

Integrating Bloom's Taxonomy and the Cognitive Academic Language Learning Approach in Teaching College English in China

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Abstract: English proficiency is increasingly crucial in China's globalized landscape, yet challenges persist in the effectiveness of college English education. Traditional methods often prioritize exam preparation over holistic language acquisition, leading to student disengagement and limited proficiency. This article reviews the literature on two effective approaches, Bloom's taxonomy and the Cognitive Academic Language Learning Approach (CALLA), to address these challenges. By integrating Bloom's taxonomy into lesson planning and adapting CALLA strategies, educators can enhance student learning outcomes and motivation in college English classes. Additionally, a sample listening comprehension lesson plan demonstrates the practical application of these approaches in the classroom context.

Keywords: College English, Bloom's Taxonomy, Cognitive Academic Language Learning Approach (CALLA), Lesson Planning, Listening Comprehension

1. Introduction

English has become an international language with the vast expansion of Western culture since the last century (Jiang, 2019).[5] Today, in Chinese society, qualified experts with high proficiency in English is highly needed (Liu, 2011).[7] To increase competition in a global marketplace, Chinese students need to attain higher levels of English, which will help them find their chances at the age of globalization (Redmond, 2020).[14] Therefore, English learning is on the prominent position that is both in college education and in students' personal lives. (Bolton & Botha, 2015).

So far, China's college English has existed for more than twenty years and has undergone many reforms (Gao, 2010). Before the changes, college English teachers followed the traditional teacher-centered teaching methods that are replaced by learner-centered approaches (Zhou, 2017). However, as Zhou (2017) reported, there are still many possibilities for current English study to improve in Chinese colleges.[17]

The purpose of teaching college English in some colleges is still problematic. According to Yang and Dixon (2015), the aim of learning college English in China is to pass the national College English Tests (CET 4 or CET 6). These colleges take students' English proficiency into account to decide whether or not they can graduate, and some of the colleges use certificates of CET as obligatory indications for graduation, resulting in that most students suffer from exam-oriented teaching (Gao, 2010).

Some college English teachers choose teaching objectives based on the content of CET. In Xu and Zhang's (2015) research, they addressed the reading capability based on the fact that in CET 4 and CET 6, reading comprehension weigh more compared with other sections on the text.[16]

Furthermore, some methods that teachers found practical and compelling may have little effects on students (Liao & Li, 2017). According to one study from Liao and Li (2017), all college English teachers like to apply brainstorming to their classes, and 85% of teachers like to use peer evaluation, and more than half (55%) of teachers like to use reflexive journals as an assignment. Nevertheless, only 24.1% of college students found brainstorming effective, 9.3% of them were in favor of peer evaluation, and 7.6% of students support journals (Liao & Li, 2017).[6] Many methods that college English teachers applied to are not suitable for their students, which resulted in students' less motivation in English study.

In summary, although college English studying has experienced the reform of teaching materials and strategies, there are still many problems in college English learning, teaching methods, and students' motivation, which deviates college English from its original goal.

This article aims to offer a review of the literature on three two effective approaches to improving Chinese college English learning, which are Bloom's taxonomy, and the Cognitive Academic Language Learning Approach (CALLA), and at the same time, provides one sample of lesson plan for application of Bloom's Taxonomy and CALLA in college English teaching in China.

2. Literature Review

2.1 Applying Bloom's Taxonomy for Chinese College English Objectives

In the first theme, two parts are divided to support this theme. The first part introduces how to apply educational objectives from Bloom's taxonomy into learning and teaching college English. The second part introduces the specific ways of the usage of Bloom's Taxonomy into choosing as well as creating English textbooks.

2.1.1 Applying Educational Objectives from Bloom's Taxonomy

Benjamin Bloom organized and classified educational objectives based on the design of his taxonomy in 1956 (Pourdana & Rajeski, 2013). The cognitive domain of this taxonomy is the focus, and six hierarchy levels experienced thorough a critical examination by numerous educational researchers (Ramirez, 2017).

Ormell (2006) criticized the omission of the development of imaginative understanding in Bloom's taxonomy. However, in reality, Ormell (2006) also listed the positive features by evaluating each level of Bloom's taxonomy. Firstly, even knowledge is inadequate as the main objective of education. It is still one basic level at the first level. Secondly, there is a distinction between comprehension and the knowledge of specifics. Thirdly, the application is clearly of central importance, and it is necessary to be added into any improved taxonomy. Fourthly, analysis is the behavior that most people wish to encourage. Fifthly, synthesis is widely considered important and covers students' ability to argue and present a coherent statement of a case. The last is evaluation which covers the needs for students that avoiding rushing to the conclusion, discontinuing judgment, weighing evidence, and transcending the superficial nature of the argument.[9-10]

Ramirez (2017) also stressed the importance of the application of educational objectives from Bloom's taxonomy. She first emphasized the term objectives which refers to descriptions of learning outcome as planned clearly. Then she elaborated six levels in Bloom's taxonomy and gives her practical examples of class activities. At first, she described knowledge as the most basic preparation of learning. Second, different from the knowledge level which relies on recall, comprehension demonstrates accurate basic understanding. Third, in the application level, students can gradually apply the newly acquired knowledge to new situations. Fourth, in the process of analysis, students need to break a large whole into small pieces and explore the relationship between them. At last, the two highest levels of learning are synthesis and evaluation. Synthesis involves combining different information and making a new one, while evaluation is taken as a critical criterion that originated from a comprehensive understanding of learning materials.

