

The presence of absence: Suggestions for online collaborative learning and communication for university students

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Abstract. This article focuses on online collaborative learning in the Chinese higher education environment. Through a comprehensive analysis of multiple relevant literature, it aims to explore the phenomenon of "absent presence" that occurs during the online collaborative learning process of Chinese college students, as well as the resulting issues such as attention distraction and insufficient participation. Based on this, effective improvement strategies are proposed. The main research method employed is literature analysis, systematically reviewing and commenting on existing studies on online collaborative learning, student participation, media influence, and teaching strategies. The analysis shows that the effectiveness of online collaborative learning is significantly influenced by environmental interference, media selection, and teaching design. To address the problems of low participation and low efficiency, this article proposes three strategies: Firstly, strengthen the guiding and motivating role of teachers or teaching assistants in discussions to stimulate interaction; Secondly, suggest that students choose environments with less interference and use less entertaining professional platforms to reduce distraction; Finally, through the formulation of clear online management strategies (such as content segmentation, integration of online and offline, and scheduling breaks), to enhance the flow experience and concentration of learning. The final conclusion is that although these strategies help improve the quality of online collaborative learning and bring it closer to the "real presence" of offline learning, their effects are still constrained by individual student factors, and the strategies themselves still require more empirical research support.

Keywords: Collaborative Learning, Online Learning, Social Media, attention switch, in-class engagement.

1. Introduction

After the outbreak of the COVID-19 pandemic, many universities across the country had to move their classes online in various forms. In addition to online classes shifting traditional offline teaching methods, some parts of collaborative group learning have also moved online with them. There has been research on collaborative learning and online learning before the epidemic, suggesting that the online format, the social media environment, contributes to student learning and interaction. [1] [2] [3] The epidemic exacerbated the development of online learning, with the internet solving the problem of time and space distance. Universities in China also immediately embarked on educational reform by offering online courses [4]. Many students choose to use social media software to communicate and interact with each other. However, after several years of online education, it can be found that many Chinese students have problems during online collaborative learning discussions. Students are easily influenced by their environment, have difficulty in maintaining their attention for long periods of time, are unable to fully immerse themselves in group learning and are inefficient in discussion learning.

2. Related concepts

2.1 Presence on the internet

The internet gives people a similar level of face-to-face communication to that which would otherwise occur offline, with the medium acting as an extension of the body [5]. People use their mobile phones or computer screens to address the temporal and spatial barriers. The online virtual environment simulates reality and becomes an alternative society for people to live and work socially. But there is a difference between online 'presence' and real 'presence' offline. "Presence" is the

presentation of things or people in space, but also in the present. Houliez and Gamble [6] explain Heidegger's three “ways of being”, the first is the state of being of the entity in the present, the second is the way of being of the person, and the third is the way of being in relation to the use of tools. Houliez and Gamble [6] argue that technology can bring separation closer, but the authenticity of 'inhabitation' is being destroyed by communication technologies. Then thinking outside the box, learning and collaborative learning in online environments can also be somewhat weakened by the medium, with the authenticity of offline 'inhabiting' diminished and less effective. For example, online learning participants' attention has been distracted or diverted by their surroundings [7] but the online discussion of learning is not recorded or affected, presenting a situation where attention is absent, and the “body” is still engaged.

2.2 Collaborative learning

Collaborative learning is a term for an educational approach that encompasses the collective thinking efforts of a student body or students and teachers. The scope of Collaborative learning is extensive, most of them are centered on students' exploration or application of course content, rather than merely teachers' unilateral explanations [8]. This includes various forms of interaction, including face-to-face communication and interaction through computer media [9]. During the online learning process, mobile devices or social media software provide a convenient platform for teachers and students to communicate and interact [1] [2] [3] [10]. Group collaboration can also be easily carried out on mobile phones or computer mobile devices [11]. However, it is precisely because of the convenience of the Internet and media platforms that students can participate in discussion and learning in different environments at any time. It also doesn't guarantee full engagement and participation like traditional offline discussions, which can lead to distractions, interruptions, and multitasking.

3. Opportunities and challenges

The pandemic has inspired online education, which was already growing. In China, online education and distance education have witnessed explosive growth in the past decade, and the number of users of education and learning apps has also surged during the epidemic period [12]. Online learning can transcend time and space limitations and is highly flexible [13]. Based on the analysis of previous studies, this paper focuses on the Chinese university environment, especially the online environment of group collaborative learning. Collaborative learning requires group members to reach a common agreement and work towards a theme, rather than dividing and merging as in cooperative learning, which requires finding a final common solution. Mobile devices and social media platforms not only provide forms of text, images and videos that allow students to share and edit classroom content, but also foster a culture of collective exploration and interaction [14], which is consistent with the concept of collaborative learning.

