



Graduate (ME) English for the 21st Century

总主编 王同顺 副总主编 徐万林 郭继荣

21世纪

工程硕士研究生英语

泛读教程

EXTENSIVE READING

本册主编 徐万林

本册副主编 王 松



西安交通大学出版社
XI'AN JIAOTONG UNIVERSITY PRESS



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编 者 (按姓氏笔划排序)

齐秀坤 刘秀杰 何淼波 顾晓乐 常 梅



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· 西 安 ·

内 容 提 要

本教程是“21 世纪工程硕士研究生英语”系列教材的主干教材之一。本教程题材广泛,时代感强;内容实用,针对性强;语言规范,可读性强;练习形式多样,量度合理。课文均选自近年来英、美国家原文期刊和杂志上刊登的文章。本教程注重高质量的语言输入,既适于课堂练习又方便学生自主学习。本教程可适用于工程硕士研究生,还可适用于其他专业学位研究生,以及具有一定英语基础的自学读者。

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编委会

项目策划

谭小艺 陈 丽

总主编

王同顺

副总主编

徐万林 郭继荣

编 委

(按姓氏笔画排列)

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总序

在“科教兴国”的基本方针指引下,我国的研究生教育有了蓬勃的发展,同时,我国的研究生专业学位教育也在迅猛发展,为了更好地满足专业学位英语课程教学的需要,提高专业学位研究生的英语运用能力,我们编写了“21 世纪工程硕士研究生英语”[Graduate (ME) English for the 21st Century]系列教材。

“21 世纪工程硕士研究生英语”系列教材是以《全国工程硕士专业学位研究生英语教学大纲》为依据,根据我国工程硕士研究生英语教学的实际情况,以及国家对 21 世纪高级工程技术人才的外语要求而编写的。

“21 世纪工程硕士研究生英语”系列教材是一套系统的、全面体现 21 世纪对高层次工程技术人员培养需求的教材。它从工程硕士研究生的实际英语水平出发,注重培养学生的扎实语言技能,全面提高学生的英语综合应用能力。

“21 世纪工程硕士研究生英语”系列教材包括:《综合教程》(上、下册)、《〈综合教程〉教师参考》、《泛读教程》、《听说教程》、《〈综合教程〉练习册》及《词汇强化训练》。

《综合教程》每册 8 个单元,每个单元由课文、词汇练习、翻译、写作和口语活动、定时阅读和泛读多种练习和活动组成,围绕课文题材和内容,综合培养听、说、读、写、译技能。

《泛读教程》旨在使学生通过大量阅读英语文章来扩充词汇量,提高阅读技能,以及熟练获取信息的能力和独立阅读原著的能力。

《听说教程》旨在通过听说能力的强化训练,着重提高学生的听力和口头表达能力,以适应在各种场合用英语进行交际的需要。

《〈综合教程〉练习册》主要用于学生自学,帮助学生消化、使用 and 掌握《综合教程》的教学内容。

《词汇强化训练》主要通过各种练习手段,帮助学生掌握和扩充《工程硕士专业学位英语教学大纲》规定的词汇。

总序

“21 世纪工程硕士研究生英语”系列教材既可用于课堂教学,也可供工程硕士研究生自学使用,还可以供非英语专业研究生课程班和其它专业学位硕士研究生使用,以及具有或接近于大学英语四级水平的读者自学使用。

“21 世纪工程硕士研究生英语”由上海交通大学、西安交通大学和哈尔滨工业大学的具有长期研究生教学经验的骨干教师分工编写而成。西安交通大学出版社对本系列教材的编写和出版给予了鼎力支持。在本系列教材的编写过程中也得到了上述三所大学研究生院和外语学院(系)的大力支持。我们全体编写人员在此谨表示衷心的感谢。

本系列教材的编者怀着为中国的工程硕士研究生英语教学改革及课程建设略尽微薄之力的心情,编写了这一套系列教材。由于编者经验不足,水平有限,缺点在所难免。我们诚挚地希望广大师生和读者提出批评和建议,以便使该教材在今后的修订中不断得到改进和完善。有什么想法、建议和要求请与我们联系。

联系方法:Email:chenli66@mail.xjtu.edu.cn;

txy@mail.xjtu.edu.cn;

