

Factors Affecting Teachers' HOTS Implementation in Chinese College EFL Classrooms

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Abstract

Reviewing previous HOTS studies in China revealed that the implementation and instruction of higher order thinking skills had not been widely adopted in Chinese college EFL education. Despite the unanimous agreement on the crucial role of fostering students' HOTS, the incorporation of HOTS is affected by many factors. With a mixed-method approach, this research aims to investigate the factors affecting Chinese college EFL teachers' HOTS implementation from the teacher's perspective. Data was collected from 100 Chinese college EFL teachers through quantitative questionnaires and structured interviews. The findings of this research suggest that implementing HOTS in the Chinese college EFL classroom is challenged by various factors, particularly those related to teacher, student, institutional, and environmental factors. The results also provide empirical evidence of the insufficient knowledge and proficiency in implementing HOTS among the surveyed teachers during their language teaching process. This implies the need to establish a supportive HOTS-promoting environment involving teachers, students, and administrators in successfully implementing HOTS instructions in Chinese college EFL classrooms.

Keywords: Factors, Higher Order Thinking Skills, Implementation of Higher Order Thinking Skills, Chinese College EFL Teachers, EFL Classroom

Introduction

With the advent of the 21st century, there was an increasing emphasis on the importance of higher order thinking skills (HOTS) as a crucial requirement for navigating the information explosion (Halpern, 2003). Given the significant value placed on thinking, it is not surprising that researchers in the field of education have shown a great deal of interest in it. HOTS is becoming essential in education, especially in higher education systems (Zohar & Cohen, 2016; Lee, 2014; Roets & Maritz, 2017). As Carter (2004) suggests, thinking and language development are closely related. Cultivating higher order thinking in university English classes is operational and feasible. The instruction of HOTS in the language classrooms can propel the output of more higher order thinking ideas and influence students' language proficiency (Gibson, 2012).

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Before the 1990s, higher order thinking predominantly centered around first-language classrooms. Atkinson (1997) anticipated that critical thinking would inevitably transition to second-language (L2) classrooms. It has been argued that critical thinking is often associated with Western culture, and there is a belief that Asian students may struggle with critical thinking due to its lack of emphasis in Asian educational contexts and culture (Rashid & Hashim, 2008). In the context of China, foreign language education scholars focused on the higher order thinking of undergraduates in the 1990s (Huang, 1998). This initial attention sparked interest among several other scholars, including Wen & Zhou (2006); Liu (2005); Huang (1998), setting the stage for an exploration of higher order thinking in EFL classrooms within the Chinese educational landscape. The demand for HOTS is particularly pronounced in Chinese EFL education.

Language educators play a crucial role in nurturing HOTS in students. They are responsible for introducing diverse facets of HOTS to their students and guiding them in acquiring these skills during the language learning process (Shirkhani & Fahim, 2011). Despite the unanimous agreement on the importance of teaching thinking skills in the language classroom, many instructors fail to integrate them into their lessons. The nature of the instructional implementation, including the instructional approach (Ennis, 1989; Resnick, 1987) and particular teaching methods (Beyer, 2008; Halpern, 1998), are also recognized as key elements in determining the efficacy of higher order thinking instruction. Research has shown that in China's universities, EFL classrooms are mostly controlled by teachers who do most of the talking (Dai & Zhang, 2007; Fan & Wang, 2016).

Certain student and teacher-related challenges are considered important in influencing the effectiveness of HOTS implementation. Improving HOTS instruction is very challenging for many English teachers. According to some Chinese English scholars who have researched factors that affect English learners' HOTS, problems from English teachers are obvious (Zhang, 2019; Huang, 2013). Teacher-related factors, such as previous training and experience in HOTS instruction (Beyer, 2008; Pithers & Soden, 2000), are noted as influential in the effectiveness of HOTS implementation. On the other hand, hindering factors from students, such as attitude, motivation and language proficiency, are proposed by previous studies (Sparapani, 1998; Luk, 2012; Alhassora & Abdullah, 2017; Zhang et al.,2020).

Despite being a focus of study by several researchers in recent years (e.g., Liu, 2013; Wen et al., 2010), studies about challenges in implementing HOTS in Chinese college EFL classrooms still stay at the theoretical discussion and proposal stage (Huber & Kuncel, 2016; Zhang, 2019; Zhang et al., 2020), highlighting the need for a shift towards more empirical investigations. Therefore, the current study aims to explore the factors affecting Chinese college EFL teachers' HOTS implementation from teachers' and students' perspectives with the help of questionnaires and interviews. Given the significant presence of a sizable subgroup of EFL teachers and learners in Mainland China, this study is of great importance in exam-oriented and teacher-centered education environments in EFL settings, especially in a country like China.

