

# Exploring Big Ideas-based Holistic Unit Teaching Design from the Perspective of Ausubel's Subsumption Theory

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**Abstract:** Big Ideas-based and Thematic Meaning-focused Holistic Unit Teaching Design (BIHUTD) is playing a significant role in cultivating students' English core competences. In a Big Ideas-based Holistic Unit Teaching process, the inquiry of thematic meaning of a unit is literally the construction of big ideas. This thematic meaning is then closely connected with other sub-themes of each text by leading those subordinate discourses. The prominent role of this concept of association is in concordance with the relatability between new knowledge and cognitive structure in Ausubel's Subsumption Theory. From the perspective of Meaningful Learning and Systematic Forgetting (Ausubel, 1968), more profound insights can be obtained regarding the underlying mechanism and practice strategies of BIHUTD. Through BIHUTD, meaningful learning can be achieved by building substantive association between thematic meaning and sub-themes of texts; long-term memory can be achieved by providing various meaningful texts and contexts related to both sub-themes and big theme; cognitive pruning can be achieved by incorporating specific and fragmented items and sub-themes in each text into the generalized thematic meaning of a whole unit. In BIHUTD, teachers can manufacture meaningfulness by setting objectives, organizing content and arranging activities based on the big theme, promote optimal pruning procedures by supplementing and integrating textbook discourses with different perspectives to construct thematic meaning, and facilitate communicative competence by providing production activities to deepen thematic meaning.

**Keywords:** BIHUTD; Meaningful Learning; Mechanism and Practice Strategies of BIHUTD; Subsumption Theory; Systematic Forgetting.

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## 1. Introduction

The implementation of General Senior High School Curriculum Standards (the Ministry of Education, 2018) marked a new phase in Curriculum Reform of Elementary Education. To add momentum to the Reform and put New Curriculum Standards into practice, Big Ideas-based and Thematic Meaning-focused Holistic Unit Teaching Design (BIHUTD) is playing a significant role in cultivating students' English core competences. Theoretical studies focusing on this 'hot concept' are still in great demand. Instead of being the collection of several texts on a topic, a unit is a complete learning event or story (Cui, 2019:11). It requires teachers to construct a theme-led holistic instruction unit with several logically related sub-themes of discourses by analyzing and arranging teaching materials guided by Standards and the specific theme of that unit while taking students' proficiency and needs into consideration (Wang et al., 2021). In the direction of exploring thematic meaning, based on studying the text content, and with the thread of designing activities which integrate teaching, learning and evaluation running through, BIHUTD can help teachers be engaged in a more effective lesson preparation and instruction (Li, 2022:41). It can help teachers achieve the fundamental task of moral cultivation by helping students conduct deep learning, generate long-lasting knowledge structure, develop problem-solving ability in various situations and build positive ideas and values. Besides, this frequently discussed concept of big ideas, as the basis of understanding, is a meaningful model connecting fragmented knowledge points. It can be seen as the refined superordinate concept out of various fragmented

concepts (Whiteley, 2012:41-45). A big idea is a concept, theme, or issue that gives meaning and connection to discrete facts and skills (Wiggins & McTighe, 2005). In a Big Ideas-based Holistic Unit Teaching process, the inquiry of thematic meaning of a unit is literally the construction of big ideas. The thematic meaning of a unit, like big ideas, is a meaningful model connecting fragmented and isolated content of various discourses. It can be found that there is a whole-part relationship between thematic meaning and fragmented content. In other words, fragmented content can be subsumed into the thematic meaning, which is consistent with Ausubel's Subsumption Theory (Ausubel, 1968). It holds that new materials interact with each other in cognitive field and can be subsumed into a bigger concept. The fact that material is subsumable or relatable to the old knowledge in cognitive structure explains its meaningfulness (Brown, 2007:91). Together with Systematic Forgetting, which holds that cognitive pruning or intentional forgetting is the second stage of meaningful learning (Brown, 2007:94), this study will launch a thorough examination into the mechanism and practice strategies of BIHUTD from the perspective of Ausubel's Subsumption Theory, expecting to improve teachers' proficiency, facilitate the cultivation of students' core competences and provide more ideas and thoughts on BIHUTD.