But no matter what social and video software is used to communicate on the web, it is important to note that there are many potential 'distractions' within the smart device itself, such as gaming, text messaging services (SMS) or social media chatting with others [15]. As a result, it is easy to experience the problem of 'presence' of absence, where individual images are shown participating in class content and groups, but the mind is not present in the classroom. 81% of headmasters surveyed felt that the primary focus of distance learning was to keep students engaged [16]. So how to keep Chinese students' continuous participation in online collaborative learning and improve its efficiency is the focus of this paper.

4. Solutions

4.1 Teacher involvement - stimulating participation and interaction

Almost three years after the epidemic, it can be found that collaborative group learning in the online video platform provided by the school can get sidetracked or fail to catch the focus of the discussion. For example, the teacher asks questions and students discuss them to find solutions, but then gradually discuss topics that are outside the classroom, and some students do not participate in the discussion for the whole time. Some students felt that group learning was hindering their progress, others resisted participating because of previous bad experiences in collaborative processes, and some felt that group performance did not reflect their individual contributions [17].

Collaborative learning requires everyone in the group to participate and obtain a common solution. Knowledge flows between students during communicative discussions [17], and interaction involves interaction with resources, interaction with the teacher, and interaction with peers [2]. In the traditional offline classroom, the teacher is an important player in the classroom. Similarly, Zhu [18] argues that in the online classroom, the teacher is also an important external variable that influences collaborative learning. When participation cannot be resolved among peers, student interaction can be motivated by bridging the role of the teacher in online discussions [19]. For example, in the study by Xu, Chen, G and Chen, N.-S. [20], the teacher could ask during the discussion, "Student A has raised the point about m. Does anyone want to add to it?" or "Are there other perspectives?" This kind of open-ended question from the teacher helps to stimulate the discussion. Also, encouragement and positive feedback from the teacher can stimulate participation by making group members more interactive during group discussions, rather than bored and neglected.

On the other hand, in addition to the teacher's engagement, an assistant teacher can also be added to help manage the group and provide timely answers and effective support to group members [4]. From personal experience, teaching assistants are rarely present in some group discussions or online learning classes during online discussions in China. The inclusion of a teaching assistant facilitates the assessment of collaborative learning tasks [21], giving students effective support to avoid digression and comprehension mistakes in their discussions. Moreover, teaching assistants also take the place of the teacher in collaborative learning to stimulate increased participation.

Keeping Chinese students consistently engaged in collaborative learning can be enhanced through the involvement of teachers or teaching assistants. Although there are few teaching assistants in online discussions in China, often the group is managed through the group leader, who manages the group's collaborative learning. But there is still no replacement for the role of the teacher. The more interaction with the teacher and classmates, the more engaged the students will be [22], thus creating a virtuous cycle of interaction and promoting better collaborative learning outcomes. This prevents group members from running out of ideas and not participating in collaborative learning.

4.2 Improved environment and media choice

In addition to teacher involvement, which is an external human factor that affects student engagement, the online collaborative learning environment needs to be improved. In online learning, students often wander between studying and informal learning, and even appear to multi-task [23]. This can also occur in Chinese university classrooms, and there are often Weibo hits for doing things outside of class. In fact, it is a matter of boundaries. The online learning environment includes the environment in which the medium is used as well as the environment in which the student and the device are located.

In the online learning environment of domestic university students, for example, most of them participate in online courses and online discussions at home or in their school dormitories due to the epidemic, and it is easy for them to interrupt their studies with their pets at home, or for their friends and relatives to interrupt the progress of the discussion [16]. Or student will receive new messages from social networks such as WeChat, QQ and Weibo. The first is an environmental factor and the second is the influence of media and devices. Environmental interruptions and the potential

distractions of smart devices [15] put students in a distracted state, thus forgetting what group members are saying and the progress of the whole collaborative learning discussion. Therefore, there is a requirement to manage the boundaries of the environment and to divide the learning and non-learning environment and time allocation [24]. And when the individual's control of boundaries is consistent with the environment, it works better both in work-based learning and in non-work areas [25]. If the boundary management of physical space and network virtual space can be established, it will be able to create a better learning atmosphere.

Firstly, in terms of media choice, you can take on an online learning platform by choosing software that is less socially entertaining. For example, ZOOM, Team, and Ding Ding can be used to avoid distractions caused by social and recreational activities. Collaborative learning in online environments includes not only textual communication but also video conversations. And research by Curtis and Lawson [26] suggests that the medium does have an impact, with textual communication inhibiting interaction. The lack of body language in text, as well as expressions of tone of voice, etc., also makes it easy to be misunderstood. Although platforms for video conversations now offer a similar offline face-to-face scenario, it is impossible to ignore the intrusion of non-learning messages in social media in an online environment, thus appearing in-person and out-of-person. Thus, Oeppen, Shaw and Brennan's [15] study involved students using Microsoft Office applications and 'academic' software to avoid being distracted by social media. Therefore, it is important to choose online platforms that are low in social entertainment.

