generally thirty minutes, and all of them were audio-recorded with each participant's permission provided in advance. Interviews were transcribed into Chinese soon after completion, then they were evaluated for accuracy, and copies were sent to the participants respectively to confirm accuracy.

2.4. Data analysis

This research used thematic analysis to analyse data. Thematic analysis has been described as a fundamental method for qualitative research, which is useful for highlighting similarities and differences found in the data, and generating new insights [27-28]. This research followed Braun and Clark's six steps. The first step is familiarising with the data. I immersed myself in the data to ensure a comprehensive understanding of the content and gain familiarity with all aspects of the data. In this process, the data was firstly transcribed in Chinese as mentioned above, and then transcribed into English. The second stage is coding. Systematic and rigorous coding is key to successful theme development [29-30]. The coding of the data remained close to the perspectives and research questions of this study. The following three stages: searching for themes, reviewing and revising themes, and developing a rich analysis of the finalised themes, which represented the core analysis work in thematic analysis, were followed [27]. Finally, a report was produced by transforming the analysis into interpretable writing.

2.5. Ethics

This research was conducted after gaining approval from the ethics committee, and each part of this research followed BERA ethical guidelines. All the participants were adults, aged between twenty-one and twenty-six. Before conducting the formal and pilot interviews, each participant was given an information sheet and a consent form, which included all the basic information about this research. Besides, participants were informed that they had the right to withdraw from this study for any reason and at any time. If a participant decided to withdraw, their data would be deleted and not used in this research. Once the two forms were completed, interviews were scheduled at the time convenient and comfortable for the participants and then conducted online to ensure safety during the COVID-19 pandemic.

The confidential and anonymous treatment of participants' data is considered throughout this research. All the participants were given pseudonyms, and all identifiable information of the participants was stored in a separate file from the research data. In the report of the data analysis, no detail involved could lead to the participants being identifiable. Audio recordings of all the interviews were uploaded and stored in a password-protected computer file. Additionally, all the data collected was only used for this dissertation and would be deleted six months after submission of the dissertation.

3. Results

3.1. Student perceptions of social presence in online courses

3.1.1. A factor in learning efficiency

Throughout the interviews, all participants mentioned the influence of social presence on learning efficiency. Learning efficiency referred to the improvement of academic performance in a limited time. According to the participants, a high level of perceived social presence greatly increased their learning efficiency in online learning. In high social presence online courses, participants' academic problems were solved in time by interacting with the teachers, which helped the students learn more during the same period. Also, participants benefited from other students in the same learning community. They could master certain knowledge faster through collaboration and get a deeper and more comprehensive

understanding of a specific theory after hearing and discussing others' perspectives. As Bella described:

"Sometimes, there were some creative and significant views that emerged in the collaboration with others, and these views could inspire me and provide me with a clearer and deeper understanding of some theories, which had a great impact on my learning efficiency."

3.1.2. A factor in drop-out rates of online courses

In addition, six participants considered social presence as an important element while making decisions on whether to keep learning in an online course. The participants expressed that low levels of social presence in online courses would lead to passive feelings and negative attitudes to the teachers and courses, which had a great impact on their choices of courses. Two participants described social presence as a crucial element in online courses and emphasised that they could not cope with online learning without perceiving enough social presence. As Amy stated:

"If I cannot perceive enough social presence in an online course, for example, I cannot learn well and happily. I think it is a waste of my time. Thus, there is no need for me to take part in such a course. I will choose another course where I can perceive a high level of social presence."

However, participants' needs to perceive high levels of social presence in online courses differ. Two of the participants had almost no demand and little care for social presence while studying in an online course. Although the two participants both agreed that they could benefit from social presence in online courses and found some students around them greatly affected by the levels of social presence, their related demand was minimal and could not offer further explanation, as David said:

"I had perceived high levels of social presence in some online courses and low in others, but I think the lowest level of social presence I perceived previously was enough for me. So, I think I will not drop out of any online courses due to social presence."

3.1.3. The role of teacher in increasing social presence in online courses

In the interviews, all participants mentioned the important role the teacher played in increasing social presence in online courses, since they relied heavily on the opportunities provided by the teachers to collaborate and interact with others. Two participants further described the teacher as the decisive factor in enhancing social presence in online courses. As Amy commented:

"Considering the improvement of social presence, my expectation is mainly on the teachers."

