

A Study on the Application of Six Elements of Constructivist Learning Design in Undergraduate English Teaching

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Abstract: *Traditional English teaching has long adopted lecture-based teaching models, generally suffering from excessive knowledge indoctrination and insufficient focus on language application. Classroom activities are dominated by teachers' lectures, leaving students in a passive learning state with hardly any opportunity to take the leading role. This mechanical teaching mode ignores the communicative and practical nature of language learning. Students lack room for active thinking and inquiry, resulting in weak autonomous learning capabilities. They fail to convert textbook language knowledge into pragmatic competence applicable to real-life scenarios, which cannot meet the requirements of modern English-oriented talent cultivation. Against this backdrop, this paper takes the six elements of constructivist learning design as the core theoretical framework. Closely aligned with the communicative and practical attributes of English courses, it systematically explores concrete application paths and practical value of the six elements in English classroom teaching. Combined with teaching surveys and classroom case practices, this study sorts out actionable strategies tailored to real English teaching scenarios. It aims to optimize rigid traditional classroom modes, fully highlight students' principal position in learning, improve learners' comprehensive English proficiency and independent inquiry competence, and provide feasible practical references for the reform and innovation of undergraduate English teaching.*

Keywords: Constructivism, Six Elements of constructivism Learning Design, English Teaching, Classroom Application.

1. INTRODUCTION

1.1 Research Background and Significance

Against the backdrop of higher education reform and competency-oriented English education, undergraduate English teaching prioritizes practical communicative competence and abandons exam-oriented rote memorization. Nevertheless, most current English classrooms still rely on one-way teacher lecturing. Authentic contexts, in-depth questioning and effective interaction are insufficient; group collaboration and scaffolded teaching are poorly implemented. Students excel at doing exercises yet demonstrate weak language output, which fails to satisfy the training goals of application-oriented talents. The concepts of situated learning, collaboration and active knowledge construction proposed by constructivism align well with the trend of English teaching reform. Based on the six elements of constructivist learning design, this paper explores implementation approaches through literature review, classroom observation and case analysis. Targeting prominent teaching drawbacks, it proposes operable strategies suitable for undergraduate classrooms and builds a systematic constructivist teaching framework. The research emphasizes student-centered learning, enhances students' English application skills and independent inquiry abilities, and offers references for college English teaching reform.

1.2 Literature Review

Constructivism, also categorized under structuralism, is a vital branch of cognitive psychology. Integrated with behaviorism, quality-oriented education and educational psychology, it has evolved as an extension of cognitivism and become one of the most influential modern teaching theories worldwide. Tracing its origin, constructivism stems from theories put forward by Swiss educator Jean Piaget, whose propositions ushered in a new era for cognitive education research (Chen, 2007). Later, Lev Vygotsky, David Ausubel, Jerome Bruner and other scholars enriched and refined constructivism by investigating the nature and developmental conditions of cognitive structures, the impact of social environment on psychological development, and the role of individual initiative in cognitive construction (Fan & Zhang, 2003). Constructivism defines knowledge as interpretations or hypotheses of the objective world, laying solid theoretical groundwork for its adoption in foreign language teaching at universities (Credler, 1997).

2. CORE THEORIES AND ADAPTATION ANALYSIS FOR ENGLISH TEACHING

2.1 Core Connotations of Constructivist Learning Theory

Constructivism is a major branch of cognitive psychology formally conceptualized by Swiss philosopher and psychologist Jean Piaget. In his theory of child development, Piaget argued that children gradually construct knowledge about the external world through interaction with surroundings, thereby developing their cognitive structures. Building on Piaget's research, Bruner's cognitive structure learning theory, Ausubel's cognitive assimilation theory, and M. C. Wittrock's generative learning theory further elaborate cognitive processing, development of cognitive structures and ways to stimulate learner initiative. Social constructivism, rooted in Vygotsky's sociocultural theory, stresses the influence of socio-historical context, activities and social communication on human cognitive development.

