

Comprehensive College English

综合大学英语

秦丹 主编

6

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综合大学英语

Comprehensive College English

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综合大学英语

(英语专业教材)

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前 言

《综合大学英语》(Comprehensive College English)是为高校英语专业编写的一套精读课系列教材,共分八册,分别用于英语专业一至四年级的八个学期。

本教程编写的原则和指导思想是我国新修订的《高等学校英语专业英语教学大纲》,在教材的总体设计与编写体例上力求按阶段(即:基础阶段 1-4 册;高年级阶段 5-8 册)实现新大纲规定的加强学生语言基本功和综合交际能力的目的要求。基础阶段 1-4 册教材系统传授语言基础知识,继承以往精读课教材的优良传统,对学生进行全面的、严格的基本技能训练。在注意增强学生实际运用语言能力的同时,注意培养学生良好的学习习惯和学习方法,培养他们的逻辑思维能力和独立工作能力,丰富他们的文化知识,增强对文化差异的敏感性,为高年级的学习打下较扎实的基础。高年级阶段的 5-8 册则继续强化基本功训练,进一步扩大知识面,把重点放在培养学生的语言综合技能、提高人文知识修养与语言交际能力上,使学生逐步成长为能适应新世纪要求的合格的外语专门人才。但愿通过我们大家不断的共同努力,这套系列教程能在这方面作出一点应有的贡献。

本教程由四川大学、四川师范大学、电子科技大学、西南交通大学、西南财经大学和华西医科大学等校外语院系通力合作,历时四年编成初稿,其中第一册、第二册、第三册和第五册的初稿本曾先后在四川大学、四川师范大学、华西医科大学和电子科技大学的英语专业本科班进行过多次试用,受到师生们的广泛好评。尽管如此,由于编者能力有限,这套系列教程一定存在不少缺点和谬误,恳请专家和各位师友、同学不吝指正。

在本教程的编写过程中,自始至终都得到外研社的领导、责任编辑以及外研社西南信息中心各位师友的大力帮助和悉心指导,值此试用本出版印行之际,谨向他们表示衷心的感谢。

编写说明

本册根据国家教育部新编《高等学校英语专业英语教学大纲》的要求而编写,适用于已掌握英语基础知识的高年级学生。

以拓宽人文科学知识和科技知识面为指导思想,本册课文的内容涉及到语言、文化、教育、心理学、经济、计算机、医学、环境保护、交际方式、思维方式、科学方法等方面。课文全部选自原文,部分地方有删改。大部分文章为 90 年代的作品,一半的课文选自 1997 年以后发表的文章或出版物,反映了现代意识和思想观点;也有几篇名人之作。每个单元含正课文和补充阅读两个部分,两个部分的内容有一定的相关性,补充阅读部分可能是正课文的补充,可能是从另一角度认识同一问题,也可能仅仅在同一个大的范围内。

“注重培养获取知识的能力,独立思考的能力,较强的思辩能力和创新的能力”是本册编写的另一指导思想。为此,本册借用了美国教育学家 Benjamin Bloom 关于认知过程的分类。Bloom 把认知过程分为 knowledge, comprehension, application, analysis, synthesis, evaluation 六个步骤。我们将这六个步骤作为编写练习的主线,引导学生把学习的重点放在对课文内容的理解、分析、运用、质疑及辨别上,训练学生进行有意识、有步骤的思考,以期达到辨别性消化的结果,从而提高思想深度。同时,也通过用英语进行思维和表述、答辩更复杂思想的过程,使学生的语言能力和表达思想的能力上一个台阶。

从这一主线出发,本册练习侧重于讨论、研究式的方式。讨论分大组讨论和小组讨论、个人有准备发言和即兴发言。同时导入互相学习、互相启发、互相支持的互助学习方式(cooperative learning),在学习新知的同时培养合作能力这一素质。研究性体现在写作练习中。写作练习的题目侧重阅读心得(reflection)和评论(comment),要求学生与课文进行交流。写作题目有时在正课文的练习之中,有的在阅读的练习之中。Rhetoric Studies 这一项练习涉及了部分写作技巧。另设英译汉、汉译英以配合翻译课,加强对语言能力的训练。

课文长短和难易程度不完全相同。有些课文可能用一周,较长较难的课文可能需二至三周。课文与练习都留有一定的余地,以便教师根据学生的具体情况选择使用。

本册编写小组由四川大学外国语学院华西校区四位教师组成,具体分工

如下：秦丹副教授主持编写，确定编写原则和样式，拟定编写提纲和样课，负责全书统稿及修改，并承担了第一、二、八、九、十二课的编写工作；邓洪副教授执笔第三、五、十一课，并在编写本册的前期准备中做了大量工作；第四、十课由雷虹副教授执笔；第六、七课由史永平副教授执笔。Patrick Wood 先生做了全书的校对工作。

编者水平有限，书中一定存在不少缺点错误，敬请使用者提出批评与建议。

编 者

2002 年 10 月

Acknowledgments

We are extremely grateful to the authors and publishing houses for all the articles we have chosen as the texts for this textbook. We apologize for the insufficient information in some cases due to our lack of resources. While we intend to show every respect for intellectual property rights, we hope our pleading for the permission to use the related articles for teaching purposes will receive kind and generous considerations.

