

The Effectiveness of Online Discussion Forums and Recommendations for Chinese Higher  
Education

by

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**Abstract**

Online discussion forums as an important opportunity for knowledge exchange as well as a teaching method to provide learners with learning opportunities that do not necessarily have temporal and geographic barriers. This teaching method is widely considered to be an example of new technologies being used in a blended educational environment to supplement traditional face-to-face teaching methods. This project reviews the effectiveness of online discussion forums and the teachers' involvement in online discussion forums. The findings reveal that using online discussion forums might contribute to positive learning outcomes and that teachers play an important role in students' online learning progress. Therefore, it is of great value for Chinese teachers to build an understanding about their role in creating efficient online discussion forums. This Project also discusses how online discussion forums might be used effectively in China despite existing social, educational and political barriers.

*Keywords:* online discussion forums, participation, effectiveness, teachers' involvement

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## Introduction

This Project is presented in two parts. The first part includes a review of the literature and presents meta-study of recent publications on the effectiveness of online discussion forums used in post-secondary education worldwide. This study then informs the second part of this Project, which presents recommendations and analyses related to adopting and using online discussion forums for higher education in China.

## Background

Online discussion forums, as an important knowledge-exchanging pattern and teaching method, provide learners with learning opportunities that do not necessarily have temporal and geographic barriers (Nandi, Hamilton, Harland, & Warburton, 2011). This web-based online platform provides a virtual space for students to engage in social interactions where they can post ideas, discuss, and debate with others. In addition, online discussion forums are widely considered as an example of new technologies being used in a blended educational environment to supplement traditional face-to-face teaching methods (Cheng, Pare, Collimore, & Joordens, 2010). For example, as Table 1 demonstrates, among all Internet users in the U.S in 2015, 15% read or post comments in discussion forums. Among that 15%, online discussion forums are especially popular among college or higher-level students (for complete data, see Table 1 in Pew Research Center, 2015).

Table 1

*Demographics of Online Discussion Forums in the United States*

Categories <sup>a</sup>	Internet Users (%)
Total	15%
Men	20
Women	11
18-29	23
30-49	14
50-64	13
65+	8
High school grad or less	11
Some college	20
College+	15

*Note.* Reprinted from *Demographics of online discussion forums*, by Xiaoling Lyu, retrieved from [http://www.pewinternet.org/2015/08/19/mobile-messaging-and-social-media-2015/2015-08-19\\_social-media-update\\_04/](http://www.pewinternet.org/2015/08/19/mobile-messaging-and-social-media-2015/2015-08-19_social-media-update_04/).

<sup>a</sup>Among internet users, the % who read or comment in discussion forums such as Reddit, Slashdot or Digg.

According to Mokoena (2013), online discussion forums have been widely used for decades and researchers have studied the elements that influence the effectiveness of online discussion use. For example, one of these elements is students' participation in online discussion forums; such participation fulfills both the communication and interaction functions required in some college-level instruction, as long as students fully participate. Other elements researchers are studying include instructors' facilitation, students' motivation and student satisfaction with the use of online forums. Existing studies have also examined the above elements and the

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relationships between these elements and overall grades in a particular course offering on-line opportunities.

### **Personal Interest and Online Discussion Forum Status among Chinese College Students**

After searching online discussion forums development in Chinese university, I found that this cutting-edge teaching method has not yet been fully or correctly developed or implemented in China. The status of online discussion forums in China in recent years is that these forums are mainly used as extracurricular educational activities rather than part of normal course instruction (Yang, 2011). Furthermore, the format of online forums used in education in China tends to be only an “ask and answer” model, which means that the students ask questions and wait for the answers from their professors in the online discussion forum format.

Personally, I had not encountered this teaching method until I took EDCI 591 in University of Victoria in Canada. My professor set up online discussion forums in the course space, which gave us a stage on which to share our thoughts with each other regarding high school visits. I personally liked this method because giving an online response provided me with enough time to think about and prepare more comprehensive answers to the questions posed by others rather than responding immediately. Unlike face-to-face encounters in a course, I found as a second language learner that on-line forums provided enough time enable me to arrange my thoughts and then express these thoughts confidently in writing. After experiencing this teaching method, I hypothesized that the reason this teaching method is underdeveloped in China may be from learning habits as well as cultural and even political issues. As Canaves (2011) notes, “censorship is a constant presence in China, in subtle or not-so-subtle forms. State authorities have developed a range of strategies to manage the Internet: They block web sites, scan content for keywords, and hire people to steer online discussions in directions favourable to the state” (p.

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76). She concludes that China is facing severe social networking problems; online discussion forums in China do not help since these forums are not a space that enables Internet users to communicate freely. Under Chinese law, every Chinese Internet companies must ensure that each post on their sites does not subvert the state power, damage the honour of the state or disrupt social stability (p.76). Furthermore, neither students nor instructors are allowed to discuss sensitive political topics, even when they are related to their major study area. These sensitive topics include the names of leaders of Chinese political parties and criticisms of Chinese political or legal systems. For example, every online forum in China includes a filtration function. This filtration works like this: If someone writes a sensitive word (e.g., the name of the Chairman of a Chinese political party), that word will be automatically rewritten using symbols (e.g., &@) and the posting will even be deleted by the forum facilitator who acts according to forum regulation. These forum regulations work in accordance to the laws for using the Internet that are enacted and regulated by the Chinese federal government. Furthermore, no one is allowed to participate in international platforms, such as Facebook and Twitter because of Internet limitations and regulations in China. Therefore, if a professor in the university wants to develop a controversial topic in an online forum, he or she would need to gain permission from the university's management committee in advance and also from forum regulators working for university who could censor her or him. In actual practice, forum regulators monitor each topic posted in an online forum since this it is their responsibility to ensure that everything in the forum is legally allowed by the Internet laws n China.

Finally, in addition to the political limitation of online speech in China, education in most Asian countries is highly teacher-centered and structured (Ziguras, 2001). As a result some

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newer teaching methods might be not accepted by many Chinese students, such as online discussion forums with a high demand for self-regulated learning and innovative capabilities.

These barriers are not insurmountable. After conducting a comprehensive meta-study into the effectiveness of online discussion forums, I will explore and discuss in this Project how online discussion forums might be used effectively in China despite existing social, educational and political barriers. For example, without breaking the law, online discussion should be carefully designed by instructors. Some aspects discussed later in this Project include the importance of focusing on a strictly fixed topic of discussion, clarifying the goal of discussion, the time arrangement of discussion. In addition, Instructors should initially come up with some challenging ideas and encourage students to discuss and criticize those ideas. Only in this way will students will start to participate in the discussion and gradually learn to think critically in online group discussion.

### **Definition of Online Discussion Forums**

According to the Wikipedia definition, an Internet forum is an online discussion site where people can hold conversations in the form of posted messages. An Internet forum is different from chat room because those messages are more formal than chat rooms. Unlike casual conversation in chat rooms, students in an online forum post their thoughts and reply to others' messages in a more formal written language. While chat rooms tend to be in real time, online discussion forums have been widely used in distance education to extend learning activities beyond traditional classroom in both time and space (Xie, DeBacker & Ferguson, 2006).

Through online forums, students can have discussions with each other on course-related topics and contribute to the discussion by posting messages to an online message board. An online message board is a communication forum like Facebook or twitter that people can post or reply

to others' messages in the forum. Online discussion forums are also regarded as interactive tools that can help in establishing a platform for students and student discussions after class in the both asynchronous and synchronous ways (Nandi et al., 2011). Through the online forum, instructors and students can also actively interact with each other, share ideas, discuss and debate with each other anytime they are available. The tasks posted on the forum site and the content of the discussion forums facilitate an enhanced learning process by enabling the instant way of information and knowledge exchange. The extent to which these forums enhance learning is the topic of the literature review section of this Project.

### **Research Path and Questions**

I used the UVIC library and Web of Science database as my research data source. I initially searched using key words such as, "online discussion forums" and "effectiveness"; this approach returned many empirical studies related to online discussion forums. I then filtered the items using terms such as, "education" and, "peer review" studies and also defined my search boundaries as research conducted at the college level. I ultimately found more than 46 empirical studies examining the effectiveness of online discussion forums.