In short, constructivist pedagogy holds that knowledge is not acquired through teachers' one-way lecturing. Instead, learners actively construct meaningful understanding with assistance from teachers and peers, supported by various learning resources within specific sociocultural contexts. Learning relies on contextual experience and interpersonal communication, making situation, collaboration, conversation and meaning construction the four foundational elements of constructivist learning environments. This chapter systematically defines six key elements (situation, questioning, bridging, collaboration, exhibition and reflection) and elaborates their educational functions and progressive logical relationships.

2.2 Core Viewpoints of Constructivist Learning Theory

- 1) Student-centered learning: Students dominate the learning process by conducting cognitive thinking and independent knowledge construction. Knowledge comprehension hinges on learners' active integration of new content with prior experience. Teachers act as facilitators to guide and support students' knowledge construction.
- 2) Emphasis on authentic learning contexts: Learning is most effective in real or simulated life scenarios. Learners update cognition and acquire new knowledge by engaging in communication and accessing learning materials within sociocultural settings.
- 3) Collaboration as the core of construction: Communication and cooperation between teachers and students as well as among peers serve as prerequisites for successful meaning construction.
- 4) Optimized learning conditions: Teachers gather diverse learning materials and tools to facilitate independent inquiry and active knowledge construction.

2.3 Six Elements of Constructivist Learning Design

George W. Gagnon and Michelle Collay (2001) systematized constructivist theories and proposed six core elements of Constructivist Learning Design (CLD): developing situations, raising questions, building bridges, organizing groupings, arranging exhibits and inviting reflections. Centered on learners, the six elements form a closed-loop learning system.

- 1) Developing Situations: Teachers play short videos about college students' backpack travels and overseas youth study tours with multimedia tools, supplemented by real photos of youth hostels, student discounted airfares and overseas markets. Visual aids include the instructor's travel photos, cultural souvenirs from various countries and simple travel journals. Teachers initiate class interaction by asking students about their travel plans and dream destinations, reserving one minute for free sharing. Such situated learning transforms abstract textual ideas into tangible personal experience, helping students perceive young people's advantages in time, energy and travel costs. It lays emotional and cognitive groundwork for subsequent reading and promotes knowledge transfer from classroom learning to real-life application.
- 2) Raising Questions: Question-oriented learning represents mainstream constructivist pedagogy. Questions trigger thinking and drive in-depth inquiry. Teachers should design layered, expandable exploratory questions based on teaching materials to guide multi-dimensional critical thinking, enabling students to complete a full cycle of questioning, reasoning and problem-solving while fostering practical capabilities and creative thinking. High-quality open-ended questions with sufficient room for exploration sustain students' curiosity and drive active

knowledge absorption.

3) Building Bridges: This element connects learners' prior cognition with new knowledge, serving as a key practice pathway for constructivist teaching. Conventional teaching often ignores students' existing knowledge base, while constructivism requires teachers to evaluate learners' cognitive level before class to realize differentiated instruction. Reviewing prior knowledge activates existing cognitive structures before new lessons, consistent with Piaget's cognitive disequilibrium theory and Vygotsky's scaffolding theory. Prior knowledge functions as a transitional scaffold to lower learning barriers.

4) Organizing Groupings: Cooperative group work is indispensable for constructivist lesson planning. Teachers divide students into groups according to teaching objectives, adopting flexible modes including whole-class discussion and small-group research. Grouping considers students' academic proficiency, personality, performance and gender to ensure complementary strengths, balanced group competence and healthy intergroup competition. Group discussion and opinion negotiation remedy individual cognitive limitations, integrating scattered personal viewpoints into collective understanding and deepening meaning construction. Interpersonal communication sparks diverse ideas and enables shared learning experience.

5) Arranging Exhibits: Groups demonstrate research ideas and learning outcomes in diverse forms. Classrooms prioritize optimized learning environments to guarantee adequate time for presentation and discussion. Valid exhibition forms include oral reports, role-plays, PPT presentations and audio displays. Audience groups may raise questions and debate freely during presentations. Teachers assess learning mastery through exhibitions and flexibly adjust follow-up teaching arrangements.

6) Inviting Reflections: Reviewing the entire learning process improves academic performance and constitutes a critical approach to cultivating metacognition. Teachers guide students to sort chapter knowledge, connect old and new content, build personalized knowledge frameworks and adjust learning strategies. Comprehensive reflection enhances metacognition, taps learning potential, boosts learning initiative and improves classroom efficiency.