Pourdana and Rajeski (2013) did an experience which involving 32 undergraduate students majoring in English translation in Iran. Their purpose was to estimate the difficulty level of EFL texts. The result of the experiment confirmed the initial assumption that the EFL learners' performance was ranked based on Bloom's six levels. Also, the rank presented a descending pattern when the difficulty of texts was ascended. They concluded that when determining the different levels of difficulty of EFL texts, employing educational objectives from Bloom's taxonomy in the cognitive domain was a breakthrough. Furthermore, they stressed that EFL textbook designers could apply Bloom's taxonomy to design their material, and this is the next topic in this theme.[11-12]

2.1.2 Adopting and Adapting English Textbooks by Bloom's Taxonomy

Textbooks, as teaching materials, are necessary and reliable for students to provide input to practice (Adli & Mahmoudi, 2017). For teachers, textbooks are helpful since these textbooks inspire many lesson plans. English textbooks are also essential for students during English acquisition.

According to Assaly and Smadi (2015), the text is one of the basic components in English textbooks, and questions are the second component to help students achieve the intended goals. However, Adli and Mahmoudi (2017) reflected in their research that while texts in the textbooks meet students' needs better today, students' proficiency levels can not be consistent with the cognitive difficulty level of the

questions in English textbooks. They investigated many EFL textbooks in which whether or not reading comprehension questions fit learner's levels. They analyzed the data based on Bloom's Taxonomy and obtain results for this study. They found out that question types lack conformity with six levels in Bloom's taxonomy in the beginning and advanced levels of EFL textbooks. In the cognitive domain, the lower cognitive level refers to three learning abilities, which are knowledge, comprehension and application; while the higher level contains analysis, synthesis and evaluation (Orey, 2010). In conclusion, textbooks in Adli and Mahmoudi's study (2017) emphasize questions in lower-level more than at higher-level.

Ulum (2016) also found out the same problem in his research. In this research, the author aimed to find out how to design reading comprehension questions. By analyzing collected data, although both beginning and advanced questions were emphasized in the coursebook, lower-levels were still dominant and there was a lack of questions in higher-levels. According to this result, Ulum (2016) suggested that both lower-level and higher-level cognitive domain ought to be stressed in reading parts. Teachers need to according to Bloom's taxonomy to design or modify reading comprehension. Also, when teachers choose English textbooks, they need to use cognitive levels to evaluate and select textbooks which difficulty levels are suitable for students' current level.

Assaly and Smadi (2015) pointed out that students had lots of problems while reading the text. Students focused on the accurate pronunciation of each word in the text rather than reading comprehension. To improve students' reading comprehension ability, students need to move from the lower cognitive level or even the knowledge level to a higher one. At the same time, many teachers do not evaluate textbooks clearly and thoroughly before adopting them. They also do not have enough experience and competence to evaluate the textbook. Therefore, the researchers analyzed one textbook as one example to check what extent the questions fit students' proficiency level. Students from high proficiency level were selected which is different from researches made by Assaly and Smadi (2015), and Ulum (2016) study because the study by Assaly and Smadi (2015) focus more specific levels on higher-level in Bloom's taxonomy. The research in their study shows that this textbook successfully adopted evaluation level and analysis level, whereas synthesis questions were lacked in the textbook.

Furthermore, Assaly and Smadi (2015) gave several recommendations. Firstly, teachers have to evaluate the textbooks before adopting or adapting them. The textbooks ought to fit students' proficiency and cognitive level. Secondly, an excellent textbook is able to promote curriculum reform. Teachers are the promoters, and they need to learn from the textbooks and add other resources from their own experiences or other materials. Thirdly, different cognitive levels should be included in reading tasks in English textbooks so that students may have a chance to equip themselves with various competencies at school or university. Fourthly, not only teachers need to be aware of six cognitive levels, but also textbooks authors have to realize it. The textbooks created by the authors need to correspond with students' needs and motivate students' interests in English learning. At last, textbook authors have the responsibility to contribute to the reformation of the current curriculum through creating new textbooks.