Tel:029—82664981, 029—82664953。

王同顺

2005 年1 月于上海

前言

《泛读教程》是“21 世纪工程硕士研究生英语”系列教材的主干教材之一。其编写依据是国务院学位办和教育部工程硕士指导委员会颁布的《全国工程硕士专业学位研究生英语大纲》。本教材通过高质量的英语语言的输入,配合系列教材的《综合教程》,培养工程硕士研究生的英语阅读、写作和翻译能力。

《泛读教程》旨在使学生通过大量阅读英语文章来扩充词汇量,提高阅读技能,以及熟练获取信息的能力和独立阅读原著的能力。

《泛读教程》共有十个单元,每个单元包括 Part A, Part B 和 Part C 三篇阅读材料。工程硕士研究生英语教学时数课内外比例为 1:3。建议将 Part A 用于课堂教学。Part B 和 Part C 用于学生课外自主学习。

《泛读教程》具有以下主要特点:

1. 题材广泛,时代感强:30 篇课文均选自近年来英、美国家原文期刊和杂志上刊登的文章,内容涵盖了科学技术、经济、环境、事业与成功、文化等方面,内容丰富,趣味性强。

2. 内容实用,针对性强:选文适合工程硕士研究生的实际水平,符合工程硕士研究生的英语教学要求和学生实际,文章内容与所学专业有机结 合,针对性强,便于激发学生进一步学习英语的积极性。

3. 语言规范,可读性强:选文经反复筛选,均为原汁原味的佳作。语境真实,用词准确,有利于工程硕士研究生打好语言基础,进行进一步的语言实践和提高。

4. 练习形式多样,量度合理:练习题设有多种形式,能够满足工程硕士研究生英语学习的要求并符合其学习特点。各个练习题目量度合理,既适于课堂练习又方便学生课下自学。

由于编选时间仓促,加之编者水平及经验有限,书中错误和疏漏之处在所难免,敬请广大读者批评指正。

编 者

2006 年 1 月

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Unit 1

Part A

Pre-reading questions

1. How do you define successful people?
2. What kind of success do you want to achieve?
3. What quality stuff do you think you need to cultivate in order to win final success?

What Successful People Have in Common

Is there a “success personality” — some winning combination of traits that leads almost certainly to achievement? If so, exactly what is that secret success formula, and can anyone cultivate it?

We recently focused in depth on success, examining the attitudes and traits of 1,500 outstanding people selected at random from *Who's Who in America*. The main criterion for inclusion in *Who's Who* is not wealth or social position, but current achievement in a given field. Our research points at a number of traits that occur regularly among top achievers. Here are five of the most important:

1. Common sense. This is the most important quality possessed by our respondents. Seventy-nine percent award themselves a top score under this item. And 6 percent say that common sense was very important in contributing to their success.

To most, common sense means the ability to render sound, practical judgments on everyday affairs. To do this, one has to sweep aside irrelevant ideas and get right to the core of what matters. A Texas oil company manager puts it this way: “The key ability for success is simplifying. In conducting meetings, reducing a complex problem to the simplest

terms is highly important.”

Is common sense a trait a person is born with, or can you do something to increase it? The oil man's answer is that common sense can definitely be developed. He attributes his to learning how to debate in school. Another way to increase your store of common sense is to observe it in others, learning from their—and your own—mistakes.

2. Knowing one's field. After common sense, specialized knowledge in one's field is the second most common trait possessed by the respondents, with three-fourths giving themselves an A for this trait.

Geologist Philip Oxley, former president of Tenneco Oil Exploration and Production Co. and now chairman of Tenneco Europe, attributes his success to having worked in the oil fields. By “sitting on wells”, he learned the tricks of the trade firsthand. “People who are going to be good managers need to have a practical understanding of the crafts in their business,” he says. Today his expertness earns him a six figure salary.

On-the-job experience convinced one news photographer of the importance of specialized knowledge. He says that “understanding why my equipment performs the way it does” is part of his success formula. A noteworthy point: he obtained his specialized knowledge through self-education and not through formal schooling.

3. Self-reliance. Top achievers rely primarily on their own resources and abilities. Seventy-seven percent give themselves an A rating for this trait.

Self-reliance is not how you feel or how good you are; rather, it's whether you have the courage to take definite action to get things moving in your life. It includes plain old willpower and the ability to set goals.

Two-thirds of the respondents say they've had clear goals for their lives and careers. And half of those we interviewed give themselves an A in willpower. Among other capabilities, willpower includes the ability be a self-starter and to persist after a project has begun.

