Research on the Effectiveness of English Unit Homework Design Based on Big Idea in Junior High School

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Abstract: Homework is a crucial aspect of curriculum that reinforce and expand upon classroom teaching and guide teachers in improving their instruction. After many years of reform, China’s curriculum has entered the era of core competence which should be taken by homework as its ultimate goal. Traditional homework often focuses too much on repetition and quantity over quality, potentially reducing students’ enthusiasm for learning. With the “Double Reduction” policy, homework must now focus on educational value with reduced quantity and higher quality. In this study, the integrated unit design of English homework based on big idea is introduced to the English course of junior high school, trying to verify its effectiveness in helping achieve the core competence of English subject from the perspective of homework. The research involved eighth graders from a Chengdu middle school and used core competency tests from the Jinjiang District for pre- and post-experiment data. Interviews with students and teachers showed a positive reception to this new approach. Despite some limitations, the study suggests that homework based on big idea can effectively boost English core competencies in middle schoolers.

Keywords: Big Idea; English Unit Homework Design; Junior High School; English Core Competency.

1. Introduction

1.1. Background and Purpose of the Study

The “Double Reduction” Policy champions the educational role of homework while striving to alleviate the burdensome workload students face during their compulsory education. Homework, a crucial educational element, has an established system encompassing its design, assignment, correction, evaluation, and feedback. Notably, the design of homework is fundamental, underpinning its effectiveness. Research highlights that poor design quality is a primary cause of homework’s ineffectiveness. Conversely, a well-crafted design can enhance students’ academic performance, sustain their interest in learning, and significantly reduce their homework load. Yet, current homework design practices face issues, including misalignment with teaching goals, lack of coherence, an overemphasis on knowledge over skills, and subpar design abilities.

The English Curriculum Standards for High Schools advise structuring the curriculum content around a central big idea and using themes to contextualize it, thereby fostering the development of core English competencies. In alignment with these standards, there is a growing consensus for integrated unit teaching based on a big idea within the educational research and teaching communities in China. Since homework is an extension of classroom instruction, it is crucial to align unit homework design with unit teaching design.

Moreover, unit-based homework design renders the process more systematic, aiding teachers in systematically considering the relationship between unit teaching goals, instruction, evaluation, and homework. This systematic approach not only enhances the collaborative impact of homework on teaching and evaluation but also ensures a more systematic and progressive homework content that avoids redundant and mechanical tasks. Additionally, it refines the homework structure and facilitates a more rational distribution of goals, types, difficulties, and time allocation for homework tasks. Therefore, integrated unit assignment design, rooted in a big idea, is a pivotal step towards enhancing the quality of assignments and reducing the academic load on students.

In comparison to traditional English homework practices, unit assignment design based on a big idea presents notable advantages. However, discourse on its value remains largely theoretical, with scant empirical research backing it. This study aims to implement and investigate this approach within the context of junior high school English homework to assess its effects on students’ English core competencies. The findings are expected to guide junior high school English teachers in adopting this innovative homework design approach and contribute to the empirical research on the transformation of English homework practices at the junior high level.

1.2. Defining the Key Terms

1.2.1. Homework

According to Cooper (1989), homework refers to tasks assigned to students by school teachers that are meant to be carried out during non-school hours. This definition which is most widely accepted in homework research exclude in-school tutoring, assignments set outside of formal education like tutoring centers and extra-curricular activities (e.g., sports). The dictionary of education divides homework into classroom homework and extracurricular homework. Classroom homework refers to all kinds of exercises that the teacher arranges for students to do in the classroom during class time to deepen and strengthen students’ understanding and consolidation of the teaching materials, timely find their deficiencies in knowledge and skills, and make corresponding corrections. Extracurricular homework refers to the learning activities conducted by students independently in their extracurricular time according to the arrangement and requirements of teachers. In China, it is generally considered
homework or assignment as extracurricular homework.

In the background of curriculum reform, homework should be redefined as a learning task which is carefully designed and arranged by the teacher to students in extracurricular time to complete, with various contents and forms, including review, preview activities, independent inquiry, social practice and other types of activities. It is an important means that links classroom learning, extracurricular activities and students’ life.

At the same time, homework should also shoulder the responsibility to cultivate students’ core competency, develop students’ multiple intelligence, and improve students’ creative ability and critical thinking ability.

1.2.2. Unit Homework

Wang Yuefen (2019) defines unit homework as the relatively independent and self-contained learning content under the same theme which could be a topic, a features, a core ability, a question or a comprehensive project task. On this basis, she proposed that unit homework generally refers to the collection of all assignments in a unit.

Guide to the design of high school English unit teaching points out that unit homework is a collection of thinking and operation task, designed by the teacher based on unit teaching objectives and contents, completed by students in their extracurricular time. Teachers should comprehensively plan the content, level, difficulty, form, time of unit homework.