In conclusion, according to the researches, many textbooks can not meet six levels by Bloom's taxonomy (Adli & Mahmoudi, 2017; Assaly & Smadi, 2015; Ulum, 2016).[1-3] Furthermore, some researchers gave valuable recommendations to teachers, textbooks' authors (Assaly & Smadi, 2015; Ulum, 2016).[12-13] However, there are some limitations to these researchers. All of the researchers investigated the relationship between reading comprehension and Bloom's taxonomy, whereas how to apply Bloom's taxonomy in more areas in English learning such as listening, speaking, and writing part still missed. Also, all literature researched applying Bloom's taxonomy for English learning, but few of them connected Bloom's taxonomy for English learning under Chinese college English this circumstance. The research is about how to use the experiences of applying Bloom's taxonomy in other countries and adapt these experiences to improve teaching college English in China. The other section offers Cognitive Academic Language Approach which can be combined with Bloom's taxonomy to constitute the handbook.[15]

2.2 Applying Cognitive Academic Language Learning Approach in Chinese College English Classes

In 1987, Chamot and O'malley (1987) put forward Cognitive Academic Language Learning Approach (CALLA). This approach helps learners apply prior knowledge and learning strategies to content area subjects. According to CALLA, three categories are contained, which are metacognitive strategies, cognitive strategies, and social-affective strategies (Chamot & O'Malley, 1987). Some researches proved that based on CALLA, learning strategies achieve effective results in the English class, especially in reading comprehension classes.

Gurses and Adiguzel (2013) investigated the differences before and after being taught to learn reading strategies in 18 university students in French. The researchers compared and calculated students' scores before learning reading strategies and post-test scores by Reading Comprehension Achievement Test. As a result, the findings show that after strategy instruction, students who were instructed to use reading strategies such as deducting and note taking decreased their linguistic problems. The study reflects the positive effect of the implementation of CALLA.

Nejad and Mahmoodi-Shahrehabaki (2015) focused on the effectiveness of strategies in one specific category in CALLA which is metacognitive strategy. This study investigated 111 intermediate EFL students. They were trained by five steps. The first is preparation. Students were helped to identify the strategies they were using and aware of the relationship between their mental processes and effective leaning. The second step is presentation. In this step, students were taught explicitly about various strategies in the metacognitive strategy. The third step is practice. After learning strategies, students needed to practice and choose useful strategies in an authentic learning task. The fourth step is self-evaluation. In order to develop students' metacognitive awareness during their learning processes, activities such as self-questioning were helpful. The last step is expansion in which students were inspired to find out effective strategies they thought and use these strategies flexibly to read new contexts. After the whole process, they were evaluated through their pretest and post-test scores by taking one reading comprehension test. The result showed that the metacognitive strategy instruction through CALLA had a significant favorable influence and improved students' reading comprehension performance.

The study accomplished by Guapacha Chamorro and Benavidez Paz (2017) offered a broader blueprint by using CALLA. They created a new CALLA-TBLE model which combined elements from CALLA and task-based language teaching model. Thirty-three first-year pre-service language teachers were involved in this study. By collecting and analyzing data from different literatures such as journals and surveys, the author concluded that the learners increased their language learning strategies as well as language production level after the instruction. Compared with other researches, which only focused on test scores or interviewees' opinions (Guapacha Chamorro & Benavidez Paz, 2017; Gurses and Adiguzel, 2013; Nejad & Mahmoodi-Shahrehabaki, 2015)[4-5], this study adopted more data collection methods. This study presented that the strategies were not only concentrated on reading comprehension strategies but also involved speaking, writing, grammar, and vocabulary. In conclusion, this study provides more possibilities to evaluate CALLA and combine CALLA to other models.[8]

To sum up, many pieces of literature proved that CALLA is effective in English learning. However, the application of CALLA in Chinese college English is rare, and this situation motivated the author to learn from global experiences, then created appropriate learning materials for Chinese college English classes.

3. A Sample of Listening Comprehension Lesson Plan

Listening Comprehension Lesson Plan	
Teacher: Yue Cai Class: college English Time: 90 minutes Students' number: 35	
Goal: The goal of this listening comprehension lesson plan is to enhance college students' listening comprehension ability by applying Bloom's taxonomy to college English classes so that they are able to listen and understand English academic lecture.	
Objectives: 1. Students will understand the structure of the class which combines with Bloom's taxonomy. 2. Students will be able to know and use some learning strategies from Cognitive Academic Language Learning Approach. 3. Students will understand the topic and content of listening material. 4. Students will be able to share their own experiences related to listening material.	
Materials 1. The video 2. The computer 3. The projector 4. Pencil to write and draw	

4. Conclusion

In conclusion, this article highlights the need for innovative approaches to address challenges in Chinese college English education. By integrating Bloom's taxonomy and CALLA strategies, educators can create engaging and effective learning experiences that promote holistic language acquisition and student motivation. The sample lesson plan provided offers a practical demonstration of how these approaches can be applied in the classroom context. Moving forward, further research and implementation of these approaches are essential to fostering English proficiency and enhancing educational outcomes for Chinese college students.

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