Five interviewees further expressed that there were apparent differences in the levels of social presence they perceived in different online courses. Specifically, some teachers succeeded in increasing social presence in specific online courses, while some failed or did not attempt to enhance social presence in their online courses. As Grace said:

"I could clearly feel that some teachers worked hard to create a sense of social presence for us in some online courses, which made me happy and comfortable, and some teachers did not. I guess the latter ones do not know how to increase social presence or even have no awareness about it."

According to the participants, teachers should understand their great impact on this issue. Besides, professional training related to strategies that improve social presence in online courses is required.

3.2. Strategies that can be perceived by students as effectively increasing social presence in online courses

3.2.1. Collaboration

According to the interviews, all eight students specified that collaboration was effective in increasing social presence in online courses. Although collaboration covers group work and sharing work, group work was emphasised by all the participants, and sharing work was only mentioned by two students. Students commented that collaboration, especially group work, provided them with more opportunities to interact with other students, and the process of collaboration allowed them to feel connected and more familiar with their classmates. As Henry commented:

"For me, group work means everyone works towards the same goal. In this process, I can freely interact and spark with other members of our group. We are linked together through group work."

During the interviews, two participants mentioned that they hoped to work with fixed group

members in all collaborative activities in their online courses. According to these two participants, the constant change of group members left them little time to get to know and interact with each other. By contrast, fixed groups can allow them to get familiar and build trust with their partners. As Bella imagined:

“If the group members do not change, we can be more and more familiar with each other and become friends during the process of completing one group task after another. I think that can offer me a sense of belonging.”

However, three participants mentioned that some negative students in their groups make them uncomfortable while completing group work. One student also expressed that the sense of alienation was magnified in some online collaborative activities due to the time difference.

3.2.2. Personalised and prompt feedback

All eight students specifically discussed the importance of personalised and prompt feedback from their instructors. Personalised and prompt feedback meant that instructors provided detailed and specific comments in a short time. Emails and discussion boards are common formats to give this kind of feedback. Two participants mentioned that they enjoyed receiving personalised and prompt feedback but did not know the reason, and the other participants expressed that they feel free to contact their teachers if they find the teachers always provided personalised and prompt feedback. These students further described the feeling as being cared about and expected to succeed. As David said:

“Personalised feedback is very helpful to me because it can efficiently solve my problems. And while receiving personalised feedback promptly, I felt that the teacher was available and paying attention to me, which increased my sense of presence.”

However, most of these students expressed that only a few teachers offered them personalised and prompt feedback. As Amy said:

“Sometimes, my problem had been solved when the instructor responded to my question. Sometimes when the teacher sent me the feedback, I had longer expected to know the answer and suggestion. These situations made me feel that I was self-studying.”

3.2.3. Humanised course materials

Throughout the interviews, six participants agreed that humanised course materials were effective in enhancing social presence perceived in online courses. Humanised course materials referred to course materials that were attributed to human qualities, which were friendlier to students. Regarding the ways to humanise course materials, students mentioned using a conversational tone in lectures and audio PowerPoints and inserting emojis or teachers' photos in course content. Students felt engaged, supported, and closely connected with the teachers while interacting with the humanised course materials. As Cindy explained:

“When a teacher used a friendly and conversational tone in the recorded lecture, I could relatively ignore the physical distance between the lecturer and me and felt the close relationship between us.”

3.2.4. Social media

In the interviews, six participants specified that social media increased social presence in their online courses. Twitter, Facebook and WeChat were described by the participants as their preferred social media options. According to the participants, social media was convenient for them to see the latest message and reply quickly, and it allowed them to arrange study groups and ensure information exchange. Participants felt relaxed to share personal experiences and interact with others on social media, and the sense of belonging to a community as well as social presence enhanced due to the use of social media. As Amy said:

“If I encounter something interesting in my life, I will not post it to the discussion boards or Teams, because they are only the learning platform for me. If we want to be familiar with everyone in one online course and feel we are real, we need to use social media, such as WeChat, where we can get to know each other better and improve the level of social presence.”