Literature Review

Reviews of HOTS implementation in EFL Classrooms

Recently, researchers have explored the cultivation and integration of HOTS in the EFL context (Davidson & Dunham, 1997; Thompson, 2002). Delmastro & Balada (2012) assert that EFL teachers must comprehend critical thinking to cultivate autonomous learners capable of critically assessing their learning environment. Mok (2010) argued that language instructors

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are responsible for developing their students' language proficiency and fostering their thinking abilities. Grosser and Lombard (2008) asserted that the cultivation of HOTS should be initiated with educators, as it is essential to equip them with the knowledge and training necessary to teach and integrate higher order thinking effectively in their classrooms.

However, there are still many problems in implementing HOTS over the decades. Lauer (2005) found that teachers sometimes struggle to teach students thinking skills and integrate HOTS in lectures. Nagappan (2001) believed teachers struggled to integrate HOTS into their classrooms and were more accustomed to employing a teacher-centered approach. Utami et al (2021) conducted a descriptive qualitative analysis on factoring affecting students' higher-order thinking development in EFL classrooms and concluded that the role of the teacher played a significant part in influencing students' learning outcomes, including their thinking skills.

Thankfully, with the advancement of Chinese education, there has been a growing focus among Chinese educators on developing students' higher-order thinking skills. According to the Curriculum Requirements for College English Majors (CRCEM) issued by the Ministry of Education of the People's Republic of China (MOE) in 2000, English teachers are now required to foster students' abilities to learn, apply, and analyze problems and think critically (MOE, 2000). Unfortunately, implementing and teaching HOTS has not become a widespread practice in Chinese higher education (Huber and Kuncel, 2016). According to Wu (2017), there is a long-term tradition of rote learning and knowledge remembering instead of evaluating or creating for Chinese education, not to mention the summary-oriented assessment model. This may be attributed to the fact that Chinese English education prioritizes language skills imparted through a transmission model rather than fostering an understanding of knowledge or ideas that can be analyzed critically (Wen et al., 2010). Due to the prevalence of teacher monologue in traditional Chinese classrooms, including EFL classrooms (Li & Li, 2004), students have limited opportunities to engage in and contribute to classroom discourse. This lack of participation and encouragement for critical thinking skills impedes the development of students' ability to think critically and voice their opinions, ultimately hindering the promotion of critical thinking in the classroom. Research from Zhang et al. (2020) examined the perceptions of higher-order thinking and its instruction among EFL teachers in Chinese universities through a questionnaire and interviews. The results indicated that while EFL teachers in China strongly support incorporating critical thinking into the EFL curriculum and classroom instruction, they lack professional knowledge and struggle with its implementation in their classes.

Reviews of Constraints in HOTS Implementation

Upon reviewing the teaching and implementation of HOTS in this research, it was observed that despite the emphasis placed by scholars on the significance of HOTS, many educators still lacked the necessary skills to incorporate HOTS into their classrooms. While teachers clearly understood the components of HOTS (Yeung, 2015), many struggled to transfer their perceptions of HOTS into practical application (Zohar, 2006). Researchers globally have identified common obstacles among teachers and students that hinder the effective implementation of HOTS in the teaching process. Multiple studies have explored these obstacles from the perspectives of teachers and students and other relevant aspects. Table 1 summarizes some empirical and theoretical findings from a range of studies.

Table 1
Description of studies concerning hindering factors of HOTS implementation