When it comes to "effectiveness," I hypothesized that effective online discussion forums would be effective not only as a means for improving a student's grade but also as a way to increase knowledge, understanding, and critical thinking through meaningful collaboration and interaction.

When I searched out the research literature on online forums, I found that "instructor participation" was always associated with, "effective online discussion." Nowadays, a computer often facilitates interactions between teachers and students (for example, email). However, while this mediation exists in China as well, the use of online forums is a relatively new concept in

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Chinese education system. For this reason, deeper and more extensive research concerning the roles and responsibilities of online teachers also need to be conducted in so as to make recommendations in Chinese situation.

My literature review is driven by the following research questions:

1. Is an online discussion forum effective in promoting positive learning outcomes?
2. What are teachers' roles and the nature of involvement in order to ensure an effective online discussion forum?

### **Literature Review**

#### **The Positive Outcome of Online Discussion Forums in Students' Learning Experience**

The first section is driven by the key research question, "Is the online discussion forum is effective in promoting positive learning outcomes at the college-level?"

##### **Introduction.**

Online discussion forums play an important role in tertiary education and many researchers have studied the effectiveness of these forums. However, there are few studies explicitly concluding that online discussion forums are actually effective in promoting students' academic or non-academic learning. What exists in the literature are a series of claims about online learning, therefore, a critical examination of these claims of the effectiveness of online learning forums is necessary. Part of existing literature claims that students will gain knowledge when using online discussion forums. Evidence for this claim can be found through their relatively higher grades or students' self-evaluation after using online discussion forums. Some published literature claims that online discussion forum encourage the development of students' analytic thinking through students' high level of participation in these forums. The literature also claims

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that online discussion forum promote students' writing communication skills; this claim based on a thorough and comprehensive analyses of students' posting or replies in online forums.

Therefore, based on the literature review, there are at least three categories to research regarding the effectiveness of online forums: (a) student gains in knowledge and understanding of course content through collaborative learning in online forums; (b) the development of students' analytic thinking through involvement in online forums; (c) promotion of better writing communication skills through forum involvement. Each of these claims is examined in turn:

**Students gain knowledge and understanding of course content through collaborative learning.**

Students who participate in the online discussion forums will more or less interact with others, such as posting comments, asking questions to instructors or replying to peers. The first claim is that students gain knowledge and understanding of course content through this collaborative process. There is a difference between "knowing" and "understanding." In this Project, "knowing" means that students only read the literal meaning of the course content and memorize the content; "understanding" in this Project refers to when students master the knowledge and can critique the ideas independently. In this Project the phrase, "collaborative process" means students interact with classmates, teachers and achieve understanding through communicating and socializing with others.

**Review.** Tables 2 and 3 shows the results from two studies and each study clearly reveals that the level of group discussion and interaction seem to have positive correlation with higher grades. Grades here represent the degree of student academic achievement. In these studies, grades were divided into four groups, high, medium, passing/credit and fail. In the first study (Davies and Graff, 2005), participation rate was measured by "blackboard hits," which relates to

students group access in online discussion area. The representative data in one of the course modules is shown on the Table 2. In the second study (Nandi, et al., 2011), participation rate was measured by the average number posts per student in each assessment range (assignment 1+2+3 and exam). The participation rate is also categorized into three groups. High refers to marks between 80-100, Medium refers to marks between 70-79, Passing refers to 50-69 and Fail refers to 0-49. As data from Table 3 illustrates, students who engage more in interactive activity did not fail or received only passing grades in the course performance. However, according to the difference between medium marks data and high marks data, students who participate and interact more in the online discussion forums do not seem to necessary receive higher grades.

Table 2

*Results from Two Empirical Researches Published in 2005 around Students Engagement in Online Discussion and Students Academic Grades*

Study	Sample	Participation Rate (%) or Average Number of Posts Per Student for Each Assessment Range			
		High	Medium	Passing/Cre dit	Fail
Davies and Graff (2005)	122 undergraduate students	78.63	80.53	78.09	67.72

Table 3

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*Results from One Empirical Researches Published 2011 around Students Engagement in Online Discussion and Students Academic Grades*

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Study	Sample	Average Number of Posts Per Student for Each Assessment Range			
		High	Medium	Passing/Credit	Fail
Nandi, et al. (2011)	346 undergraduate and post-graduate students	5.5	7.6	0.9	0.85

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Davies and Graff (2005)'s study indicated that among 122 first-year students, it appears that those who failed might have benefited from involvement. Even so, two-thirds of that group was involved, so the effect is small. Taking business degree course module EB1S04 findings as an example, the participation rate ranking from high, medium, passing and failed grades were 78.63%, 80.53%, 78.09% and 67.72%. The population in Nandi's study was larger than those in the study by Davies and Graff. According to Nandi's study, they studied 299 and 346 undergraduate students ( $n = 645$ ) in two online courses separately to find out how active they were in online discussion forums and whether the degree of participation affected the learning outcomes. According to the results from students' number of posts and grades they achieved, there was a trend that students who post more frequently tend to achieve higher marks in assignments and final exams. However, compared with the difference from medium and high grades participation rate, the data suggests that active participation is not the only reason behind the higher marks; there must be other reasons contributing to students' high quality of learning in the online discussion forums.

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One of these reasons may be student perception of the value of online forums. According to a study conducted by Palmer and Holt (2008), online discussion appears to have a positive effect on students' overall perception of learning outcomes. Their study analyzed in quantitative items and qualitative items the participation of 86 students in online discussion forums in terms of number of postings, length of postings, number of messages read and the quality of posting. The authors examined the relationship between students' participation and the students' final unit mark. The results from their study strongly suggest students' number of postings and quality of postings correlates significantly with students final unit mark. This conclusion is supported by many studies; there is a large body of research that suggests that students' participation has a positive correlation with students' academic performance (e.g., Cho, et. al., 2007; Cheng, et. al., 2011; Green et. al., 2014; Patel & Aghayere, 2006; Romero, et. al., 2013; Shaw, 2012; Webb et.al, 2004). When students participate in online discussion forums more frequently, students seemed to better understand the course content, based on the response from others. However, the correlation is thought to be slight because some researchers claim that there are various factors contributing to students' better performance (Cheng, et. al., 2011; Romero, et al., 2013). In contrast, some researchers do believe that there exists a strong correlation between students' performance and participation in online forums (Alstete & Beutell, 2004; Seethamraju, 2014; Wee & Abrizah, 2011). Comparing traditional course instruction with blended courses that include discussion forums, these studies found that students clearly improved in academic learning, based on overall final mark comparison, when participating in a course that includes online forums (Seethamraju, 2014). After taking many factors influencing student academic performance into consideration, such as gender, age, work experience, participation, some

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researchers still believe that the strongest indicator related to student performance is the use of discussion forums (Alstete & Beutell, 2004).

In other studies, interaction in online discussion forums seems to facilitate mutual learning between peers and instructors, which can help identify students with learning challenges and those with an enhanced understanding (Ebrahimi et al., 2016; Sher, 2009; Schellens & Valcke, 2006). The collaborative learning approach may ensure that students who excel in class may assist those students who experience learning challenges. In examining the effects of collaborative learning, some studies pay attention to whether students are committed to achieving positive learning outcomes as a team. For example, Sher's (2009) study of 652 students who participated in the online learning programs with online discussion forums revealed, based on the findings from 208 respondents, that student-student interaction as an independent variable was positive and significant when compared to students' perceived learning outcome and satisfaction. Those students who did not give a response were excluded in the research model because the case study only took students' perceived learning into consideration. The variables of student-student and instructor-student interaction were also computed in this study by taking the average scores of ten items on the respondent survey. Those items are measured using five-item scale adapted from Johnson, Aragon, Shaik, and Palma-Rivas (2000). Findings from this measured model revealed that student-student interaction and instructor-student interaction as independent variables were positive and significant with students' perceived learning outcome and satisfaction. Students' perceptions on effective online discussion forums from Ebrahimi's study also support this claim. Most MA students (85%) who participated in the study admitted that online interactions and discussions helped them understand course content and 60% of participants agreed that writing in online discussion forums help them better

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understanding course content (Ebrahimi et. al., 2016). Additionally, more objective data can be found in one study. In their study of the effect of collaborative learning, Schellens and Valcke (2006) found that students who engaged in more interactions and discussions resulted in a higher level in their knowledge construction.