However, the six participants had different opinions on whether teachers should join students' social media groups. Two of them welcomed teachers to join their social media groups and considered it a great way to increase interaction with teachers. The other four participants expressed that they would be very nervous and no longer regard the social media group as a space they could freely talk if

teachers were in their social media groups.

4. Discussion

4.1. Question 1: What are students' perceptions of social presence in online courses?

4.1.1. A key factor in learning efficiency

Findings from this research showed that high levels of social presence greatly increased participants' learning efficiency since online courses with high degrees of social presence enabled them to learn efficiently by collaborating and interacting with their teachers and classmates. This is related to Picciano's findings, that social presence has a positive impact on the quality and quantity of student learning^[31]. However, Picciano only investigated the relationship between social presence and academic performance at a particular time, and learning efficiency was a factor, but not the only factor of the learning quality and quantity^[31]. Therefore, positive influence of social presence on learning efficiency in online courses is a noticeable finding from this study. Findings showed that one reason behind the relationship is that students did not only express themselves and accept all others' views in online courses with high levels of social presence, but they also discussed different perspectives and critically reviewed existing knowledge. According to Kapp and Lee, social constructivism supports that knowledge is co-constructed when students exchange and share perspectives together in an environment where they feel the sense of belonging^[32-33]. The finding can be explained by social constructivism, and in turn, confirms the theory.

4.1.2. An indirect factor in drop-out rates of online courses

In addition, this study found that low levels of social presence in online courses can lead to students' passive feelings and negative attitudes towards teachers and courses. Based on Weerasinghe and Fernando's definition of student satisfaction, which showed a close correlation between students' satisfaction and their attitude, this finding is consistent with Gunawardena and Zittle where social presence can serve as a predictor of student satisfaction in online courses^[34-35]. As Willging and Johnson and Levy discovered in their studies, student satisfaction has a correlation with student persistence in online courses; the evidence emerging from this study's interviews confirm that students' feelings and attitudes can be derived from low levels of social presence, which in turn influence their decisions on whether to keep learning in an online course^[36-37]. Therefore, social presence might be seen as an indirect factor of drop-out rates of online courses.

However, findings showed that although participants in this study shared similar views towards the benefits of social presence in their online learning, they differed in their needs to perceive high levels of social presence in online courses. Thus, the level of social presence would not influence some students' decisions to drop out of an online course. This phenomenon has not been deeply explored and discussed to date, to the researcher's knowledge. Evidence from this research showed that the difference always appeared along with students' different characteristics. Therefore, this finding might be explained by the different levels of intimacy (a component of social presence) that students adapted, which is determined by their cultural norms and need for a sense of affiliation^[38-39]. Based on this theory, the level of social presence perceived that is considered as low by some students may be considered as high by others. Thus, the latter students are considered as almost having no demand to a particular level of social presence and will not drop out of an online course due to social presence; but in fact, their satisfaction has never been influenced.

4.1.3. The significant role of teacher in increasing social presence in online courses

Anderson and Dron stated that the majority of responsibility for establishing social presence is placed on teachers^[40]. Evidence from this research confirmed that teachers were regarded as an essential factor to influence the level of social presence in online courses. This research found teachers who could provide participants with opportunities to collaborate and interact, led to a sense of social presence. This aligns with Boston et al.'s argue that it is the teachers' duty to design and conduct classroom activities and assignments to allow students to connect with others^[41].

Findings from this research also showed that some teachers attempted, but failed, to increase social presence and some teachers were believed to have no awareness about the need to increase social presence in online courses. This finding is related to Sherblom, where teachers must master the technology, facilitate proper activities and spend extensive time and effort if they want to successfully establish social presence in the online learning environment and the requirements required are a

challenge to online teachers and can be obstacles for them to increase social presence in their online courses^[6]. Kear et al. stated that students cannot perceive a high level of social presence if appropriate strategies are not used, which can also explain teachers' failures in increasing social presence in online courses^[9]. However, besides Sherblom and Kear et al., previous scholars have only focused on teachers who were aware of the importance of social presence and willing to increase social presence in their online courses and ignored teachers who did not^[9].