	Examples of relevant studies
Factors	Examples of relevant studies
Student	Attitude:(negative perception)
factor	Previous research has demonstrated that a negative attitude toward answering HOTS questions accurately (Ho&Hyun,2011; Alhassora & Abdullah,2017) can lead to deficiencies in students' ability to acquire HOTS; Sparapani (1998) proposes hindering factors from students, such as attitude, interests and motivation, which is lately confirmed by Alhassora & Abdullah (2017). Language proficiency and basic knowledge
	Luk (2012) suggested that limited language skills impeded students' ability to effectively apply critical thinking in English, even though they can articulate certain concepts in their mother tongue. In the L2 classroom, difficulties in incorporating HOTS are exacerbated by the anxiety felt by non-fluent students in the L2, leading to limited classroom interaction characterized by rote repetitions, prompted responses, and uniform answers (Ngwaru, 2011).
Teacher	<u>Time</u>
factor	Several instructors have mentioned time limitations as obstacles to implementing HOTS. For example, Limbach & Waugh (1998) found that time was the main hindering factor since developing HOTS is an internal process, which was very time-consuming. Most lecturers did not have enough preparation time; Fakhomah & Utami (2019) stated teachers were still uncertain about the adjustments they needed to make when implementing HOTS. This is due to the time required to develop high-quality teaching plans in various forms. Teachers' knowledge of HOTS implementation Language teachers generally have more confidence in teaching language arts than in teaching HOT (Rajendran, 2001). Rajendran (2001), Zohar & Schwartzer (2005), and Hashim (2003) proposed that teachers' knowledge and skills of HOTS instruction accounted for a lot of the success of HOTS infusion. Rajendran (2013) contends that, in general, English language educators are inadequately prepared to incorporate or teach higher order thinking skills in their classrooms. It is evident from Tyas et al. (2019) that most of them still lack a clear understanding of HOTS and cannot distinguish its role in problem-solving.
	Professional training and resources Rajendran (2001) also points out that the lack of continuous professional training is another factor. There is a lack of support and resources to ensure a stimulating learning process for teachers and students. There is a significant need for improvement in resources to enhance teachers' professional knowledge of higher-order thinking and pedagogical skills to effectively teach HOT (Zohar, 2013).
Teaching/	The classroom arrangement layout is considered to be another factor
learning	asserted by Sparapani (1998). Teachers' focus on covering the curriculum
environment	and their rush to impart knowledge to boost academic performance often

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lead to students being exposed to a wide range of information and ideas, leaving limited time for activities that promote the development of HOTS (Leming, 1998).

Wen & Zhou (2006) argues that Chinese English undergraduates' learning materials and study methods tend to limit their cognitive development. Examination or assessment culture is recognized as an important hindering factor of HOTS implementation (Zohar, 2013; Ali, 2003; Michael, 2012).

After conducting a comprehensive review of the hindering factors of implementing HOTS, the researcher tends to work out their relevance to the Chinese college EFL teaching context using the design of questionnaires and interviews. The reviewed arguments above indicate a necessity to work out the hindering factors in incorporating HOTS within the Chinese college EFL classroom environment. This paper seeks to address the following research question: What perceived factors hinder Chinese college EFL teachers' implementation of HOTS in their EFL teaching?

Method

This study adopted a mixed-method design to investigate the challenges Chinese college EFL tutors faced in implementing HOTS. Using an explanatory approach, the researcher presented quantitative data from questionnaires and then elaborated on and complemented them with qualitative interview findings. Questionnaires were employed to gain a general characteristic of factors hindering HOTS implementation. According to Creswell (2012), the qualitative technique allows researchers to generate extensive or in-depth analyses and descriptions of cases. Therefore, in-depth interviews were applied for more detailed information than other data collection methods.

Participants

The participants in the teachers' questionnaire consisted of a group of 100 Chinese college English instructors from public universities, selected through snowball sampling. The diversity of respondents was ensured by including Chinese college English teachers with different years of teaching experience, professional titles, and educational backgrounds. Additionally, this research utilized purposive sampling to choose 15 English teachers at the School of Foreign Languages for International Business (SFLIB) at Hebei Finance University to attend the qualitative interviews. All 15 educators were responsible for teaching mandatory courses for English majors at HBFU.

Data Collection Instruments and Analysis

The study utilized two data collection instruments, namely questionnaires and structured interviews. The triangulation of data from these two sources was anticipated to enhance the analysis. The Likert-scale questionnaire consisted of five items assessing the challenges of implementing HOTS in EFL classrooms (rated as 1 for 'agree', 2 for 'not sure', and 3 for 'disagree') from two perspectives generally (three questions for teachers and two for students). The researcher developed these questions after examining potential obstacles to HOTS implementation. The reliability was also assessed using Cronbach's alpha, yielding a value of 0.75, indicating good internal consistency. On the other hand, the interviews of Chinese college EFL teachers were conducted on a one-to-one basis, face-to-face, for each

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respondent. The interview session took place after the questionnaires. All 15 interviews were audio recorded for ease of reference to further transcription.