***Discussion and caveats.*** The analysis of the preceding results shows that students may gain knowledge through collaborative learning in online discussion forums. There is a breadth of literature relating to the positive correlation between students' participation and learning outcomes (Alstete & Beutell, 2004; Cho et.al., 2007; Cheng, et. al., 2010; Davies & Graff, 2005; Nandi, et al., 2011; Romero, et. al., 2013; Palmer & Holt, 2008; Patel & Aghayere, 2006; Schellens & Valcke, 2006; Seethamraju, 2014; Shaw, 2012; Wee & Abrizah, 2011; Webb et. al., 2004). The common theme from the studies researching on the relationship between students' grades and participation is that students who participate more in online discussion forums are less likely to fail or receive low grades in a course. However, there might be no direct or linear relation between participation and the quality of learning. For instance, although we can see from the findings in a few studies that students who are active in on-line forums get higher final grades, the reason might be that there is a participation rate that counts for a certain percent of their final grades rather than students truly gaining knowledge at the cognitive level (Davies & Graff, 2005; Nandi, et al., 201; Webb, et. al., 2004). Besides, participation rate alone may not determine which students deserve high marks or medium marks; the quality of participation or interactions might also be taken into consideration. While some studies examine qualitative participation factors such as the quality of postings and length of postings into consideration, these studies could have another excluded variables in the analysis influencing students' final learning outcome, such as students educational background, cultural background, gender, age

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and characters (Cheng, et. al., 2011; Green, et. al., 2014; Romero, et. al., 2013; Seethamraju, 2014; Wee & Abrizah, 2011). Further research should consider how, if at all, these variables might influence the results. Moreover, as for other studies, the researchers rely on conclusions and impressions from students, which may not be enough to prove the effectiveness of online discussion forums. Both results from Sher (2009) and Ebrahimi et al. (2016) come from students as self-respondents rather than objective evidence such as course grades or instructors' observation. For instance, some students might gain confidence communicating with others in online discussion forums, which seems to be helpful for them to better understand course content. However, students may get the answers too fast with peers and instructors' help in the discussion forums so as to lose the capability to think independently in the final exams. Furthermore, there are only one-third respondents in Sher's study; responses from those self-excluded students might also affect the survey results to certain degree.

**Encourage the development of students' analytic thinking through high quality participation.**

The preceding section reviewed the claim that students gain knowledge through participating in online discussion forums. This section reviews studies that examine whether student participation in online discussion forums correlate with the development of students' analytic thinking.

**Review.** In online discussion forums, participants' substantive responses, instead of simply answering "yes" or "I agree," are of great value for students learning process because such responses at least represent certain levels of students' independent thoughts, reflection, research and engagement in debate (Mokoena, 2013). For instance, Szabo & Schwartz (2011) claim that unlike traditional teaching methods, the utilize of discussion board give students opportunity to

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read peer's descriptions, thoughts and reflect more outside the class. Szabo & Schwartz (2011) did research on whether the use of online discussion forums as a teaching method in a face-to-face course over two semesters results in increased critical thinking and use of higher order thinking for undergraduate students. They divided 93 students into a "traditional group" and "technology group." The only difference between these two groups was that students in technology groups were able to use an online discussion board as part of their coursework. The quantitative results showed that students in the technology group increased in academic performance and in their use of high order of thinking skills. The instructors rated each reflection and comment posted on the discussion board by levels of application, analysis, evaluation, and creation at the conceptual, procedural, and meta-cognitive levels and they found that students increased in the quality of their posting across the semester. Similar findings by other studies showed students' critical thinking is increased via the use of an online discussion board (Beckmann & Weber, 2016; Schumm, Webb, Turek, Jones, and Ballard 2006; Newman, et. al., 1997). When engaged in online discussions, students described more meaningful and complex questions and communicated with peers more in the online discussion board (Schumm, et. al., 2006). When using online discussion forums, students are found to frequently introduce outside knowledge and their personal experience so that they play intensely an argument role that demonstrates how think critically (Bechmann & Weber, 2016; Newman, et. al., 1997).

When it comes to students' analytic thinking in online discussion forums, most studies pay attention to discovering factors that contribute to students' high quality of participation and high order thinking (Derry et.al., 2006; Cox et. al., 2004; Mokoena, 2013; Park, 2015). The common factor of these studies is the importance of active and experienced instructor intervention. The findings from Derry's (2006) study revealed the reason why the facilitator's instruction is

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important to develop students' higher order of thinking and enhanced critical thinking skills. Along with teachers' continuing guidance, students gradually engaged with second-level of problem solving regardless of their failure in the first problem. With help from teachers, students seem to be able to better understand how to use the technology and notice details appropriate for the discussion needed to solve each problem. Other authors claim that instructors provide critical technical assistance during online discussion forums to facilitate the provision of constructive feedback and set clear expectations of the projected outcomes of the online learning process (Mokoena, 2013; Park, 2015). Based on the Mokoena's (2013) study, students were engaged in an online discussion forum for four months. Researchers have categorized posts that contained complaint and dissatisfaction as reasons for poor participation. The top three complaints focus on technical problems, unclear expectations and the lack of lecturers providing feedback (p.103). Similar to Mokoena's (2013) claims and arguments, Park (2015) also suggests that the instructors' involvement in the online discussion forums is crucial for students' critical thinking. In this study, 238 students recognized themselves as belong to one degree of a set of five degrees of participation. Active participants were those students who not only participated in the discussion but also posted or replied with high-quality messages. Nearly 50% of the students surveyed recognized themselves neither as active participants or semi-active participants; these students complained that they should be provided with clear objectives and assistance from instructors before they could participate.

When there are clear objectives, students seem to improve in critical thinking in online discussion forums. Cox, Carr & Hall (2004) conducted a study on the effectiveness of online chats within two Humanities postgraduate courses. By comparing with students' performance in

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two different courses, they found that students played critical roles in constructing knowledge in the second course, which had clear objectives.

***Discussion and caveats.*** Many studies indicate that engaging in online discussion forums encourages the development of students' analytic thinking (Beckmann & Weber, 2016; Newman, et. al., 1997; Szabo & Schwartz, 2011; Schumm, 2006). However, some findings are rather limited because they only focus on specific students. For example, Szabo & Schwartz (2011) focused on 93 undergraduate pre-service teacher education students. Further research should analyze students' critical thinking in larger sample sizes and also in other academic disciplines. Many studies concluded that students develop critical thinking if there exists active and professional instructor intervention (Mokoena, 2013; Park, 2015; Cox et. al., 2004). However, only justifying the negative side is not enough because students' complaints about poor participation can be too subjective (Mokoena, 2013; Park, 2015): Scholars are less likely to be able to compare the difference between active participation and passive participation. There could be other variables that make an effect on students' critical thinking, such as students' learning habits or personal interest in each topic. Finally, in Cox, Carr and Hall's (2004) research, although students play a critical role in the chats that have clear objectives, the chats that included these critical roles were dominated by three very vocal students, therefore, students might be encouraged by their peer facilitation and perhaps not exclusively by instructor intervention.

### **Creating better writing communication skills.**

In this section, studies are reviewed for those that examined whether online forums is an effective method for building learners' writing communication skills. Good writing communication skills in online discussion forums refers to the correct choice of vocabulary,

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correct sentence structure, writing in a more formal voice, use of standardized spelling and better logic in sentence construction. The success of online discussion forums has attracted discussions and experiments from different researchers. The focus of present discussion is a literature review of various researchers including existing shortcomings in each investigation. The primary objective in this section is to link past studies' experimental results to the idea that online discussion forums create better communication writing skills.