## **2. The Underlying Mechanism of BIHUTD**

### **2.1. Meaningful Learning Achieved by Building Substantive Association between Thematic Meaning and Sub-themes of Texts**

The cognitive theory of learning put forth by Ausubel can be understood by contrasting rote learning and meaningful learning. Ausubel stated that rote learning is the process of regarding knowledge as discrete entities that are relatable to cognitive structure only in a random manner without the establishment of meaningful relationships (Ausubel, 1968:108). On the other hand, meaningful learning, or subsumptive learning, is a process of anchoring new material to relevant stable knowledge in one's cognitive structure (Brown, 2007:91). In BIHUTD, the thematic meaning of a unit can be regarded as the 'cognitive structure'; the items and sub-themes of discourses are new materials. But this 'cognitive structure' is not about given knowledge. Instead, it's the big ideas behind all the bits and pieces of experience. In recent years, the big ideas of a subject has become a buzz word, which refers to the more intrinsic and core concepts and ideas behind specific items. The meaningful relationship of knowledge can be uncovered by playing the leading role of the big ideas (Dun & He, 2019). Therefore, in BIHUTD, finding the thematic meaning of a unit and its connection with other items and sub-themes of discourses is crucial. And only through interrelation can the holistic structure be constructed and optimal function achieved (Wang et al., 2021). BIHUTD can help teachers develop a holistic thinking pattern, avoid fragmented instruction, and improve the practical effectiveness of classroom teaching (Hu & Chen, 2020). On the contrary, the fragmented instruction, like rote learning, without reference to the established cognitive structure, is just about the sum of isolated discourses without connection to the big theme. It can only lead to isolated and inefficient learning, which does no good to the building of a logical and hierarchical structure of knowledge.

### **2.2. Long-term Memory Achieved by Providing Various Meaningful Texts and Contexts Related to Both Sub-themes and Big theme**

The distinction between rote and meaningful learning may not at first appear to be important since in either case material can be learned (Brown, 2007:93). Neither does the distinction between holistic instruction and fragmented teaching since learners can understand and remember material in both cases. But when we consider the efficiency of the two kinds of instruction in terms of retention or long-term memory, their difference is stark. We tend to consider learning from the perspective of input alone, ignoring the uselessness of learned materials that are forgotten due to interfering factors (Brown, 2007:93). In fragmented instruction, learners can remember some isolated items like several lexical phrases in a single text while lack the ability to apply them in new situations. And they can decode the literal meaning of a passage quickly while ignoring more profound ideas and values. Undesirable retention is one of the major reasons. However, just as a meaningfully learned, subsumed item has far greater potential for retention (Brown, 2007:93), the BIHUTD can contribute

to the long-term memory. Some studies on the cause of language attrition have centered on the strengthened conditions of initial learning, on the kind of use that a second language has been put to, motivational factors contributing to forgetting and on cultural identity (Brown, 2007:95). By adopting BIHUTD in which all contents and activities are focused on the thematic meaning, teachers can guide students to deepen their understanding toward the big theme by understanding and remembering theme-related content, applying and analyzing, transferring and creating. In BIHUT, multiple comprehension and production activities are helpful for students to improve language competence; progressive cognitive activities serve to cultivate students' thinking capacity, learning ability and cultural awareness (Hu & Chen, 2020). And also, Ausubel's solution to this forgetting problem lies in the initial learning process: systematic, meaningful subsumption of material at the outset in order to enhance the retention process. He emphasizes the importance of meaning in language and of meaningful contexts for linguistic communication (Brown, 2007:96). Through BIHUTD, various meaningful texts and contexts related to sub-themes, big theme, students' practical life and cultural patterns will help to motivate students to obtain an optimal initial learning experience.

### **2.3. Cognitive Pruning Achieved by Incorporating Specific and Fragmented Items and Sub-themes in Each Text into the Generalized Thematic Meaning of a Whole Unit**

According to the subsumption theory, meaningfully learned content can also be forgotten. But in this case, forgetting is more intentional and organized, because it is a continuation of the process of subsumption by which one learns (Brown, 2007:94). It is more economical to bear less items in one's mind. In the early stages of subsumptive learning, learners need to input plenty of details and definitions. But moving forward, these specific items take up too much cognitive capacity of human's brain. Learners need to clear off or "pack" some unnecessary items so as to form a bigger and more inclusive concept. This second stage of subsumption can also be called cognitive pruning procedures (Brown, 2007:94). Pruning is the process of removing trivial details which are interacting with other information in the cognitive field all the time. In BIHUTD, the specific language points, topic and genre of a text can be generalized into the sub-theme of each teaching material. And moving forward, those sub-themes of each discourse which were the more inclusive concepts at last stage, will be pruned to create cognitive capacity for the bigger ideas, that is, the big theme of a certain unit. Also, both the specific items and inclusive concepts are designed and arranged attentively according to the law of cognitive process and students' proficiency. In so doing, unnecessary items won't steal the limited cognitive resources of students; the structural theme-related knowledge can be retained for a long time in students' cognitive structure; transition of knowledge to ability, ability to accomplishment will be successfully achieved.