4. General intelligence. This is essential for outstanding achievement because it involves your natural ability to comprehend difficult concepts quickly and to analyze them clearly and precisely. At least that's the way our respondents see it—43 percent said it was a very important ingredient of their success, and another 52 percent said it was fairly important. Recent studies suggest that many types of intelligence can't be measured with the usual methods, such as by I. Q. tests. Still, it's interesting that our respondents had high I. Q. s, with an average score of 140.

From our survey, we confirmed—not surprisingly—that the general intelligence of our respondents consists of at least three elements besides I. Q. : an extensive vocabulary, and good reading and writing skills. During the year preceding the survey they read an average of 19 books, including ten nonfiction works. These top achievers aren't just talking about an inborn capacity when they speak of intelligence. A finance executive sums it up this way: “An inquiring mind and broad-ranging interests are fundamental to success.”

5. Ability to get things done. Nearly three-fourths of our high achievers rank themselves “very efficient” in accomplishing their tasks. And they agree that at least three important qualities have helped them to do so: organizational ability, good work habits and diligence.

A physics professor summarizes his success formula this way: “Hard work, with the ability to pace oneself.” He admits working up to 100 hours a week.

Besides the five listed here, there are other factors that influence success: leadership, creativity, relationships with others, and, of course, luck. But common sense, knowing your field, self-reliance, intelligence and the ability to get things done stand out. If you cultivate these traits, you will be very likely to succeed. And you might even find yourself listed in *Who's Who* someday.

New Words

personality /pəːsənæliti/ *n.*

the whole nature or character (of a particular person) 性格, 人格

trait /treiit/ *n.*

a particular quality (of someone or something) 显著的特点, 特性

prominent /ˈprɒmɪnənt/ *adj.*

of great ability, fame, etc 卓越的, 显著的

criterion /kraɪtəriən/ *n.*

an established rule, standard, or principle, on which a judgment is based (批评判断的) 标准, 准则, 规范

respondent /rɪspɒndənt/ *n.*

a person who responds or makes reply 回答者

irrelevant /ɪrəlɪvənt/ *adj.*

not related 不相关的, 不切题的

core /kɔː/ *n.*

the most important part of something 中心, 核心

attribute /əˈtrɪbjʊ(:)t/ *n.*

to believe (something) to be the result of 归结于

geologist /dʒɪˈɒlədʒɪst/ *n.*

expert in geology 地质学者

craft /kra:ft/ *n.*

occupation, especially one that needs skill in the use of the hands; such a skill or technique 工艺, 手艺

noteworthy /ˈnəʊtwɜːði/ *adj.*

worthy of attention 值得注目的, 显著的

rating /reɪtɪŋ/ *n.*

class 等级级别, 额定

comprehend /kəmˈpriːhend/ *vt.*

to understand 领会, 理解

confirm /kənˈfɜːm/ *vt.*

to give proof of 确定, 确认

executive /ɪˈzekjʊtɪv/ *n.*

person in a business or organization, trade union, etc. with administrative or managerial powers 执行者, 经理主管员

diligence /dɪlɪdʒəns/ *n.*

being hard working 勤奋

creativity /kriːˈeɪtɪvəti/ *n.*

the ability to produce new and original ideas and things 创造力, 创造



Phrases

in depth: thoroughly 深入地, 在深度上

sweep aside: ignore, put aside 漠视

reduce...to: change something to a more general or basic form 把...简化为, 使...为

attribute to: regard something as belonging to, caused by or produced by sb./sth. 把...归功于, 认为某事是...的结果

sum up: give a brief summary 总结, 概括




Notes

Who's Who in America:《美国名人录》

Texas ['teksəs]: 德克萨斯州(美国州名)

Tenneco Oil Exploration and Production Co.: 坦尼科石油勘探生产公司

Tenneco Europe: 坦尼科欧洲分公司



Exercises

Reading Comprehension

A. Directions: Choose the best answer to each of the following questions.

- By "success personality" the writer means _____.
 - a person who is successful in life
 - the qualities that make a person successful
 - a person who enjoys his success
 - a pleasing and winning personality
- Who's Who in America selected people for inclusion on the basis of _____.
 - their outstanding achievements in their own fields
 - the international fame they achieved
 - the high position they once held in the government
 - the large wealth they accumulated in their life
- According to the author, with good common sense, one would be able to _____.
 - reduce complex problems to none
 - solve complex problems quickly
 - change complex problems to the basic form
 - get right to the core of what matters
- Owing to his specialized knowledge geologist P. Oxley earned _____ every year.