Secondly, when collaborative online learning has to take place at home due to epidemics or other distance and time reasons, background noise and distracting sounds can be reduced by wearing headphones [15]. Also, to avoid interruptions, family members can be informed in advance so that they can concentrate on their studies. If possible, choose a quiet environment at home or choose an environment where you can study without being easily disturbed. Finally, time and task limits can be formulated for each group discussion in collaborative learning to enhance the mind-flow experience of the discussion [27]. When time is tight for discussion and learning, students can be motivated to pay attention and fully engage in the discussion.

As it is clear, the recommendations and strategies in this section are analysed in terms of the external environment of learning. It is through the improvement of the external environment and the clarification of boundary issues that the possibility of interruptions and distractions can be reduced. However, this measure is analysed more from the student's point of view and can only be communicated to the student by way of advice. This part of the external factors, such as improving the environment and the way in which the headphones are brought in, is not controllable. It is something that needs to be done by the students in conjunction with each other, and it is a choice that has to be made taking into account the students' own needs.

4.3 Develop an online management strategy

Improving engagement in collaborative learning and avoiding problems with analysis requires not only teacher involvement and improving the external environment, but also standardising the online collaborative learning through the development of online management strategies. As with traditional offline classes, many online learning classes in China will require sign-in to ensure student participation. Group assignments are also required to ensure that group members are engaged in collaborative learning. However, in terms of the effectiveness of participation and student attention, this approach does not fully ensure that students are motivated and engaged in discussions. From personal experience, teachers and students opt for online collaborative learning due to the constraints of time and space. Often students will be using multiple devices for simultaneous activities, which inevitably leads to distractions and inattention problems. In addition to the boundary management issues of learning and living mentioned above [24], online management strategies need to be put forward in advance.

Firstly, the online learning process can be managed in chunks, where the content is broken down into smaller units of 20-25 minutes each unit. Rather than just throwing out questions and topics,

discussion and learning content can be cut into sections or student guides can be provided prior to collaborative learning. Having an agenda guide or list of modules for a collaborative learning network session in hand can provide a visual reminder after a wander [15], bringing attention back accurately and quickly.

Secondly, to strengthen the effective integration of online and offline [4]. In a case study, Bao [4] suggests that offline self-study can be facilitated by asking students to read and prepare materials before class, or by assigning homework to understand cognitive levels. After the pre-preparation, students have some understanding of the content before entering the online session which will not lead to nothing to say and low engagement.

Finally, the right amount of rest is not only good for the bodies of students who are sedentary for long periods of time, but also for students preparing for the next board [28]. Especially during the epidemic many students are sedentary at home, or stay in their dormitories, where prolonged use of mobile devices is not physically beneficial and prolonged online learning is prone to distraction. When the collaborative learning is overloaded with content, it is possible to take time-slicing breaks according to set modules, with short breaks being beneficial to learning progress. [29]

5. Conclusion

The suddenness of the outbreak gave the opportunity for online learning to develop, and the ease and flexibility of online learning and discussion allowed students and teachers to continue working and learning after this change. Just three years after the outbreak, many of the problems had actually existed before, such as some distractions that had come up in work meetings. And the outbreak has boosted the pace of online learning, bringing to the fore issues in the online and education grind, and the contrast about online versus offline learning is becoming clear. While online learning offers a 'presence' in a virtual space, it cannot quite focus on a single activity as traditional offline discussions can. The temptations of cyberspace and the distractions of the space in which the body is located make it difficult to maintain complete focus. This requires a change in the external environment, the establishment of boundary management, and the intervention of a teacher or teaching assistant to ensure students' engagement and maintain the learning atmosphere.

This paper considers the issue of collaborative learning discussions in the context of online learning in the wake of the epidemic. Based on personal observations of small group discussions in Chinese universities the issue of low student attention and engagement is discussed. The strengths and weaknesses of the strategy are analysed following an analysis of research and literature.

The paper analyses three sections: teacher role, external environment and online management strategies. In group discussions, it is more student-centred, but the teacher's connection and encouragement can improve student engagement. Improving the environment is also more based on persuasion and advice, which is still partly dependent on the students themselves. Online management strategy is targeted management based on the network environment and traditional classroom experience. These strategies try to change the atmosphere and discussion of online learning into something close to a real "presence" in the real world, but still not quite the same as offline collaborative learning. In addition, due to the change of environment and discussion mode, this paper does not take into account the interactive communication mode and psychological change of students. The content of the analysis is based on personal experience, and it is inevitable that there will be personal bias and subjectivity.

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