Unit One

“Sponge and Panning for Gold: Alternative Thinking Style” by M. Neil Browne & Stuart M. Keeley from *Asking the Right Questions: A Guide to Critical Thinking*.

“Critical Thinking” by Bill Huitt from <http://www.valdosta.peachnet.edu/whuitt/>.

“An Example of Panning-for-Gold Approach” by John Kolstoe from *Developing Genus*.

Unit Two

“How the Heavens Go” by an unknown author from *Newsweek*, July 27, 1998.

“Science and Society: Ways of Understanding Our World” by Daniel D. Chiras from *Environmental Science*.

“On Sustainable Development” by Premier Zhu Rongji from his speech at “Round Table of World Summit on Sustainable Development” on 3 September 2002.

Unit Three

“The Importance of Communication” by James H. Donnelly Jr. et al. from *Fundamentals of Management*.

“Why Communications Break Down” by James H. Donnelly Jr. et al. From *Fundamentals of Management*.

“Improving Communication in Organization” by James H. Donnelly Jr. et al. from *Fundamentals of Management*.

Unit Four

“Curtains for Dr. Death” by Julie Grace from *Time*, April 5, 1999.

“Medicine’s Dilemma at the End of the Twentieth Century” by Steve Conner from *The World in 2000*.

“The Genome Is Published” by Steve Conner from *The World in 2000*:

Unit Five

“Face to Face with Telemedicine” by Annette Wilkerson Porter from “Medicine in the Information Age” in *Visions*, spring 2000.

“Medicine in the Information Age” by Annette Wilkerson Porter from *Visions*, spring 2000.

“Computerized Patient Record: Transforming Communication” with unknown source.

Unit Six

“Edward T. Hall’s Model” from www.yahoo.com, March 11, 2002.

“The Paradox of Culture” by Edward T. Hall from *Beyond Culture*.

“Asian Identity Crisis” by Yahlin Chang from *Newsweek*, July 6, 1998.

Unit Seven

“Innovation” by Nina Brown from webmaster@asiss.org, March 11, 2002.

“The Paradox of Culture (*continued*)” by Edward T. Hall from *Beyond Culture*.

“East vs. West” by Dick Wilson from *Far Eastern Economic Review*, Sept. 1998.

Unit Eight

“A Scientific Definition of Personality” by Lawrence A. Pervin from *Personality Theory and Research*.

“Social Aspects of Mental Life” by Alfred Adler from *Understanding Human Nature*, an English translation of Alfred Adler by Colin Brett.

“How Do We Become Who We Are?” by Alfred Adler from *Understanding Human Nature*, an English translation of Alfred Adler by Colin Brett.

Unit Nine

“He Keeps Us humble” by Norman Doidge from *English language Learning*.

“Poetry and Advertisement” by S. I. Hayakawa & Alan R. Hayakawa from

Language through Thought and Action.

"Mr. Perkins of Portland" by Ellis Parker Butler from *Selected English Short Stories*.

Unit Ten

"Billion-Dollar Babies" by James Fallows from *New York Review of Books*, Dec. 16, 1999.

"Lost in Cyberspace" by an unknown author from *The Economist*, Dec. 18th 1999.

"Beyond Gutenberg" by Bill Gates from *The World in 2000*.

Unit Eleven

"Globalization and Standards for Medical Education" by Andrzej J. Wojtczak and M. Roy Schwarz.

"Minimum Essential Requirements and Standards in Medical Education" by Andrzej J. Wojtczak and M. Roy Schwarz.

"Medical Standards in Use: The World's Overview" by Andrzej J. Wojtczak and M. Roy Schwarz.

Unit Twelve

"My Pedagogic Creed: Article I — What Education Is" by John P. Miller & Wayne Seller from *Curriculum Perspective and Practice*.

"Education as Growth" by John Dewey from *Democracy and Education*.

"Democratizing Our Concept of Human Intelligence" by Wendy M. Williams from *The Education Digest*.