Data from the Likert-scale questionnaires was processed and analyzed using descriptive statistical analysis, including mean and standard deviation, to provide a comprehensive overview of Chinese college EFL teachers' challenges in implementing HOTS. Thematic analysis was utilized to analyze the interview data. The researcher carefully examined and interpreted the transcripts through a data-driven method. When compared and combined with the numerical data from questionnaires, the results of the interviews offered comprehensive and detailed insights into the obstacles Chinese college EFL teachers face in implementing HOTS.

Results and Discussion

Quantitative Results from Questionnaires

To gain a general characteristic of factors hindering HOTS implementation, the researcher will first present quantitative results observed from the five items in the questionnaire. The quantitative findings of the questionnaire are shown in Table 2 below, including the mean values and standard deviations.

Table 2
A descriptive analysis of hindering factors in HOTS implementation

	Mean	SD
1. Teachers do not have enough time to prepare for the effective scaffolding of HOTS.		0.58
2. Teachers lack professional training in HOTS instruction.	2.70	0.50
3. Teachers lack systematic knowledge about HOTS scaffolding.		0.49
4. Students' language proficiency is not enough to deal with HOTS questions.	2.57	0.62
5. Students do not have a positive attitude towards HOTS.		0.62

The first three items in the table indicated a strong consensus among the participating teachers in this study regarding the challenges they encountered in integrating HOTS into their EFL teaching practices. The data showed that the average response value for all three statements was skewed towards 2.5 and above, indicating a high level of agreement among the teachers. The statement with the highest average value was "Teachers lack systematic knowledge about HOTS implementation" (2.72), suggesting that many college EFL teachers in the study do not have a systematic understanding of how to incorporate HOTS into their classrooms. Another statement with a relatively high average value was "Teachers lack professional training in HOTS instruction" (2.70). The results indicate that many teachers feel unprepared and ill-equipped to effectively incorporate HOTS into their pedagogical practices. The table also indicates that the teachers involved in this study shared a strong consensus, as perceived by their students, on the challenges they encountered when trying to incorporate HOTS into their EFL teaching. The statement "Students' language proficiency is insufficient for addressing HOTS questions" received an average score of 2.57, indicating a significant agreement among the EFL teachers who participated. This suggests that many Chinese English undergraduates do not possess the English language skills necessary for HOTS-based tasks. Furthermore, the final item revealed that students' attitudes toward HOTS were generally

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negative, with an average score of 2.31, highlighting a prevailing difficulty among English undergraduates in mastering thinking skills.

Findings from Interviews

The qualitative findings from interviews concerning hindering factors of Chinese college EFL teachers' HOTS implementing practices provide further evidence that supports and further explains the quantitative statements mentioned above.

Several factors hinder the successful implementation of teaching and learning or the integration of HOTS in Chinese college EFL classrooms. Responses to the identified obstacles in HOTS implementation observed from the interview data can be categorized into several aspects, particularly those related to teacher, student, institutional, and environmental factors.

Teacher Factors

According to the interview data, three teacher-related factors - constraints of time, incompetency in HOTS implementation, and insufficient support and resources of HOTS instruction were identified as having an impact on teachers' HOTS implementation.

Constraints of time. Eight out of the fifteen teachers who responded cited time pressure as a key factor in their struggle to incorporate HOTS into their lesson plans. For example, a respondent argued:

I think the biggest challenge is the design of teaching activities that can stimulate students' creativity and innovative ability, which is very time-consuming. As a teacher, I don't have enough time because I have other office or family affairs to do with every day.

Another participant expressed a similar idea:

As a teacher, you want to encourage students to finish HOTS activities, which will sometimes cause incomplete class extensions and teaching plans. It is very time-consuming to think over and prepare those staff before the class.

The participants in this study stressed the significant challenge of time constraints as a major theme. The qualitative results align with the statement in Item 1 on the questionnaire shown in Table 4.2, highlighting that teachers often struggle to allocate sufficient time for adequate preparation for successful HOTS integration. This is consistent with several prior studies on this topic. Limbach & Waugh (1998); Yen & Halili (2015) identified insufficient time as a significant barrier to the adoption of HOTS by educators. Fenyi & Jones-Mensah (2022) also concluded that HOTS demands a considerable time and commitment investment. It requires a significant amount of time to effectively engage the majority, if not all, of the students in thorough discussions, analysis, and the generation of new ideas or materials.

Teachers' incompetency in HOTS implementation. Another significant theme from the data was the teachers' acknowledgment of their limited expertise, knowledge, and certain negative attitudes toward HOTS implementation. Specifically, five teachers who were interviewed expressed their lack of confidence and proficiency in effectively integrating HOTS into their lessons. One of them explained:

The biggest challenge for me is how to design a proper task that will attract the students' attention and stimulate them to practice their thinking abilities.