**Review.** Lundberg, Castillo-Merino and Dahmani (2008) investigated the effectiveness of online and face-to-face teaching in enhancing the ability of 710 macroeconomics students to answer questions coherently and accurately. Their research found that online discussion encouraged better writing communication skills than a face-to-face method. The findings indicated that students enrolled in online classes produced quality exam responses. In the case of those participating in on-line forums, ideas were elaborated with minimum writing errors. For online macroeconomic learners, each answer was supported with clear elaboration. On the other hand, face-to-face students generally tended to submit vague responses with numerous spelling mistakes. Similar findings can be found in other two studies. Compared to online discussion with only face-to-face discussion, only 12% of the comments posted to the online discussion contained writing errors because students seemed to be much more careful editing their postings. These findings suggest that in the greater public arena of online discussion forums peers may judge each other's written communication skills (Meyer, 2003). In the comparison of face-to-face classroom and online classroom as evidenced from observation notes and student reflections, the researcher found that discussion is found more efficient in the face-to-face classroom. However, the efficient discussion does not necessarily mean better communication skills. In contrast, the findings proved that students might spend more time in articulating their ideas and

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writing in words which is one indication of better *written* communication skills (Wang & Woo, 2007).

Unlike face-to-face discussion environment, online discussion forums always provide a chance to improve students' communication skills with instructors and peers through a writing-text format (Vonderwell, 2003; Cox et.al., 2004). Findings revealed that those students who hesitated asking questions or communicating with their instructors in face-to-face classroom settings showed improved written communication skills with instructors in online discussion forums (Vonderwell, 2003). Also, students' interviews indicated that second language English speakers found more opportunities to communicate with others in written form because they were always left behind in fast-moving chat in the face-to-face course (Cox et.al., 2004).

However, the development of written communication skills might be compromised by the asynchronous nature of online discussion forums, which could bring a negative effect on learning. In a case study of engaging students in a course that was taught written in consultation with business or based on an industrial experience program, the researchers provided students with questionnaires; students were asked to respond to their experience with online discussions and asked if they felt this experience improved their understanding of concepts. In their answers, students indicated their feelings as either: disagree, agree, strongly agree or impartial. Out of the total number of learners interviewed, more than 90% reacted as agree or strongly agree that the discussion board was an efficient method of answering the questions. Besides stating their opinions, the questionnaires also had comment sections where students could briefly explain their ideas. Among the comments, students complained that they have problems interpreting the answers to the questions posted because some questions are too vague in the business discipline.

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Therefore, written communication among participants in on-line forums might not be as accurate and free flowing as some research studies indicate (Baker, 2003).

*Discussion and caveats.* There are limitations to the results and deductions drawn by these authors. For every research, no experiment strictly points to the fact that online discussion actually improves students written communication skills compared with their previous written capability.

One research includes other external factors that overshadow the idea of the entire process. If a study aims at proving that the method has a significant impact, then it should only include a data set and variables that strictly point to the primary topic without the effects of other elements. For example, Lundberg, et al.'s (2008) exploration did not compare the quantity of hours of each class. Quality has to vary if learners are presented with unequal opportunities. The result could have been more accurate if the data included class hours. Also, online discussion forums might not have the direct relation with students' written communication skills. Although students were found to have few written errors when using online discussion forums, they might also already write well or write well under monitoring. Further research should compare students' written capability before and after participation in threaded discussions (Meyer, 2003).

Although most research aims to prove students' improve communication skills through online discussion forums, an important issue that should be taken into consideration by instructors is whether the forum actually does encourage the development of students' written communication skills. One consideration is the question design for each discipline. In Baker's (2003) research, shown in the comment section, students expressed that they have some level of difficulty in interpreting specific questions. Provided the questions are posted, instructors have the assumption that learners automatically understand instructions. Nevertheless, the revelation is

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inconsistent with the author's findings. Certainly, if online discussions create better learning results, then students should not experience problems interpreting posted questions.

### **Teachers' Presence and Participation as Effective to the Success of Online Discussion Forums**

This section is driven by the key research question, "What are teachers' roles and the nature of involvement in order to ensure an effective online discussion forum?"

#### **Introduction.**

Teaching presence creates a bond between students and teachers that is at the heart of the learning process. An easily accessible and reliable instructor can consistently satisfy the learning needs of students, and facilitate the achievement of positive learning outcomes (Pearson Education, 2016). Teachers have specific responsibilities. These include the selection of an appropriate instructional method to foster and develop a supportive learning environment (Pearson Education, 2016). With the emergence of new educational technologies, educators have expressed concern that the online learning platforms would hinder the direct teacher-student interaction dynamics. Nowadays, however, interactions between teachers and students are often mediated by digital technologies, including computers. Being a relatively new way of interacting, there is a need for further research concerning the roles and responsibilities of online teachers.

Effective online teaching must relate to an interrelationship between the three major presences (Anderson, et al., 2000): cognitive, social, and teaching. In 2000, Anderson, Garrison and Archer presented the community of inquiry (COI) framework providing perception into ways that online interaction can improve students' learning process and instructors' teaching quality. COI contains three distinct presences: social presence, cognitive presence and teaching presence. The key element among these three types of presence is cognitive presence, which is

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defined as the extent to which students can construct knowledge and confirm meaning through an online community, such as gaining in-depth understanding by exchanging ideas, succeeding in solving the problems and reflecting more after fully-prepared thinking (Anderson et al., 2000; Kanuka & Garrison, 2004). In the COI framework, teaching presence and social presence facilitate students' cognitive presence and improve their learning (Borup et al., 2012; Joksimovic et al., 2015). The second core element social presence in COI is not limited to establishing social relationships among learners; it also provides a comfortable and free space for students' meaningful and purposeful collaboration (Kanuka & Garrison, 2004; Joksimovic et al., 2015). Social presence and high level participation will cognitive presence Although teaching presence is not more important than those two, ineffective online learning usually happens when there has not been appropriate leadership and direction by the facilitator (Kanuka & Garrison, 2004). In this part, I will analyze the role and importance of teachers' presence in online discussion forums.

**Teachers' roles in effective online discussion forums.** Teachers play an essential role in facilitating discourse among students. Such discourse can take place through the active participation of students in online discussion forums, or through collaboration with other students during the learning process. Thus, collaborative dialogues should occur among student peers as well as between students and teachers. A teacher's involvement in online discussions helps to personalize, change and expand the topics that the students have covered in class (Pearson Education, 2016). The communications made by authorities help because a teacher can focus class discussions, raise vital questions, and moderate the active comments of students.

**Review.** Based on a study conducted on Qassim Medical School's first-year curriculum, the students who were evaluated highlighted a lack of adequate feedback and student-tutor

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interaction as the main negatives. However, the introduction of an online intervention mechanism, using 14 threads for all tutors, indicated that the entire academic staff was actively involved online in facilitating a 95% interaction rate with the students on discussion forums. Based on this study, not only students (60%), but also almost all the tutors agreed that instructor involvement in online discussion forums enhanced the interactivity and student-instructor collaboration (Alamro & Schofield, 2012). A study conducted at Hamdan Bin Mohammed Smart University, in the UAE, established that teacher presence in question and answer forums can help to improve the assessment of students engaged in online learning. For example, the most favourable feedback from students was that instructors' comments and detailed feedback facilitate individual learning (Awofeso, et al., 2016). The study also highlighted the fact that teacher presence is critical to achieving high learning outcomes. It concluded that the question and answer approach was more effective for increasing the quality of students' learning as compared to general online discussion forums.

An instructor's presence in online discussion forums has been established as critical. Research shows that course design, feedback, and facilitation provided by teachers in online discussions contribute significantly towards better learning outcomes (Hosler & Arend, 2012). The Community of Inquiry framework was used in a study to determine whether teaching presence through role-play facilitates critical thinking among students (Hosler & Arend, 2012). This study analyzed concepts such as instructional design and course organization, direct instruction, and facilitated discourse. The results indicated that, for students, cognitive presence or critical thinking was enhanced due to the teacher's efforts to design an organized course with clear goals. Online communication by teachers offered timely, direct and encouraging feedback

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(Skramstad, et al., 2012). The authors claimed that there was, however, limited research relating to the relation or association of teaching presence and cognitive presence.

According to data collected from students in an undergraduate business capstone course, analysts sought to establish whether the components of the Community of Inquiry framework exists in an online learning environment. This study also sought to establish the importance of teaching presence in student learning outcomes. The study's results indicate that teaching and social presence do influence cognitive presence, thus reaffirming the critical role of a teacher to student learning in a technologically-enhanced learning environment (Daspit & D'souza, 2012). The authors provided a theoretical recommendation for the introduction of a Wiki environment for the learning process because the Wiki environment could construct knowledge. Through dimensions such as knowledge exploration, construction, resolution, and confirmation, high level learning in Wiki environment can occur through these five stages. The authors emphasize that instructors in the online learning environment was as significant as the face-to-face learning environment to create the connections with students. They also suggested that future researchers should focus more on establishing advanced and better ways to teach students in virtual spaces.