In summary, unit homework should firstly designed according to the subject curriculum standards, the teaching requirements, the characteristics of the learning content and the differences of students; the unit could take the natural chapter originally designed in the textbook or the reconstructed chapter with the same theme; the unit homework could be formed by means of restructuring, adaptation, or original content. Teachers need to comprehensively plan the content, type, quantity, difficulty and evaluation of assignments.

1.2.3. Big Idea

The term big idea first appeared in David Ogilvy’s book Ogilvy on Advertising which is a term in marketing and advertising. In the field of education, big idea has its specific connotations, dating back to the structure movement advocated by Bruner in the 1960s. From the perspective of cognitive development, Bruner argues that every subject has a basic structure. Mastering the structure of a subject means having a good understanding of the subject and making many things meaningful and interrelated. Learning structure means learning to understand how things are interrelated. The core concept here is the carrier of connecting the course content, which is the conceptual category of big idea.

By the end of the 20th century, scholars represented by Wiggins and McTighe, Wynne Harlen, Erickson, Olson have conducted systematic research and elaboration on the theory of big idea, concluding the following attributes of big idea: (1) Big idea is a concept out of summarizing and abstracting. We think that big idea is the result of an abstract summary of different concepts on the basis of experience and facts. (2) Big idea is the concept of connecting and integrating concepts. It is believed that big idea is a collection of concepts, capable of connecting various relevant concepts and understandings into a coherent whole. (3) Big idea is a transferal concept. It is believed that big idea is beyond individual knowledge and skills, and can be transferred and applied on a larger scale.

1.2.4. English Big Idea

According to Wang Qiang (2021), in addition to the general attributes, the big idea of a certain subject also contains the special attributes of the subject. She classified English big idea into big idea of language and big idea of theme. Related to the knowledge of the subject itself, the big idea of language refers to the methods, strategies and knowledge structure used for expressing meaning that students have mastered in the process of English learning. While the big idea of theme, which is related to interdisciplinary characteristics, is embedded in the three major themes, including man and self, man and nature, as well as man and society. Through specific passages under the theme, it carries language knowledge, permeates the emotional attitude and values with educational value, and can help students construct new knowledge after learning, form the consciousness and ability to solve problems, and establish correct values. It is the concrete manifests of the key ability of problem-solving, correct values and necessary character that is subordinate, internalized and transferable.

1.2.5. English Unit Homework Design Based on Big Idea

It refers to designing a series of assignments based on the whole unit to help students consolidate and master the important knowledge and skills under the theme of the unit, and creatively express their understanding of the unit knowledge, culture and concepts. Teachers design unit homework from the perspective of big idea can prevent homework from being a fragmented mechanical patchwork, but an guarantee for consolidating classroom teaching with completeness, interest and relevance.

1.3. Theoretical Framework of the Study

1.3.1. Homework Design in the Curriculum Perspective

Assignments in the curriculum perspective are mainly represented by the relevant pedagogical ideas of Dewey, Taylor, and Bloom, which consider assignments not as the tail of teaching and learning, but as an important part of achieving the curriculum objectives, and both are important paths for curriculum implementation. The biggest difference of this perspective is that the functional value of homework is elevated to the same level as that of teaching and learning, which has different influence on the goal, content, form, evaluation of homework design: (1) the objectives of the assignment design are mainly to achieve the curriculum objectives, and are adjusted and designed according to the actual learning situation of students. (2) The assignments are designed to include not only subject knowledge and skills training, such as memorization and understanding, but also practical and project-based activities that are complementary to the content of teaching and learning; (3) The assignments are designed to include not only written assignments, such as computation, reading and analysis, and writing, but also non-written assignments, such as scientific research, physical exercise, art appreciation, and social and labor practices; (4) The completion of the assignments is not required to be completed independently, but rather focuses on collaboration and teacher guidance, and encourages students to complete projects or assignments with a longer period of time; (5) The use of the results of assignment design emphasizes the diagnostic effect on the achievement of course objectives, and thus adjusts and improves teaching and learning. It can be seen that the design of assignments under the curriculum is more in line with the core requirements of the “Double Reduction” policy, which is conducive to the achievement of
achieve the cultural awareness.

(4) The Big Idea Contribute to the Achievement of Learning Ability

The goal of learning ability is stated in the Curriculum Standard as to choose appropriate strategies and methods, monitor, evaluate, reflect on and adjust their own learning content and processes, and gradually increase their awareness and ability to use English to learn other subjects (MOE, 2018). The big idea contributes to the achievement of learning ability. The big idea is a methodological principle, and knowledge about it is a human tool for describing and understanding the world, a cognitive framework or structure. It is both knowledge and a tool that facilitates students’ understanding, construction, and transfer of knowledge, and can also be used to counteract knowledge and bring what they learn to life. The big idea allows students to use English to make cross-disciplinary links with other subjects, allowing existing knowledge to become a means of acquiring more knowledge and fundamentally enhancing students’ learning abilities.