4.2. Question 2: What strategies do students perceive as increasing social presence in online courses?

Results from this study showed the need for teachers to learn how to effectively increase social presence in online courses. As mentioned in the last section, appropriate strategies should be used by teachers to allow students to interact comfortably in the online environment. Thus, strategies that can increase social presence in online courses are discussed in the following sections of this chapter.

4.2.1. Collaboration

Collaboration was evident in all the interviews conducted in this research as being effective in enhancing social presence in online courses because it allowed students to make connections with each other. Findings showed that collaboration took place in both asynchronous and synchronous learning and guided students to interact for the same purposes, which was seen to be helpful for students to get to know each other in online courses where they cannot meet face-to-face and feel a sense of connectedness. This aligns with Zhao, Sullivan, and Mellenius who argued for a positive correlation between collaboration and social presence, and thus confirms that collaboration can be implemented as a strategy that increases social presence in online courses^[42].

The results of the interviews also addressed that some students considered that working with fixed group members throughout online courses can further improve their social presence. That is because over time, fixed study groups enable students to generate more common topics, build closer relationships and create a stronger sense of belonging with group members than changing group members from time to time. This echoes the results of Akcaoglu and Lee's study that fixed study groups, where students can easily connect to previous conversations, rather than constantly rehashing materials they discussed with previous partners, can contribute to group cohesion and sociability^[43]. Besides, this research found that uncertain characteristics of group members and time differences had negative influences on social presence in online courses. Similarly, Hadwin, Bakhtiar and Miller described personal characteristics and time differences as challenges in online collaboration^[44]. However, the explicit relationship between the two factors and social presence in online courses has not been discussed by Hadwin, Bakhtiar and Miller and other previous researchers. There is no denying that how to set up collaboration is an important issue that needs to be taken into consideration by teachers^[44].

4.2.2. Personalised and prompt feedback

This research found that personalised and prompt feedback was an essential element in enhancing the sense of social presence in online courses. Participants in this research considered personalised and prompt feedback that addressed students' strengths and weaknesses in time enhanced their perceptions of teachers' engagement. Specifically, findings showed that personalised and prompt feedback is effective in avoiding the feeling of isolation and instead increases the feeling of being connected. This is consistent with Plante and Hostetter's and Kapp's findings that giving personalised and prompt feedback helps to integrate caring and social presence into students' coursework^[32]. Findings showed that when students could not receive prompt feedback, they might feel like learning independently, which echoes Richard and Swan who stressed that applying immediacy behaviours, which typically happen in face-to-face situations both verbally and non-verbally, in the online environment can increase perceived social presence, since prompt feedback relates to immediacy behaviour^[45]. Personalised and prompt feedback should be used as a strategy to enhance social presence in online courses.

4.2.3. Humanised course materials

Results from this study showed that humanised course materials could increase participants' feelings of social presence in online courses. Specifically, participants interacting with humanised course materials felt engaged, supported and closely connected with the teachers. This aligns with Crawford-Ferre and Wiest's statement, that humanised interfaces allow students to perceive their

teachers' passion and personality and further enhance social presence in an online environment^[46]. In this study, using a conversational tone, rather than just narrating PowerPoint slides, as a way of humanising course materials was found to increase social presence students perceived in online courses, which echoes Swan and Shih where a tone which is free of emotion rather than formal was adopted in classes with higher levels of social presence^[47]. Findings also showed that inserting teachers' photos and emojis can contribute to humanising course materials, which could effectively engage the participants and develop a connection between students and their teachers. This is parallel to Kear et al.^[9], in that pictures help students perceive that their teachers are real, and Wall and Malone who discovered that emojis used in course materials contribute to a supportive and comfortable online atmosphere^[48]. Briefly speaking, using conversational tones, emojis and pictures to humanise course materials could serve as a strategy to increase social presence in online courses.

4.2.4. Social media

Finally, teachers were suggested to improve social presence in online courses by encouraging the use of social media. Findings showed that social media, which is easily accessible and has various functions, provided students with a higher level of immediacy, which is a component of social presence as mentioned above, compared with other mediums typically used in online courses. This finding is consistent with Dunlap and Lowenthal's statement on social media^[49]. Besides, this research found that social media offered a comfortable and relaxing space for students to share and discuss their interests, especially topics unrelated to learning, which enhanced their sense of being connected and belonging to a community. This aligns with Helal, Ozuem, and Lancaster's statement that freedom in exchanging content in social media provides students with opportunities to connect to others^[50]. Therefore, social media should be used as a strategy to increase social presence in online courses.