Different researchers have established the significance of teaching presence in a virtual classroom. They based their research on the role of teachers, including the impact of course design and organization. For them, teacher presence should work hand in glove with the online teaching experience to achieve an effective learning outcome (Dunlap, et al., 2016). Thus, teaching presence and experience together facilitates a cognitive presence or critical thinking among students. For effective learning to take place, teaching presence must be accompanied with the teacher's ability to use an online class platform effectively. The concept of teacher presence requires experience in effective role demonstration. For instance, online teachers should

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know how to facilitate discourse and utilize course materials and activities, ensure organization and instructional design. To improve the impact of teaching presence on student outcomes, a survey was conducted on two groups of online students. Based on the students' perceptions of the factors that enabled their success, discourse facilitation and provision of direct instruction were the primary factors. These accounted for 45% and 44%, respectively, while instructional design and organization accounted for 11% of the factors required to ensure academic excellence for online students (Kupczynski, et al., 2010). In case the outcomes were not positive, the students felt that poor instructional design and organization were likely causes.

*Discussion and caveats.* In the Qassim Medical School case study, the teachers involved expressed a positive reaction to online interventions; they felt that it was a support to traditional face-to-face learning that could as well facilitate direct learning. However, the study focuses primarily on the role of teachers and quality indicators of success linked to collaborative online discussions, such as helping students finding resources, motivate students using blended approach, without indicating the frequency and timing of the teachers' involvement. The study conducted at Hamdan Bin Mohammed Smart University also reveals the importance of teacher presence in on-line forums. But, this study fails to account for the frequency of this presence and time-factor. For example, if students can access the platforms anytime, they can copy the answers or ideas posted previously by other students.

Based on the gathered evidence, it is evident that the majority of the research has sought to identify information linked to positive learning outcomes. Social guidance, thus, has been proven to be a significant support for online classes (Küçük, et al., 2010). However, Kupczynski, Ice, Wiesenmayer, and McCluskey (2010) have highlighted the fact that ineffective learning in virtual classrooms is mostly due to the failure of instructional design and organization. Hosler

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and Arend (2012) claim that there is limited research relating to teacher presence and cognitive presence. Contrarily, Daspit and D'souza (2012) believe that the link between teaching presence and cognitive presence has already been established, and the issue that remains is to be developed is an effective means of using online platforms to achieve better learning outcomes. Therefore, the focus should be identifying the significance of teaching presence in virtual classrooms and those factors affecting students' outcomes.

**Teachers' presence in online discussion forums to facilitate the establishment of a connection or relationship with students.** Having established that teaching presence enhances critical thinking, it is vital to identify if this presence also ensures building of relations with students and how such relationships impact students' learning outcomes. Teacher-student relations have been seen to affect the academic performance of students (Gallagher, 2013). Despite providing cognitive and social support to students, does the teacher's varied level of questioning and direct instruction impact how the students learn? Variations in teaching presence do influence student perceptions about teacher support, help-seeking initiatives from students, and final grades (Whipp & Lorentz, 2009). Teacher support is dependent on the availability of a teacher on the online discussions, whereas the help-seeking initiative is based on the teacher student relations fostered by online presence. Teacher presence therefore facilitates access to teacher support and promotes help-seeking initiatives that influence enhanced student productivity, which in turn can reflect positively on the final grades of students (Whipp & Lorentz, 2009). Course instructors can influence social aspects in an online learning environment, such as ensures student safety from negative comments by others (Çelik, 2013).

**Review.** Based on a research project designed to explore the opinions of students on the use of an online discussion board, students felt that such dialogues might not meet their individual

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learning needs. Therefore, recommendations had been made to introduce an online environment that was conducive for all the diverse members. According to an online qualitative questionnaire study involving 86 graduate students enrolled in an online master's program, an online instructor's presence indicated that he/she was also active in the face-to-face classroom and had a strong rapport with the students (Joyner, et al., 2014). The study showed that online teacher presence enhanced the connections of teachers to students through relations that promoted student participation and productivity. In this study, 78 comments from students indicated they felt they were connected with instructors through classroom technology and assignments. Twenty-four of the 78 comments highlighted that students felt online discussion helped them stay connected with instructors. They felt that teachers were engaged behind the scenes via receiving feedback even if teachers did not actively engaged in the ongoing conversation.

Through individual connections or relationships with students, a teacher can assess the separate strengths and weaknesses of individual students. According to a study conducted to determine student perceptions of the community of inquiry framework, the concept of experience helps in the development of rapport between teachers and students, motivating performance among them (Garrison, et al., 2010). Student perspectives have indicated the importance of strong instructor-student relationships in assisting positive learning outcomes.

Furthermore, instructors play important role in moving the discussion into positive direction and developing the strategies to overcome negative competition and bullying behaviour among class members (Clouder et al., 2006; Kehrwald, 2008). The authors researched how group dynamics changed as a group move from face-to-face to online corporation for learning. Through analysis of discussion thread transcript and written student evaluation, tutor insights towards students' anxiety, competitiveness, spirit and trust in face-to-face phase were found helpful in

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predicting the climate in online collaboration. Tutors need modify their degree of presence to move the subsequent online engagement into positive direction (Clouder et al., 2006). Findings from another study also proved that by making one mandatory or stating things like, ‘respond to at least three postings’, students will be less likely to hide behind their computers. Also, students will get to know each other better through introductory activities guided by tutors, which may be useful in preventing the negative comment and discord atmosphere (Kehrwald, 2008).

*Discussion and caveats.* The importance of the establishment of connections and maintenance of relations in online learning appears to emanate primarily from student perception. Motivation is spurred on by the interaction between teachers and students (Mikalayeva, 2016). Garrison, Cleveland-Innes, and Fung as well as Joyner, Fuller, Holzweiss, Henderson, and Young seem to share a common ideology, relating to the importance of teaching presence, as key to fostering positive relations between teachers and students, which subsequently ensure enhanced learning outcomes. Fresh research is recommended to study the perspective of teachers concerning the impact of instructor-student relationships on academic achievement. It is also essential to determine whether the varied models of teaching or questioning employed by the instructors have any impact on the formation of teacher-student bonds. Tutors’ intervention might balance the relationship among group members (Clouder et al., 2006; Kehrwald, 2008). However, tutors should carefully modify their own degree of presence because students might feel they are restricted expressing their ideas boldly.

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## Implications

### Introduction

Before pursuing a Masters degree at UVIC, I was an undergraduate student in a Chinese university that has a high reputation. Normally, all the courses in this university are traditionally taught in the format of face-to-face instruction in classrooms. The university did not provide students with online courses or use online discussion forums as an assistant tool for teaching. I was introduced to online discussion forum when I took EDCI591 at the University of Victoria in 2015. Our assignment was to discuss a topic proposed by our professor in an online discussion forum. In this forum, everyone in our class could post comments and reply others' comments after visiting a local primary school. The sample of our online discussion forum can be seen below in Figure 1.

Figure 1. Online discussion forums sample in UVic course spaces

### Collaborating on an haiku

Display replies in nested form ▾

**Old Boat**  
by [Student Fourteen](#) - Tuesday, 22 March 2016, 10:13 AM

Hi team members,

I really like the photo of the old boat. It reminds me of fishing with my brother when I was around eight or nine on Sproat Lake at dawn.

I have some ideas about this. Does anyone else have fishing experiences they can draw on?

Student 14

[Reply](#)

**Re: Old Boat**  
by [Student Seventeen](#) - Tuesday, 22 March 2016, 10:18 AM

Hi 14,

Actually, I would prefer to use the heart stone for our haiku. Any chance of changing your mind? Old boats do not resonate with me.

17

[Show parent](#) | [Edit](#) | [Delete](#) | [Reply](#)

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This kind of discussion forum left a deep impression on me because I found that it was useful for us to learn each other's ideas and the forum also improved my critical thinking about Canada's public school education system. From then on, I was curious about the existence of this kind of online discussion forum in Chinese higher education system. Therefore, I became eager to know whether this online discussion forum approach to teaching might work in China.