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Another respondent shared a similar idea

The biggest obstacle is my deficiency in implementing HOTS. My theoretical foundation of thinking skills is rather weak, so I have to understand how to do this myself.

The interview findings can perfectly align with the quantitative statements mentioned in the teachers' questionnaire, precisely Items 3, which emphasize teachers' inadequate systematic knowledge in implementing HOTS (Table 4.2 above). While recognizing the important role of teachers in integrating HOTS in the EFL classroom, most teachers expressed reluctance in doing so due to their lack of expertise in planning, implementing, and evaluating HOTS in an EFL classroom, particularly with students of different proficiency levels. The findings in this aspect can echo many previous studies (Rajendran, 2001; Zohar, 2005; Hashim, 2003).

Insufficient support and resources for HOTS instruction. The insights obtained from the interviews corroborate the findings of Item 2 in the questionnaire. Two responding teachers lacked teaching resources or support to implement HOTS. As one teacher succinctly put it:

I hope I can have a small team to discuss with each other about how to prepare a lesson to capture the interest of students and improve their thinking abilities. But when I encountered some problems, sometimes it would take much time to find professional resources to refer to. Several studies have proposed teaching and learning resources and materials are crucial factors in the educational process. The lack of adequate teaching resources presents a considerable obstacle for most educators (Pillay, Singh, & Yunus, 2020). There is a pressing need for substantial resource enhancement to enhance teachers' proficiency in HOTS and their pedagogical knowledge for effective HOTS teaching (Zohar, 2013). Rajendran (2001) also pointed out that the lack of continuous professional training was another factor consistent with the views proposed by the responding teachers in this study. Therefore, to address these concerns, schools and higher educational institutions must provide opportunities for continuous professional support in resources and pedagogical development.

Student Factors

Responses to the identified obstacles in implementing HOTS from students' perspectives can be coded into several themes, including low language proficiency, negative HOTS attitude, and a scarcity of knowledge reserve.

Low language proficiency. Most responding teachers believed that students' English competence significantly hindered their HOTS implementation. Common views from the interviewed teachers regarding the correlation between students' language proficiency and the integration of HOTS in their instructional approach stated:

The most important thing is the language problem; students' English proficiency cannot support to express what they think clearly...

Another respondent shared the same comment:

...For higher order thinking activities, I worry about the student's English language level and subject base. For example, if they are asked to express the content, they may not be able to express it exactly, and the student's language skills may be a barrier.

The qualitative results align with the statement in Item 4 of the questionnaire, highlighting students' language proficiency is insufficient to deal with HOTS questions, as shown in Table 4.2. Similar results were seen when contrasting these findings with prior studies. Shafeei et al. (2017) discovered that students with limited skills face difficulties in adjusting to changes, comprehending material and questions, and offering responses. The findings also align with Luk (2012), who proposed that inadequate language proficiency hindered students from effectively demonstrating critical thinking in English despite being able to express certain

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notions in their native language. The findings of this study suggest that, due to the restricted competence of learners in English, it is difficult to actively engage them in the process of teaching and learning.

Negative HOTS attitude. Another factor impacting the implementation of HOTS, as found by teachers, is the attitude and motivation of students to participate in HOTS activities. Six interviewed teachers believed cognitive factors played a more dominant role in impeding students' acquisition of HOTS. Most students held pessimistic perceptions regarding HOTS, perceiving the corresponding questions as consistently challenging. For instance, one of them remarked:

The main problem is that students are used to standard answers. They are too lazy to think and unwilling to accept multiple possibilities. Students only learn to pass the exam and then learn the basic expressions.

Another responding teacher expressed a similar perception:

Perhaps some students are unwilling to think on their own, and some students might feel frustrated when they cannot provide the correct answer after thinking.

Overall, the qualitative results further explain the quantitative finding from Item 5 in the questionnaire, highlighting that students do not have a positive attitude towards HOTS. It appeared that students lacked an awareness of the need for critical thinking, having not been familiarized with this mode of thinking and consequently experiencing confusion when prompted to engage in it. Sparapani (1998) also put forward similar concepts. In his research, students could not grasp the importance of confronting challenges; instead, they favored a simpler approach to completing their tasks outside of the classroom environment.