1.4. Significance of the Study

In theory, this study helps teachers understand the value of applying unit assignment based on big idea to improve the quality of English homework by clarifying the connotation of big idea and unit assignment, as well as their relationship with the cultivation of English core competence. It is helpful for teachers to construct the knowledge system around the big idea, which provides a theoretical basis for the teachers in the process of unit assignment practice based on big idea.

This study not only enriches the theoretical basis for English unit assignment based on big idea, but also try to verify the effectiveness and feasibility of it empirically by carrying out an experiment among 35 students of the 8th grade, so as to provide a new perspective for the transformation of English homework design methods and help achieve the goal of the Double Reduction, and further promote the innovation and optimization of English curriculum revolution.

2. Methodology

2.1. Research Questions

This study will conduct an experiment in a junior high school. The research attempts to study the following question: Can English unit homework design based on the big idea effectively improve core English competency in Junior High School students?

2.2. Participants

The participants of this experiment were 35 students from a junior high school of Grade Eight in Chengdu. The study was conducted throughout the second semester of their eighth grade. This study mainly adopts the experimental research method, and the experiment has gone through the pre-test, mid-test, and post-test of students’ comprehensive English learning, and questionnaires to multiply argue that the overall assignment setting of middle school English units under the big idea can effectively implement students’ English core competency.

2.3. Research Methods

This experimental research was both in nature qualitative and qualitative. The tools used were tests, interviews and questionnaire.
Pre-test
To identify participants’ level of English ability before the experiment I did a written test and a oral test at the pre-test stage, which was the first monthly English core competency test in Jinjiang district with good reliability and validity. In addition, a questionnaire on English homework of Junior Middle School Students was conducted at this stage to find out the status and attitude of participants’ English homework.

While-test
During the three-month test, the new learning mode that adopts unit design of English homework based on big idea was conducted among the whole class. And in the middle of the test, the participants had the second monthly English core competency test in Jinjiang district with good reliability and validity.

Post-test
After the experiment, questionnaire, tests, and an interview were conducted to test students’ English core competency level and attitude. The test in the post-test is the third monthly English core competency test in Jinjiang district with good reliability and validity. The qualitative data were collected from an interview which serves as a supplementary tool to understand the influence of the unit assignment based on big idea on their English core competency and their experience on the new form of homework. The subjects of the interview were students and teachers to see their attitude towards the new homework. Six students were chosen randomly from the high score group, middle score group, and low score group to ensure the universality. Two teachers were invited to join the interview.

2.4. Data Analysis
The average scores of the for this class were respectively 76.3, 77.59 and 80.56 during the pretest, mid-test and the post-test. The three average scores show an upward trend in students’ English performance. Therefore, to some extent, the use of unit assignment based on big idea in junior middle school can improve students’ English core competency. The average scores of the oral tests for this class were 40.34 on the pre-test, 43 on the mid-test, and 44.20 on the post-test. No students scored a full score of 50 on the pre-test and mid-test, while 5 students scored 50 on the post-test. The pass rate of the pre-test was 47.14%, the pass rate of the mid-test was 62.56%, and the pass rate of the post-test was 75.29%. The results of the English oral test showed that the unit assignment based on big idea can improve students’ ability to express their ideas and solve problems in English.

By analyzing the results of the questionnaires, the percentage of students who were able to complete the assignments increased from 85.71% to 94.29%. In the pre-test, students did not have a clear idea of the type of homework they preferred, but the statistics showed that they preferred homework that was related to real life. In the post-test, the statistics showed that students can clearly list the types of assignments they like and the details of them, and the main reason is that they are related to their real life. The results of the student survey indicate that the unit assignment based on big idea contribute to enhance students’ motivation to learn English.

The result of the interview for teachers and students has got expected findings. Both students and teachers hold an active attitude towards this new mode of English homework which helps stimulate students’ English learning attitudes and sense of achievement.

2.5. Ethical Issues
Prior to each interview the respondents were required to complete and return an informed consent form. Again, the content of this document was provided in both English and Chinese in order to convey the information about the research in a meaningful and understandable way. Perhaps the key ethical concern of this research was to assure the schools and teachers involved that their anonymity would be preserved and the recordings will be properly dealt.

3. Conclusion
3.1. Implications of the Study
In summary, from the results of students’ English tests, the questionnaire, and the interview it can be seen that the English unit assignment based on big idea can improve the students’ English proficiency, learning ability and English usage ability, and ultimately promote the formation of students’ disciplinary thinking, enhance their creative thinking, and implement the English core competency, which means the hypothesis of this study gets proved.

3.2. Research Limitations
First, this experiment was conducted only in a class of a middle school in Chengdu, so the sample size of the study is not big enough to represent the situation of a bigger student population. Second, the experiment was conducted in a relatively short period of time, only three months. Third, the test papers were only related to the English core competency test in Jinjiang district. Therefore, it is worthwhile for us to further explore the English unit assignment based on big idea and practice it in more schools.

References