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Unit One

Ways of Thinking



Introductory Reading

The Sponge and Panning for Gold: Alternative Thinking Styles

M. Neil Brown & Stuart M. Keeley

- 1 One approach to thinking is similar to the way in which a sponge reacts to water: by absorbing. This commonly used approach has some clear advantages.
 - 2 First, the more information you absorb about the world, the more capable you are of understanding its complexities. Knowledge you have acquired provides a foundation for more complicated thinking later. For instance, it would be very difficult to judge the value of a sociological theory before you had absorbed a core of knowledge about sociology.
 - 3 A second advantage of the sponge approach is that it is relatively passive. Rather than requiring strenuous mental effort, it tends to be rather quick and easy, especially when the material is presented in a clear and interesting fashion. The primary mental effort involves concentration and memory.
 - 4 While absorbing information provides a productive start toward becoming a thoughtful person, the sponge approach has a serious disadvantage: It provides no method for deciding which information and opinions to believe and which to reject. If a reader relied on the sponge approach all the time, she would believe whatever she read last.
 - 5 We think you would rather choose for yourself what to absorb and what to ignore. To make this choice, you must read with a special attitude: a question-asking attitude. Such a thinking style requires active participation. The writer is trying to speak to you, and you should try to talk back to him, even though he is not present.
 - 6 We call this interactive approach the panning-for-gold style of thinking. Gold is
-

a soft, bright yellow metal that has been highly valued since prehistoric times. It is found in most parts of the world, but almost always in low concentrations. As a result, finding it is a challenging and difficult task.

7 The process of panning for gold provides a model for active readers and listeners as they try to determine the worth of what they read and hear. The task is challenging and sometimes tedious, but the reward can be tremendous. To distinguish the gold from the gravel in a conversation requires you to ask frequent questions and to reflect about the answers.

8 The sponge approach emphasizes knowledge acquisition; the panning-for-gold approach stresses active interaction with knowledge as it is being acquired. Thus, the two approaches can complement each other. To pan for intellectual gold, there must be something in your pan to evaluate. To evaluate arguments we must possess knowledge.

9 Let us more closely examine how the two approaches lead to different behavior. What does the individual who takes the sponge approach do when he reads material? He reads sentences carefully, trying to remember as much as he can. He may underline or highlight key words and sentences. He may take notes summarizing the major topics and major points. He checks his underlining or notes to be sure that he is not forgetting anything important. His mission is to find and understand what the author has to say. He memorizes the reasoning but doesn't evaluate it.

10 What does the reader who takes the panning-for-gold approach do? Like the person using the sponge approach, he approaches his reading with the hope that he will acquire new knowledge. Then the similarity ends. The panning-for-gold approach required that the reader ask himself a number of questions to clarify logical steps in the material and to help identify important omissions. The reader who uses the panning-for-gold approach frequently questions why the author makes various claims. He writes notes to himself in the margins indicating problems with the reasoning. He continually interacts with the material. His intent is to critically evaluate the material and formulate personal conclusions based on the evaluation.

Questions for Discussion

1. Are the two types of thinking styles also two types of learning styles?

2. Find practical examples for these two thinking or learning styles.
3. Compare the strength and the weakness of these two types of thinking and find their relations.

Text

Critical Thinking —An Overview of the Cognitive System

Bill Huitt

1 The movement to the information age has focused attention on good thinking as an important element of the life success (Huitt, 1993; Thomas & Smoot, 1994). These changing conditions require new outcomes, such as critical thinking, to be included as a focus of schooling. Old standards of simply being able to score well on a standardized test of basic skills, though still appropriate, cannot be the sole means by which we judge the academic success of failure of our students.

2 The purpose of this overview is to review what we know about critical thinking, how it might be differentiated from creative thinking, and to suggest future research and implementation activities.

Definition Has Changed Over the Past Decade

3 The definition of critical thinking has changed somewhat over the past decade. Originally the dominion of cognitive psychologists and philosophers, behaviorally-oriented psychologists and content specialists have recently joined the discussion. The following are some examples of attempts to define critical thinking:

- ... the ability to analyze facts, generate and organize ideas, defend opinions, make comparisons, draw inferences, evaluate arguments and solve problems (Chance, 1986, p.6);
- ... a way of reasoning that demands adequate support for one's beliefs and an unwillingness to be persuaded unless support is forthcoming (Tang, 1989, p. 6);
- ... involving analytical thinking for the purpose of evaluating what is read

(Hickey, 1990, p.175);

- ... a conscious and deliberate process which is used to interpret or evaluate information and experiences with a set of reflective attitudes and abilities that guide thoughtful beliefs and actions (Mertes, 1991, p.24);
- ... active, systematic process of understanding and evaluating arguments. An argument provides an assertion about the properties of some object or the relationship between two or more objects and evidence to support or refute the assertion. Critical thinkers acknowledge that there is no single correct way to understand and evaluate arguments and that all attempts are not necessarily successful (Mayer & Goodchild, 1990, p.4);
- ... the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action (Scriven & Paul, 1992);
- ... reasonable reflective thinking focused on deciding what to believe or do (Ennis, 1992).