A scarcity of knowledge reserve. Some teachers identified another significant impediment to the effective implementation of HOTS: students' limited exposure to diverse knowledge and experiences. In this regard, a respondent indicated:

Students' knowledge reserves are still insufficient. The knowledge they have accumulated is particularly insufficient for them to express critical ideas.

The teachers who responded noted that numerous students exhibit a limited perspective due to cultural uniformity, inadequate exposure to global knowledge, and restricted familiarity with diverse cultural customs and beliefs, all essential for English undergraduates to develop their HOTS. The findings align with research carried out in Malaysian school environments, emphasizing the prevalent challenges students face in cultivating HOTS as a result of a lack of their fundamental knowledge base (Alhassora & Abdullah, 2017). It was clear that rectifying this knowledge deficit was crucial in nurturing students' HOTS and enhancing their academic achievement.

Institutional Factors

Several responding teachers expressed that it was challenging to find a balance between implementing HOTS activities and finishing the teaching plans within the allocated time frame, as evidenced in the following comment:

The workload of HOTS implementation is too heavy and requires too much-advanced preparation if you want to impart thinking skills in class...Sometimes, I have the pressure to adhere to curriculum guidelines.

The study revealed that the EFL teachers' instructional choices in facilitating HOTS were influenced by time management and the stipulated requirements of the course. The findings in this study support previous ones in this respect. Black (2005) highlighted the challenges teachers face between incorporating HOTS into their lessons and completing institutional

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teaching demands within time constraints. The pressure to adhere to curriculum guidelines and meet educational expectations may overshadow the importance of integrating higher order thinking into the classroom, ultimately hindering its effective implementation. Additionally, the utilization of standardized tests, both national and international, hinders and contradicts the cultivation of HOTS (Zohar, 2013). As a result, teachers believed that integrating HOTS into the teaching and learning process was time-consuming, which led to them being unable to fully cover the English language syllabus.

Environmental Factors

It was found that the heavy burden of academic work and the exam-focused learning and teaching environment are major obstacles to developing students' HOTS and successfully implementing it to promote HOTS. As one respondent noted:

The first problem students face is that they are studying under the examination-oriented education system, so their thinking is actually examination-oriented, but the examination does not test for higher-level skills, especially in the area of language.

This prevailing pattern is evident, particularly in China, where standardized examinations dominate the education system. The findings above are consistent with many scholars investigating factors hindering HOTS implementation in classes (Choy & Cheah,2009; Yen & Halili, 2015; Zhang et al.,2020). Any adjustments to the curriculum, such as the integration of HOTS, without corresponding adaptations in assessment methods, will produce no meaningful outcomes. Wen (2006) contends that the learning materials and methods of Chinese English undergraduates may constrain their cognitive development. Prior research has also suggested that the influence of traditional Chinese culture significantly shapes the reasoning styles of Chinese students, thereby impacting classroom teaching (Tian & Low, 2011; Zhang et al., 2020).

Conclusion

This study has attempted to investigate hindering factors of HOTS implementation in Chinese college EFL classrooms. It can be summarized from both quantitative and qualitative findings that teachers' opinions of their obstacles in HOTS implementation can be categorized into various themes, particularly those related to teacher, student, institutional, and environmental factors. While the training of teachers could enhance their knowledge, beliefs, and implementation strategies of HOTS in EFL classrooms, there are challenges such as large class sizes, time constraints, and their impact on syllabus coverage, as well as the low levels of student's language proficiency and the inclusion of students with differing proficiency levels in one classroom that necessitate careful consideration from educational authorities. Therefore, there is an urgent requirement for professional development seminars and specialized training led by experts in HOTS. It is essential to equip teachers with the training needed to integrate HOTS instructional strategies into their teaching procedures.

Besides, this study contributed to bridging the gap between previous theoretical discussions and empirical evidence in the constraints of implementing HOTS in Chinese college EFL classrooms. The study empirically provides valuable insights into the practical challenges that educators encounter when integrating HOTS within the unique context of Chinese college EFL classrooms. Through interviews and surveys among teachers, the research yields rich data that illuminate the specific barriers to the effective implementation of HOTS, such as institutional, pedagogical, students and environmental factors. Theoretically, this study adds to the existing literature by synthesizing results to construct a comprehensive framework that

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identifies and classifies the constraints. This theoretical framework not only helps to comprehend the complexities of integrating HOTS in Chinese college EFL classrooms but also serves as a foundation for future research, offering valuable insights for educators and educational institutions seeking to reform their HOTS instruction approaches and enhance students' HOTS abilities within the Chinese EFL context.

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