### **3. The Practice Strategies of BIHUTD**

#### **3.1. Manufacture Meaningfulness by Setting Objectives, Organizing Content and Arranging Activities Based on the Big Theme**

Any kind of learning can be meaningful if learners are willing to relate new knowledge to what they already know. Our cognitive structure is one complicated but organized network where each item can be connected in a certain way. So building relationship between knowledge and daily experience or old knowledge is a good way to facilitate learning. We can see that association plays a prominent role in human learning. And it's also one of the underlying philosophies of BIHUTD. English teachers should set objectives, organize learning content and tasks focusing on the theme and context (Cheng,2018:1-7). The inquiry of thematic meaning subsuming every aspect is the core task of language learning(the Ministry of Education,2018). All the sub-themes and items within a unit are associated with the thematic meaning of this whole unit. And those fragmented content is also related to each other in a certain way. The whole unit is a network of attachments. Therefore, teachers should guide students to conduct meaningful learning by manufacturing meaningfulness in advance. The instruction should be designed to engage students in inquiry, promote transfer of learning, provide a conceptual framework for helping students make sense of discrete facts and skills, and uncover the big ideas of content. More specifically, in BIHUTD, teachers should set learning objectives according to unit theme and the academic achievements in Curriculum Standards. By focusing on the theme, the problem of 'what to learn' can be solved; and by referring to the academic achievements, the problem of 'to what degree one should learn' can be settled(Hu & Chen, 2020). After the objectives are set, unit learning activities need to be designed to achieve unit learning objectives which are divided into class objectives based on class content. Namely, the unit activities are arranged based on the class objectives to serve to reach unit objectives. Thus a meaningful relationship between whole and part is built to obtain the optimal learning effect. And to ensure the effectiveness of classroom activities and successful construction of thematic meaning, teachers need to formulate evaluation criterion to constantly observe, evaluate and adjust the whole process.

#### **3.2. Promote Optimal Pruning Procedures by Supplementing and Integrating Textbook Discourses with Different Perspectives to Construct Thematic Meaning**

Cognitive pruning can help to remove the bits and pieces of experience that actually built more general concepts. And the pruning stage of learning is actually not random but organized. So teachers can provide desirable conditions for students to achieve optimal cognitive pruning through BIHUTD. Focusing on the organization of teaching content, teachers need to supplement and integrate textbook discourses with different perspectives to help students to construct thematic meaning step by step. They can supplement and integrate teaching content through horizontal expanding and vertical deepening (Cao, 2022:10), reflecting the progressive constructing process of thematic meaning, promoting students' language acquisition and thinking

capacity. In the meantime, the thematic content of discourse is required to stimulate students' emotional experience and provocative thinking. And although the teaching material and content in textbook are arranged in a certain order, teachers are expected to choose more materials and reorganize the sequence of various discourses in a unit based on the thematic meaning, students' needs and the rule of cognition (Hu & Chen, 2020). In BIHUTD, the ideal sequence of discourses is arranged following the four steps: stimulate the established cognitive structure associated with the unit theme; construct new knowledge structure related to the unit theme; explore the thematic meaning; extend the thematic meaning (Cao,2022:12). In so doing, students can obtain rich experience and achieve optimal subsumptive forgetting in the learning process by applying old knowledge, exploring new knowledge, constructing and expanding thematic meaning from different perspectives in multiple delicately designed discourses.