Contributions to Our Thinking About Critical Thinking

4 Each of the separate groups has made significant contributions to our understanding of critical thinking. Contributors from the area of cognitive psychology (such as Paul Chance and Richard Mayer) delineate the set of operations and procedures involved in critical thinking. They work to establish the differences between critical thinking and other important aspects of thinking such as creative thinking.

5 Contributors from the area of philosophy (such as Richard Paul) remind us that critical thinking is a process of thinking to a standard. Simply being involved in the process of critical thinking is not enough; it must be done well and should guide the establishment of our beliefs and impact our behavior or action.

6 Contributors from the area of behavioral psychology help to establish the operational definitions associated with critical thinking. They work to define the subtasks associated with final outcomes and the methodologies teachers can use to shape initial behaviors towards the final outcomes. They also demonstrate how educators can establish the proper contingencies to change behavior.

7 Content specialists (such as Hickey and Mertes) demonstrate how critical thinking can be taught in different content areas such as reading, literature, social studies, mathematics, and science. This is an especially important contribution because it appears that critical thinking is best developed as students grapple with specific content rather exclusively as a separate set of skills.

How Is Critical Thinking Related to Bloom et al. 's *Taxonomy of the Cognitive Domain*?

8 Bloom and his colleagues (1956) produced one of the most often cited documents in establishing educational outcomes: the *Taxonomy of the Cognitive Domain*. They proposed that knowing is actually composed of six successive levels arranged in a hierarchy: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. Research over the past 40 years has generally confirmed that the first four levels are indeed a true hierarchy. That is, knowing at the knowledge level is easier than, and subsumed under, the level of comprehension and so forth up to the level of analysis. However, research is mixed on the relationship of synthesis and evaluation; it is possible that these two are reversed or they could be two separate, though equally difficult, activities (Seddon, 1978).

9 Synthesis and evaluation are two types of thinking that have much in common (the first four levels of Bloom's taxonomy), but are quite different in purpose. Evaluation (which might be considered equivalent to critical thinking) requires an individual to look at parts and relationships (analysis) and then to put these together in a new and original way.

10 There is some evidence to suggest that this equivalent-but-different relationship between critical/evaluative and creative/synthesis thinking is appropriate. Huitt (1992) classified techniques used in problem-solving and decision-making into two groups roughly corresponding to the critical/creative dichotomy. One set of techniques tended to be more linear and serial, more structured, more rational and analytical, and more goal-oriented; these techniques are often taught as part of critical thinking exercises. The second set of techniques tended to be more holistic and parallel, more emotional and intuitive, more creative, more visual, and more tactual/kinesthetic; these techniques are more often taught as part of creative thinking exercises. This distinction also corresponds to what is sometimes referred to as left brain thinking (analytical, serial, logical,

objective) as compared to right brain thinking (global, parallel, emotional, subjective) (Springer & Deutsch, 1993).

11 One problem with the definitions provided above (which is common to most definitions from philosophers such as Paul and Scriven), is that of labeling “good” thinking as critical thinking. This implies that creative thinking is a component of critical thinking rather than a separate, though related, thinking process with its own standards of excellence. To classify all “good” thinking as critical thinking is to expand the definition beyond its usefulness and obfuscates the intended concept. It also has the danger of overselling the concept and having both educators and the general public reject the benefits of focusing on critical thinking. We need to recognize that “good” thinking requires both critical and creative thinking. For example, Duemler and Mayer (1988) found that when students used techniques associated with reason and logic as well as creativity and divergence, they were more successful in problem solving.

12 A second problem common to several definitions is that of confusing attitudes and dispositions towards thinking with the actual thinking process (i.e., emotion versus cognition; feeling versus reasoning). For example, Tama (1989) includes an “an unwillingness to be persuaded unless [adequate] support is forthcoming” (p. 64) while Mertes (1991) includes using “reflective attitudes” in his. This makes it very difficult to separate out the cognitive processing skills from the attitudes or dispositions to use those skills. It is likely that two separate educational methods are necessary to impact these very different desired outcomes.

Proposed Definition

13 I believe Ennis' (1992) definition comes closest to the mark of a useful generic definition for critical thinking. I offer yet another definition only to more closely align the concept to the evaluation level as defined by Bloom et al. (1956) and to include some of the vocabulary of other investigators. The following is my proposed definition of critical thinking:

- Critical thinking is the disciplined mental activity of evaluating arguments or propositions and making judgements that can guide the development of beliefs and taking action.