2.4 Adaptability Between Six Elements and English Teaching

English features both instrumental and humanistic values, highlighting communicative competence and cross-cultural exchange, which highly aligns with the six elements of CLD: situation development, questioning, bridging, grouping, exhibiting and reflecting. Authentic contexts facilitate internalization of linguistic knowledge; hierarchical questions drive in-depth linguistic thinking; connection with prior knowledge reduces learning difficulty; group collaboration provides abundant oral communication practice; diversified exhibitions create language output opportunities and support teachers' progress monitoring; learning reflection optimizes learning strategies and develops autonomous learning capacity. Running through language input, internalization, output and review, the six elements address the overemphasis on memorization and neglect of application in traditional English teaching, matching the requirements of core competency cultivation and application-oriented foreign language talent training for undergraduates.

3. CURRENT DEFICIENCIES OF UNDERGRADUATE ENGLISH TEACHING ANALYZED VIA CONSTRUCTIVIST SIX ELEMENTS

From the perspective of CLD six elements, undergraduate English classrooms bear obvious drawbacks: lack of authentic communicative contexts disconnecting knowledge from practical use; superficial closed-ended questions without layered critical design, with teachers offering direct answers that fail to inspire deep thinking; absence of cognitive scaffolding linking prior and new knowledge leading to passive rote memorization; unscientific grouping making group collaboration superficial; more focus on language input than output with monotonous exhibitions and insufficient peer evaluation; inadequate post-class reflection hindering metacognitive development. Traditional classrooms deviate from active knowledge construction, resulting in students' strong exam-taking ability yet poor practical language competence, failing to meet standards for application-oriented foreign language talents.

4. TEACHING CASE OF CONSTRUCTIVIST LEARNING DESIGN

This paper takes the lesson "Why We Should Travel Young" from iEnglish: An Integrated Course (Basic Volume

1) (chief editor Wang Shouren, Foreign Language Teaching and Research Press) to demonstrate the application of CLD six elements in English teaching.

4.1 Developing Situations

Teachers play short videos about college students' backpack travels and overseas youth study tours with multimedia tools, supplemented by real photos of youth hostels, student discounted airfares and overseas markets. Visual aids include the instructor's travel photos, cultural souvenirs from various countries and simple travel journals. Teachers initiate class interaction by asking students about their travel plans and dream destinations, reserving one minute for free sharing. Such situated learning transforms abstract textual ideas into tangible personal experience, helping students perceive young people's advantages in time, energy and travel costs. It lays emotional and cognitive groundwork for subsequent reading and promotes knowledge transfer from classroom learning to real-life application.

4.2 Raising Questions

Three tiers of progressive questions are designed to advance textual exploration. Low-level basic questions cover benefits of youth travel mentioned in the text and the connotation of "comfort zone"; intermediate exploratory questions discuss how travel shapes young people's cultural awareness and difficulties and solutions for overseas student travel; high-level open-ended questions guide students to dialectically analyze whether youth is the optimal travel period and explore the value of domestic college travel combined with traditional Chinese thoughts. Students independently scan the text and sort out answers before class discussion. Teachers encourage self-initiated questions rather than providing standard answers directly, guiding students to find evidence in the text and fostering critical thinking.

4.3 Building Bridges

Teachers construct cognitive scaffolds. Before class, they review senior high school vocabulary related to travel (journey, trip, tour, adventure) and basic sentence patterns describing travel, activating students' personal travel experience. Cognitive conflict is created by contrasting students' stereotype that "travel is merely entertainment" with the textual viewpoint that "travel serves educational growth". Bacon's quote "Travel in the younger sort is a part of education" builds cross-cultural links, helping students grasp the central theme. Anchored in prior knowledge, the scaffold facilitates integration of old and new cognition and active acceptance of textual viewpoints, eliminating passive knowledge reception.

4.4 Organizing Groupings

Students are divided into groups of four to five with balanced English proficiency and personality traits to ensure intragroup complementarity and healthy intergroup competition. Two collaborative tasks are assigned: drawing mind maps of textual subarguments or conducting English debates on pros and cons of college travel. All members participate in discussion, note-taking and viewpoint integration. Teachers patrol the classroom and offer timely guidance. Communication between teachers and peers breaks individual reading limitations and enables in-depth meaning construction through social interaction.