In the following two subsections, I briefly review the results from research on the efficient online discussion forum and teachers' involvement and then I will link these results to my implications section of this Project in order to provide suggestions for incorporating on-line forums in the Chinese higher education system.

**Looking back.** In the literature review section, my research questions led me to focus on the effectiveness of online discussion forum and teachers' participation in successful online discussion forums. For the effectiveness of online discussion forum part, the findings indicated that (1) students academic performance might be improved by using online discussion forum; (2) online discussion forums might enhance students' analytic thinking through high quality of participation; (3) students writing communicative skills may also be improved through discussing ideas via online discussion forums. For the teachers' participation part, the findings indicated that (1) teachers participation is necessary for successful online forums and will contribute to positive learning outcomes; (2) teachers' involvement in online discussion forums might facilitate the establishment of a connection or relationship with students. Taken together, these findings lead to suggestions for incorporating online forums in the Chinese higher education system.

**Looking forward.** According to previous studies and their quantities of research data, students' academic grades, analytic thinking and writing skills seem to have a positive

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correlation with their participation in online discussion forums. These three issues should be taken into consideration when designing online discussion forum plan for Chinese students in college level. In the first subsection, I make suggestions and recommendations on teachers' involvement in these forums. For the second subsection, I am going to address the gap discussed in the literature review section and propose the suitable online discussion forum curriculum plan that could be successful in a Chinese cultural, educational and political context.

### **Teachers Involvement in the Efficient Online Discussion Forums**

Discussion is a powerful method for fostering the goals of education. Discussion encourages the development of vital skills, such as critical thinking, reflection, and collaboration. It facilitates the exploration of topics beyond the confines of the classroom and allows students to share potentially significant information among themselves and their instructors. With the development of the Internet, online discussion forums are integrating more into tertiary educational systems (Wong, 2012). The fact that many students own smartphones and the vastness of the Internet connection in tertiary educational institutions, urban centers, and homes have enhanced the utilization of online discussion forums as a primary system of learning in many developed nations (Smart & Cappel, 2006). However, despite the existence of similar conditions in China, especially in urban centers, such platforms are hardly integrated into the system of learning (Rhema & Miliszewska, 2014). This subsection details suggestions and recommendations for the Chinese education system on how to incorporate online discussion forums as a means of instruction in higher institutions of learning within the country. It focuses on the role of teachers in enhancing the effectiveness forums in ensuring the realization of learning objectives.

#### **Roles of teachers in classic online discussion forums.**

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The success of online forums may depend on the kind of subject being taught and student needs. Therefore, like traditional student discussion, instructors will need to play a significant role to play in ensuring the success of the forum (Wong, 2012). The literature review reveals that teacher participation in online discussions is vital because this participation contributes substantially to positive learning outcomes. This involvement also allows the creation of good student-teacher relationships. However, the teacher should pay attention to the frequency and timing of their participation since this has a tremendous impact on student engagement. The collaboration of the class as a whole lead to success but high frequency of teacher participation will definitely increase the workload of teachers as well.

Primarily, teachers have a crucial role to play in the designing of the forum. The forum should be simple enough for students to use and access information even after the academic term ends (Bailey, et al., 2015). The teacher should advocate for the development of the forum to senior management within the learning institution in order to secure adequate funding for its implementation. This funding is also necessary to determine students' learning needs since they are the ultimate targets of the discussion panels. For example, the platform should allow the creation of a new forum during a specified period (perhaps 2-3 weeks). Each forum must have a title that explains the purpose of the discussion and the management should archive old forums to facilitate their long-term access.

The teacher also plays a significant role in encouraging student participation in the forums and guiding conversations. Students often need to recall the essence of the discussion with their counterparts (Smart & Cappel, 2006). Sometimes, the instructors need to introduce rules, which will require the students to remain active within the forums. Such regulations include grading of the students' overall performance based on the quality of their participation in discussion (Bailey

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et al., 2015). Although this move may initially seem coercive, the students slowly learn to invest sufficient time and actively creating and critiquing content within the forums.

Teachers should also facilitate productive discussion in the online forums. As such, they should contribute to such conversations without getting too involved to allow sufficient room for participation of their students (Bailey et al., 2015). Teachers could initiate group discussions by posting open questions in forums regarding the topic. They should frame such inquiries in a manner that encourages diverse views from students and generates further queries (Mazzolini & Maddison, 2005). Instructors should refrain from answering questions in the groups even when they appear to have challenged the students (Mazzolini & Maddison, 2005). Under specific circumstances, teachers may shed light on particular issues, which may assist the students in further analysis. Besides, they could step in if the conversation strays to inappropriate areas, which may not be useful in the realization of course outcomes. Overall, teachers should limit their contribution to the facilitation of further discussion among the students.

Evidently, the instructor's presence is vital for the efficient running of the online discussion (Foster & Stapleton, 2012; Whipp & Lorentz, 2009; Çelik, 2013). Like alternative forms of instruction, the teacher's presence strengthens the students' perception regarding the relevance and utility of the learning platform. Analysis of instructor presence in such forums can be evaluated from three broad perspectives: teaching presence, social presence, and instructor immediacy (Foster & Stapleton, 2012). As mentioned earlier, teaching presence comprises a proper instructional design and the facilitation of discourse among the students. Social presence refers to the degree of importance of the other individual in a personalized interaction and the consequences of such importance. A stronger social presence is associated with higher student performance and participation. Instructor immediacy, on the other hand, is the summation of

different behaviours, which enhance closeness between the student and their instructor; this closeness includes both verbal and non-verbal components. The former includes calling students by their names, use of humour, and encouraging discussion among students. Non-verbal immediacy comprises smiling, use of gestures, and vocal expression. Verbal immediacy is more important in the setting of online discussion forum, owing to the distance barrier often separating the members and their instructor.

### **Frequency and timing.**

Although the instructor's input is valued, input frequency and timing need to be adjusted to meet students' needs, as well as to motivate intensive discussions. Active teacher participation encourages that of the students. However, excessive instructor involvement may retard the goals of the asynchronous discussion because the participants may end up relying on the instructor for help rather than stimulate critical thinking and analyzing on hard problems. Nonetheless, the teacher needs to have a steady presence in the discussion, even if they do not actively contribute, to facilitate the realization of the course outcomes. Consequently, the instructor is required to evaluate the student needs as well as the most suitable level of participation. Their input should preferably be limited to certain hours to create a routine for the students and facilitate viewing the majority (Blake, 2017). The frequency of participation should not be too noticeable lest it discourages the students from exploring novel perspectives (Cai et al., 2010).

Even with limited involvement, it has been shown that the implementation of online discussions may increase the workload for the instructor (Mandernach, et al., 2007). Face-to-face interactions are simple because they are often concrete: with decided dates, work venues, and with the questions raised during the interaction gaining immediate responses. However, online discussion platforms are an ambiguous environment due to flexibility in terms of the

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expectations of the instructor. The teacher's participation is also altered significantly. Unlike a face-to-face scenario, the teacher cannot exploit non-verbal cues while teaching. As a result, the instructor is forced to dedicate more time than usual in the preparation of the class, which has contributed to high fatigue levels among such instructors (Mandernach, et al., 2007).

Participating in online discussions also entails responding to the inquiries raised by the participants in private. The instructor usually has to reply to emails and other personal messages sent by the students, had those messages been neglected at the discussion forum or otherwise postponed for later discussion. This situation, together with increasing student demands for instructor presence, has drawn many researchers into understanding the role of the instructor in online discussions. An analysis of these parameters and achieving a lucid understanding are all crucial to the implementation of the program in a new setting.

### **Considerations of Chinese Background**

As already mentioned, Chinese universities hardly use online discussion forums as a method of instruction. An analysis of different studies evaluating their impact reveals that such panels significantly improve the quality of learning (Li & Shaw, 2015). However, it is necessary to understand it in the Chinese context to adapt to classic expectations of teachers in online discussion forums to fit into institutions of higher education in China.