#### **3.3. Facilitate Communicative Competence by Providing Production Activities to Deepen Thematic Meaning**

The theory of systematic forgetting has important implications for language learning and teaching. In the early stages of language learning, learning tools like paradigms or illustrations are often used to help students to better understand new knowledge. But they are just temporary entities which will be eliminated at later stages of higher-order language learning. Most teachers now encourage students to prune out auxiliary devices and focus more on the communicative use of language (Brown,2007:97). In BIHUTD, focusing on the design of learning activities, teachers should create comprehensive, relevant and practical activities centered on thematic meaning, dependent on discourses, integrating language and cultural knowledge, learning strategies to guide students to conduct inquiry-learning. According to systematic forgetting, at later stages of language learning, those interim content and activities will be pruned out of cognitive structure to better serve to the improvement of language automaticity. In BIHUTD, we can regard those fragmented items or preliminary activities as interim entities. Apart from activities of understanding and interpreting, applying and summarizing, teachers need to prepare various activities of transferring and creating where students can solve problems in new situations, produce personal values and ideas and enhance communicative competence. In the meantime, teachers must take students' individual differences into consideration, providing opportunities for them to choose and create. Also, teachers can provide diversified production forms for students, including individual or cooperative work. The production activities can help to improve students' communicative competence while deepening students' understanding of the thematic meaning. Through those delicately designed comprehension and production activities focusing on the thematic meaning, students can not only improve language competence, but also theme-related feelings and attitudes, as well as more long-lasting experience and profound wisdom to better understand the world in which they live.

### **4. Conclusion**

In BIHUTD, the thematic meaning plays a leading role in the fragmented content, sub-themes of different discourses

and various learning activities. Emphasis on the notion of association in BIHUTD is similar as the role of attachment or relatability in Ausubel's Subsumption Theory. Therefore, from the perspective of Meaningful Learning and Systematic Forgetting, more rational principles and practical approaches regarding BIHUTD were figured out. In so doing, teachers will better understand this 'hot concept' both theoretically and practically, contributing to the implementation of New Curriculum Standards and Curriculum Reform of Elementary Education. By sorting out the mechanism and practice strategies of BIHUTD from the perspective of Subsumption Theory, it can be found that the key notion of meaningful association is what leads the model of BIHUTD; and the issue of integration or reorganization is what guides teachers to practice BIHUTD all the time. This study is mainly about theoretical investigation and conceptual exploration into BIHUTD. Looking forward, future studies can work to look into more complete and concrete steps of how to conduct BIHUTD under the guidance of Ausubel's Subsumption Theory or Scaffolding Theory of Constructivism.

## References

- [1] Ausubel, D. Educational psychology: A cognitive view[M]. New York: Holt, Rinehart & Winston,1968.
- [2] H. Douglas Brown. Principles of language learning and teaching[M]. (5th ed.). White Plains, NY: Pearson Education, 2007.
- [3] Whiteley, M. Big ideas: A close look at the Australian history curriculum from a primary teacher's perspective [J]. *Agora*, 2012,47(1): 41-45.
- [4] Wiggins, G., & McTighe, J. Understanding by Design[M]. (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development,2005.
- [5] Cao Hongjuan. Theme-based Integration of High School English Multi-textbook Texts Teaching Practice[J]. *Foreign Language Teaching in Schools*,2022,45(07):9-14.
- [6] Cheng Xiaotang. The Concept and Practice of English Teaching Based on Thematic Meaning Inquiry [J]. *Foreign Language Teaching in Schools*, 2018(10): 1-7.
- [7] Cui Yunhuo. How to Carry out Large-unit Design Pointing to the Subject Core Literacy [J]. *Beijing Education (General Education Edition)*,2019(02):11-15.
- [8] Dun Jian, He Caixia. Big Concept-centered Unit Teaching Design[J]. *Basic Education Curriculum*,2019(18):6-11.
- [9] Hu Run, Chen Xinzhong. Strategies of Integrated Unit Teaching Design of English in Senior High[J]. *Foreign Language Teaching in Schools*,2020,43(09):6-10.
- [10] The Ministry of Education. New English Curriculum for Chinese Senior Middle Schools [M]. Beijing: People's Education Press, 2018.
- [11] Li Yuhang. Integrated Unit Teaching Design of Junior High Based on Thematic Meaning Inquiry [J]. *English Teaching and Research in Primary and Secondary Schools*, 2022 (06):38-41.
- [12] Wang Qiang, Sun Weiwei et al. Integrated Unit Teaching Design of English in Senior High Pointing to Deep Learning[J]. *Frontiers of Foreign Language Education Research*,2021, 4(01): 17-25+87-88.
- [13] Wang Qiang, Zhou Mi et al. Big Ideas-based Integrated Unit Teaching Design of English in Senior High[J]. *Foreign Language Teaching in Schools*,2021,44(01):1-7.