4.5 Arranging Exhibits

Groups present outcomes via mind map PPT reports, short English debates or cross-border travel role-plays. Audience students may raise questions and express opposing opinions during presentations, with presenting groups responding collectively. Teachers document linguistic weaknesses and textual comprehension errors throughout presentations and summarize common problems after all groups finish. Rich output opportunities transform students from passive readers into active interpreters of constructed knowledge.

4.6 Inviting Reflections

Layered reflection activities are arranged at the end of class. Students first fill in reflection checklists to sort vocabulary, core ideas and learning difficulties. Next, groups conduct peer evaluation of presentation strengths and weaknesses. Teachers summarize key knowledge points and review cognitive changes throughout the lesson. After class, the writing task *My Travel Plan in College* extends reflective learning. The complete review process

integrates new and prior knowledge, supports personalized learning strategies, develops metacognition and cultivates long-term autonomous learning habits with regular self-assessment.

5. EFFECT ANALYSIS OF TEACHING PRACTICE

The CLD-based lesson design for “Why We Should Travel Young” achieves remarkable improvements compared with traditional teaching. Audio-visual aids build authentic travel contexts, boost student engagement and realize contextual knowledge transfer. Layered open questions prompt evidence-based independent reasoning and strengthen critical reading ability. Pre-class cognitive scaffolding activates prior knowledge and lowers comprehension barriers with cultural materials. Heterogeneous grouping eliminates superficial group learning via English seminars. Diversified presentations paired with peer evaluation increase oral output and support targeted teacher intervention. In-class and after-class reflections cultivate metacognition and autonomous learning. Covering all learning phases, the six elements uphold student-centered education and foster linguistic competence, critical thinking and cross-cultural literacy. They remedy the imbalance between memorization and application in conventional English teaching and fit the cultivation goals of application-oriented foreign language talents.

6. CONCLUSIONS AND TEACHING SUGGESTIONS

The six elements of constructivist learning design effectively mitigate one-way lecturing and memorization-oriented learning in undergraduate English education. Running through all teaching procedures, situation, questioning, bridging, grouping, exhibiting and reflecting prioritize student agency. The framework consolidates linguistic foundations while improving critical thinking, oral output and autonomous learning, fully matching university goals of training application-oriented English talents.

Specific teaching recommendations are listed as follows: teachers design authentic linguistic contexts aligned with unit themes and develop layered exploratory questions; activate prior knowledge to build cognitive scaffolds before class and adopt heterogeneous grouping for in-depth collaboration; diversify presentation formats to expand oral output channels; design self-evaluation and peer review sessions for full-process reflection, guiding students to complete active knowledge construction independently.

REFERENCES

- [1] Ausubel D P. Educational Psychology: A Cognitive View[M]. New York: Holt, Rinehart & Winston, 1968.
- [2] Credler M E. Learning and Instruction[M]. New Jersey: Prentice-Hall, Inc., 1997.
- [3] Feng Y F. Application of six elements of constructivist learning design in English teaching[J]. Foreign Languages and Their Teaching, 2006(6):33-36.
- [4] Fan L, Zhang Q Y. The compatibility between constructivist teaching theory and English teaching reform[J]. Foreign Languages and Their Teaching, 2003(4):28-32.
- [5] Gagnon G W, Collay M. Designing for Learning: Six Elements in Constructivist Classrooms[M]. California: Corwin Press, Inc., 2001.
- [6] George W. Gagnon & Michelle Collay. Designing for Learning: Six Elements in Constructivist Classrooms [M]. California: Corwin Press, INC., 2001.
- [7] Vygotsky L S. Mind in Society[M]. Cambridge, MA: Harvard University Press, 1978.
- [8] Vygotsky L S. Thought and Language[M]. Cambridge, MA: MIT Press, 1986.
- [9] Wang J P. A study on the application of constructivism instruction models to the English teaching in high school[D]. Guangxi: Guangxi Normal University, 2005.