In addition, the significant influence of social media groups on social presence in online courses was addressed in this research, which supports Akcaoglu and Lee who discovered in their study that social media groups provide high levels of social presence. Furthermore, the findings from this research showed most participants' expectations of interacting with their teachers in social media groups^[51]. This is consistent with Akcaoglu and Lee's findings, that instructors' participation promotes student engagement in social media groups, which enhances the sense of community^[51]. However, it is noticeable that several participants had the opposite view, since they considered teachers' engagement might destroy the relaxed environment in social media group discussion.

5. Conclusion

5.1. Summary of the study

The purpose of this qualitative phenomenological study was to explore student perceptions of social presence in online courses and discover strategies that could be perceived as increasing social presence in the online setting. In-depth, semi-structured interviews were conducted to reveal the online learning experiences of eight current or previous online students within at least six months. The data helps fill the gap in the literature on social presence in the online learning setting. This research finds that social presence is perceived by students as a key factor in learning efficiency in online courses. The results also show that social presence can influence student satisfaction and further impact online course drop-out rates, although students' needs as to the level of social presence differs. Besides, a teacher's significant role in increasing social presence in online courses was addressed in this research, which is consistent with previous literature. In addition, strategies perceived by students as enhancing social presence in online courses were indicated in this research. The four strategies are: collaboration, personalised and prompt feedback, humanised course materials, and social media. Participants felt overall more connected and comfortable when one or more of the four strategies were used in online courses.

5.2. Limitations

Researchers should consider the underpinning limitations of the research, regardless of the study design^[52]. All the participants recruited in this research were students studying in one university. Although all the selected individuals had at least six months of online learning experience, some of the participants had only taken online courses in the same university. Although the number of participants was appropriate for this qualitative study, the findings from the eight participants can only represent a small number of online students^[53]. Therefore, the findings cannot be generalised to all online courses.

Besides, potential researcher bias exists in this research. I had similar experiences of learning online as the eight participants. Although I attempted to set aside my personal views on the phenomena being explored throughout this study and avoid leading questions and comments in the interviews^[21], my preconceptions might still have influenced how I conducted the interviews and interpreted the data collected.

5.3. Implications for online courses

This study provides additional information to the body of knowledge regarding social presence in online courses. Findings from this research showed that social presence is perceived by students as a key factor in learning efficiency in online courses, an indirect factor in drop-out rates of online courses and addressed teachers' significant role in increasing social presence in this setting. Teachers can thus improve student learning efficiency and decrease the drop-out rates of their online courses by increasing social presence. Besides, four strategies (collaboration, personalised and prompt feedback, humanised course materials, and social media) that can be perceived by students as increasing social presence in online courses were indicated in this research, which benefits educators who need to design or teach online courses by helping them to create a sense of belonging and connectedness. Social presence in one online course can be increased when no matter which of the four strategies are implemented, and such an increase may be magnified when all the four strategies are used together. Without social presence, students may feel they are in isolation with others, rather than presenting themselves as real people in online courses. It is necessary to find ways to keep online students engaged and connected as more institutes shift towards online courses. The findings can be used to develop future online course designs that aid teachers in increasing social presence as perceived by students.

5.4. Recommendations for further research

All the participants in this study were recruited from the same university. Further research could explore online students in a broader geographical setting. Students selected in the study ranged from twenty-one to twenty-six. Studies involving participants over twenty-six should be conducted in the future to explore whether the age of students can influence their perceptions of social presence in online courses. Additionally, all participants were college students who had not been exposed to online courses outside school. It would be beneficial to study adults who had taken vocational courses or other kinds of online courses to explore whether the results would be influenced by this factor.

An extension of this research should focus on the family, location, the history of depression, or any other factors that may impact student perceptions of social presence in online courses. Besides, further research should continue to examine and discover existing strategies and potential strategies that may enhance perceived social presence in online courses.

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