#### **Cultural considerations.**

Culture not only involves the way people do things but also includes their beliefs, expectations, values, and objectives. It is no surprise that culture inherently affects the delivery of education. Cultural norms regulate student behaviour and shape relationships with their instructors (Seethamraju, 2014). Hofstede's cultural index (2011) defines culture in four dimensions that highlight how these dimensions affect the student-teacher relationship. This

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understanding significantly facilitates the concept of teaching because education will be influenced by different cultures.

Hofstede's first dimension is *individualism vs. collectivism*. The Chinese culture is collectivistic because it values harmony over individual prosperity (Ryu, et al., 2011). Therefore, they design the systems with the consideration of group needs. The second dimension is *modesty vs. self-assurance*. Chinese culture upholds modesty highly and views it as a form of respect (Cai, et al., 2010). Such cultural modesty leads students to be relatively more reserved while dealing with their instructors.

The third dimension is *shame vs. guilt*. Chinese society is more shame-oriented as people worry more about how the community perceives them rather than the individual perception of themselves (Li & Shaw, 2015). A study showed that Chinese students in international universities avoid taking controversial positions often due to fear of damaging their reputation and that of other learners from China (Li & Shaw, 2015). The final dimension is *effort vs. ability*. Confucian philosophy, which holds a primary influence on Chinese culture, emphasizes the essence of hard work and endurance. As a result, Chinese accentuate more on effort than ability.

As for the collectivism cultural dimension, online discussion forums in China might encourage harmony in discussion rather than strong debate. Namely, most students will agree with others ideas rather than raising an objection. Secondly, Chinese students might seldom present their unique thinking towards a problem in online discussion forums because of modesty and shame-oriented characteristic. Thirdly, Chinese accentuate more on effort than ability which means students count too much on final grades than the development of ability in learning progress. They might only participate in the online discussion forum for getting the participation mark or asking help for question resolution but pay less attention on the important part not being

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associated with marks. For instance, they might not critique others' ideas or present their special findings.

**Educational context.**

Face-to-face learning is the primary mode of instruction in Chinese universities. Student attendance in class is compulsory; this method enables the teacher to receive visual feedback from the students thus asserting their comprehension of the information passed. In many universities in China, the lecturers provide a course outline, which includes details about student assessment. Typically, instructors deliver course content during scheduled classroom sessions in which the students often take notes (Balding, 2017). But in online discussion forums, teachers deliver course content directly through online space without the deep explanation more commonly taught through face-to-face instruction. Therefore, students might not know how to take key point notes for exam. However, some lecturers occasionally provide handouts. As a result, most classes in Chinese universities tend to be information-presentation sessions. Owing to the national culture, students tend to ask for clarification rather than challenge the instructors' position (Marinova, 2017).

**Political context.**

The Chinese government regulates teaching and discussion in universities. These institutions have to abide by the laws established by the state to prevent subsequent disciplinary action (South China Morning Post, 2013). Such regulations extend to foreign universities based in the country. Recently, the Communist Party declared a list of seven subjects as tabooed and prohibited their teaching or discussion in institutions. These issues include individual rights, press freedom, past mistakes of the Communist Party, universal values, judicial independence, crony capitalism, and certain aspects of a civil society. The party has labeled these subjects as

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constructs advanced by the Western world, which are inapplicable to the Chinese context and limit the efficient functioning of the government (South China Morning Post, 2013). The Chinese government is quite open about its restrictions on academic discussion and publishes the rules for easy access to students and teachers in all universities in the country (Foster, & Stapleton, 2012).

### **Overcoming these limitations.**

The analysis of the Chinese context in previous sections uncovers several hindrances to productive discussion using online forums in the country's universities. However, with appropriate modification of the traditional roles, the teacher may be able to implement online conversations and could thus reap the benefits that it confers.

### **Efficient Online Discussion Forums in Chinese University Curriculum**

A blended classroom environment seldom exists in the Chinese higher education system. Online discussion forums only exist in online courses, which have also been incorporated into university curriculum plans in recent years. Students' academic grades might be improved if students participated in online discussion forums. Therefore, students should be encouraged to participate in such discussions. In addition, deep learning does not happen in the Chinese education system because students prefer to state opinions rather than engage in critical thinking because Chinese culture encourage harmony atmosphere and Chinese students' shame-oriented characteristics in online discussion forums. Also, under the restriction of government, students might only engage in critical thinking in every domain except political dimension. Therefore, discussion topics should be carefully designed to encourage Chinese students' critical thinking. Finally, academic writing form in online discussion forums should be normalized because casual chats will not improve students' writing communication skills.

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**Encouraging student participation.**

Changing students' attitudes will be part of a broader objective of encouraging active student participation within the discussion forums. The conventional system of education teaches students to expect information from teachers and hardly analyze it. In such situations, the instructors may institute measures, which will require the students to participate in the online discussions, such as constituting it as a part of the overall grade (Abel et al., 2010). Moreover, Chinese emphasis on modesty may discourage students to air their views if they conflict with others (Abajaway & Kim, 2011). Therefore, the discussion forum should allow for the creation of aliases, such that the users can create and critique the content anonymously. Also, instructors will have their special access to know who is contributing via forum background program.

The teacher is likely to succeed if they are dedicated adequately to the usage of online discussion forums. The Chinese culture leads to students holding their professors in high regard and will thus likely conform to their teaching methods if asked to do so and trained sufficiently on the new system (Earl & Cong, 2011). The teacher will have a significant role of participation to show students by modeling questions in such forums and methods of critiquing, which favours further discussion. With time, as the students become more familiar with the new medium, the teacher can progressively participate less in the conversation and thus reduce their role as a facilitator.

In the literature review section, students' participation in online discussion forums are found to have a positive correlation with learning outcomes (Alstete & Beutell, 2004; Cho et al., 2007; Cheng et al., 2010; Davies & Graff, 2005; Nandi et al., 2011; Romero et al., 2013; Palmer & Holt, 2008; Patel & Aghayere, 2006; Schellens & Valcke, 2006; Seethamraju, 2014; Shaw, 2012; Wee & Abrizah, 2011; Webb et al., 2004). However, online discussion forums will help enhance

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students' understanding of course content and enable them to get relatively higher scores only if they show a certain level of participation. Compared with American students, Chinese students are less motivated in online learning and online discussions because of cultural differences (Shih & Cifuentes, 2003; Zhao & Mei, 2016).

Based on the findings from the literature review, unfamiliarity with advanced technology might be the primary reason for the lower participation rate. Therefore, necessary online guidance classes should be arranged in the curriculum. In such classes, several instructions should be taught to students, as follows:

1. The reason for using online discussion forums
2. The ultimate goal of using online discussion forums
3. How to use online discussion forums
4. The introduction of software and detailed instructions

In addition, the classes should enhance students' basic knowledge of online discussion forums.

Types of motivation count a lot in encouraging Chinese students' participation. Course relevance, reinforcement, and self-efficacy should be the top three motivation types considered. In Chinese education, grades always play an important role, from primary school to university, because grades are considered to be the most important benchmark to measure students' academic quality. Therefore, grade requirements can be one of the reinforcement motivation factors. For example, each person in the class should answer five questions or reply five times per term. Students will not be given academic points without meeting this requirement. Furthermore, there should be compulsory requirements for teachers as well. Most Chinese professors are busy with their work, and it is hard to find professors without making an

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appointment in advance. Therefore, the online discussion forum has become the only way for students and teachers to communicate. However, some students have complained about the low efficiency of online discussion forums because their teachers cannot answer questions in a timely manner. Due to their high workload, teachers may reply to students' posts after several days or even a week. Therefore, teachers should be obliged to reply to students' posts regularly or upload relative course materials at least if they do not have enough time.

However, as discussed in the literature review, students who get high scores might participate less than those who get medium grades because the former might participate with substantive answers rather than simply answering, "yes" or, "no." The level of participation might be one of the reasons why students who participate a lot receive relatively lower grades. In the literature review section, online discussion forums encourage students' critical thinking with a high level of participation. Therefore, encouraging students' high quality participation in the discussion should be another need. One way to think about this would be to divide higher education into two broad categories: sciences and the humanities. Regarding the humanities, students usually write or reply posts with their ideas. The online discussion forums for art students seem to be a stage to show their independent thinking within a specific topic. It is hard to judge whether the answer is right or wrong because those answers are too subjective. Therefore, teachers and students should click "like" to judge which answers should be given higher scores. Answers that get higher numbers of "likes" will get higher scores than others. However, everyone will get a basic score as long as they participate in the discussion for the sake of students who are afraid of expressing their ideas in the public. Figure 2 shows the Facebook "like" system as an example. This is a reply under a Donald J. Trump's post in the Facebook. We can see from the figure that this reply has already received 581 "like."

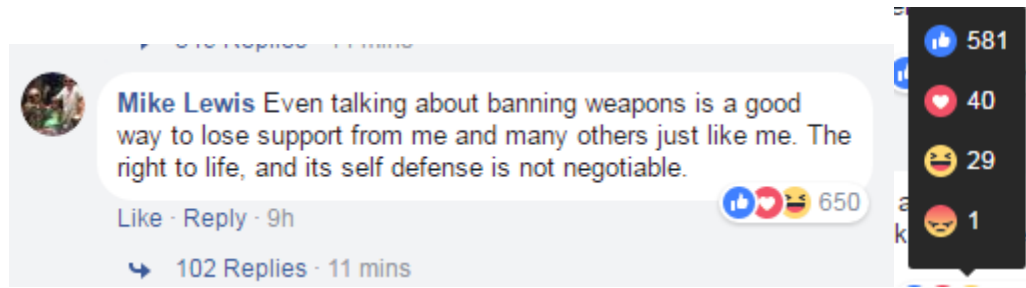


Figure 2. One Reply under a post from Donald J. Trump’s Facebook

However, for students from the science discipline, a precise answer is often the crucial factor for getting points; therefore, a “like” system is not useful, although professors’ marks count a lot. Teachers should mark everyone’s answers and award the most precise answer with the highest scores. A “bonus” approach can be conducted as a second step to encourage students’ high quality participation. In China, there are two public forums: *Quara* and *Baidu Knows*. Although they are both online question-and-answer communities, Quara is much more popular, and people always provide high-quality answers on Quara that show their high order thinking skills and independent ideas. One reason why Quara shows people’s enhanced critical thinking skills is that the Quara company awards those people with cash bonuses according to the degree of contribution to each discipline at the end of the fiscal year. This kind of bonus approach can also be used in academic online discussion forums. At the end of each term, students who get the highest scores will not only get a bonus, but also be awarded an honourable title. For example, students who contribute a lot to providing the precise answer will get the title of, “brilliant person.”

However, some issues exist in the online discussion forums in China related to critical thinking. Critical thinking should be associated with the Community of Inquiry model, which claims that learning exists in the interaction of cognitive, social, and teaching factors. In the cognitive presence, learners construct knowledge through triggering events, exploration,

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integration, and resolution (Hu & Yang, 2005). According to the literature reviewed, learners construct learning during the exploration and integration phase without the existence of resolution (Vaughan & Garrison, 2004). For example, most Chinese students exchange their ideas or agree with others' viewpoints, but seldom pose questions or raise doubts about what they learned because the topics designed by teachers are never controversial. The topics proposed by teachers should encourage students' critical thinking and provide chances for students' deep communication. In addition, teachers should play a dominant and directive role to move the exploration and integration phase toward resolution. Triggering events have a great influence on students' cognitive level; therefore, discussion topics should be well designed to attract students' independent thinking and encourage group intense discussion. However, all of the topics and discussion should be proceeding and controlled within forum law and political restrictions. For example, the discussion topic should be divided into several small questions at different levels—from easy to complicated, from more shallow to deeper. This strategy would help students create a knowledge scaffold and construct knowledge in a step-by-step manner.

As discussed in the literature review section, research aims to prove that students' written communication skills are enhanced through online discussion forums. However, some students complain that they sometimes have difficulty interpreting questions because text-based communication is not as explicit as face-to-face communication. For example, one of my friends studying engineering at the University of Southern California (USC) told me that most of their classmates thought communication in online discussion forums was not as efficient as face-to-face communication. They always become confused about others' replies to their questions because there are thousands of professional words in this discipline. Therefore, they need further communication in a timely manner. However, although learners can communicate in online

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discussion forums whenever and wherever possible, their communication might not be constant and can be interrupted in any condition. When they perceive a problem is emerging or hard to explain in asynchronous form, they prefer using one-to-one synchronous media, like using a telephone or Microsoft Service Network, to one-to-many asynchronous media (Hu & Yang, 2005). I recommend that there should be limited time for responses and discussion. For example, if the discussion is set to last for two hours, students must discuss the topic and reply to others during these two hours, without any external disturbances. The discussion time should not be short because, unlike face-to-face communication, text messages require more time for critical thinking and the contexts are more crafted and complicated than oral speech (Hu & Yang, 2005). In addition, written forms need to be strictly regulated. Academic written language is needed in text-based communication instead of oral language. Furthermore, most of the time, students do not pose questions to others directly or discuss answers further in written form because they lack self-confidence; consequently, they might make mistakes and confuse others (Hu & Yang, 2005). To solve this problem, online discussions should allow anonymous posts. Students should be allowed to choose whether they prefer remaining anonymous or using their real names during these discussions.

**Adjusting students' attitudes.**

Most Chinese universities insist on the utilization of face-to-face learning. This culture imparts an attitude, which is unsuitable for the existence of healthy discussions and debate among students within the institutions since they rely primarily on the information provided by their instructors and heed to this faithfully (Abel, et al., 2010). The teacher needs to change students' attitudes towards both the use of technology in learning and the role of discussions in achieving expected course outcomes.

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Strengthening the Information Technology (IT) departments in different universities could establish a foundation for the subsequent use of online discussion forums (Seethamraju, 2014). These facilities should receive adequate funding to facilitate the purchasing of advanced equipment, which plays a valuable role in enhancing student education (Blake, 2017). Student training on how to exploit these new technologies to accomplish the best results should accompany the integration of such tools (Marinova, 2017). For example, students should get an education about the benefits of discussing course content among themselves. After a long era of resisting external influence, China is finally began to adopt Western economic policies to revive her financial capacity. As a result, China is paying many Western economists to train its educators on their methods of teaching to enhance creativity among her students (Rhema & Miliszewska, 2014). Providing such information to the students should enable students to have an open mind towards the new system. Teachers can also use diverse online tools, such as voice threads, to initiate interaction with students. Such dialogue would be a continuation of in-class discussions. They could, on a routine basis, encourage students towards a culture of ongoing learning (Floyd, et al., 2011). An online teaching presence can facilitate, connect, lead, and work in synchrony with students; it would help the learners to achieve quality indicators like academic success, long-term improvement and effective application of knowledge (Frazer, et al., 2017).

#### **Defining the boundaries of discussion.**

The regulations instituted by the Communist Party banned the use of online discussion forums in several disciplines, such as political science. These laws have affected their participation in general because they even fear that their fellow students may report them to the authorities if they speak concerning the tabooed topics. Teachers should remind the students that the government has not allowed them to cross boundaries while creating and distributing content

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within the discussion forums. The teachers should monitor the online forums closely; although the students can create aliases, they should have access to the real names of the learners in the discussion forums and the linked ways to confront them whenever they cross into prohibited topics. The integration of these methods will enable the successful use of these forums in Chinese universities.

### **Conclusion**

This study was designed for doing a critical examination of the claims of the effective online discussion forums and the influence of teachers' involvement. The relationship between students participation rate and the final grades illustrates that using online discussion forum likely promotes positive learning outcomes and students' critical thinking might also be improved through high levels of participation in online forums. Furthermore, students' written communication skills might be enhanced after using online discussion forums; additionally, teachers' presence does affect the cognitive presence in the learning progress. Teachers' involvement in the online discussion forums enhanced the relationship with students, not only helping students find the right direction in discussions but also control some bullying behaviors in the discussion.

In the implications, I promote some suggestions for frequency and timing of teachers' involvement based on the research data from the literature review. Then I turn the direction to Chinese educational, political and cultural background. Under the consideration of Chinese background, I promote a practical curriculum plan for Chinese teachers to use in efficient online discussion forums. Encouraging the participation ranks first because there is little actual online discussion happening in Chinese higher education. With the consideration of Chinese Internet law, teachers should define the boundaries of the discussion; finally, students' attitudes towards

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this fresh technology should be adjusted positively by instructors to ensure student academic success.

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