- A. six times more than he expected
 - B. six times more than his colleagues
 - C. more than one hundred thousand US dollars
 - D. more than one million US dollars
5. The example of the news photographer shows that _____.
- A. self-study is always more effective than formal schooling
 - B. without on-the-job experience one will never realize the importance of specialized knowledge
 - C. specialized knowledge helps one to understand the performance of the equipment
 - D. specialized knowledge can often be obtained through practice
6. As far as general intelligence is concerned, most successful people _____.
- A. think that intelligence tests are not reliable
 - B. hold that it accounts for 43 percent of their success
 - C. believe that intelligence tests cannot measure their vocabulary extent, reading skills and writing skills
 - D. have very high I. Q. scores
7. Which person is not mentioned in the passage as an example of successful people?
- A. Oil manager.
 - B. Survey respondent.
 - C. News photographer.
 - D. Physics professor.
8. The achievements of the most successful people can lead to such an inference that _____.
- A. they have the traits cultivated and improved through practice
 - B. they are born with the traits
 - C. they have obtained the traits both from practice and other people
 - D. they have cultivated the traits consciously

B. Directions: Write a T in front of the statement if it is true according to the text and an F in front of the statement if it is false.

- 1. () The 1,500 prominent people are selected for the research because of their achievements in life—immense wealth and high social position.
- 2. () Common sense accounts for more than seventy-nine percent of a person's achievements.
- 3. () Each respondent is asked to give a score on the questionnaire in each item of traits which they think contribute to their success.
- 4. () Successful people usually have the ability to get to the heart of a complex problem.
- 5. () Seventy-nine percent of the respondents said that they were born with common sense, a trait which led to their success.

6. () Three fourths of the respondents built up their expertness though self-education
7. () People in high positions are usually successful because they have the right to take definite actions and to get things done for them.
8. () The conventional I. Q. tests have their limitations and cannot measure many types of intelligence.

C. Directions: Choose the option that can best interpret the italicized part in the given sentence.

1. We recently focused *in depth* on success, examining the attitudes and traits of 1,500 outstanding people selected at random from Who's Who in America.
 - A. very hard and carefully
 - B. within a limited field
 - C. with great thoroughness
2. Our research points at a number of traits that occur regularly among top *achievers*.
 - A. researchers in high positions
 - B. those with the highest achievements
 - C. highly respected research scholars
3. To do this one has *to sweep aside* irrelevant ideas and get right to the core of what matters.
 - A. to walk past
 - B. to remove
 - C. to clean thoroughly
4. In conducting meetings, *reducing a complex problem to the simplest terms* is highly important.
 - A. decreasing complex problems to a minimum
 - B. breaking complex problems into pieces
 - C. changing complex problems to simplest forms
5. After common sense, specialized knowledge in one's field is *the second most common* trait possessed by the respondents.
 - A. the second common
 - B. the least common
 - C. the most common but one
6. A physics professor summarizes his success formula this way: "Hard work, with the ability *to pace oneself*."
 - A. to walk by oneself
 - B. to set an appropriate work rate
 - C. to keep up with oneself

Language Focus

Directions: Use words/phrases that appear in the text to replace the following underlined words/phrases.

1. Many of the accidents which occur on roads could be largely regarded as human errors.
2. The article strongly argues for the need to develop students' abilities of self-reliance, creativity and independent thinking in higher education.
3. Most members of the United Nations gave their full support to the UN's action against the American invasion of Iraq.
4. Having been carefully examined, Jerry was accepted as a crewman of the space ship.
5. It has been proved by our subjects in the recent survey that their main purpose for learning a foreign language is to obtain some necessary information from their reading.
6. Computers change complicated mathematical problems to the simplest forms that even children can do.
7. I would take this film as the best I have ever seen.
8. If you want to put the matter to a vote, you have to remove all opposition.
9. The speaker analyzed thoroughly the current situations at home and abroad.
10. She takes lots of exercise every day by walking or swimming.

Comprehensive Exercise

Directions: Translate the following into Chinese.

Einstein said in 1945, "Now everything has changed except our manner of thinking... We shall require a substantially new manner of thinking if mankind is to survive." Then, what leadership is required today? The first requirement is a new kind of leadership committed to a new manner of thinking.

From ancient times to the present, the most esteemed leaders have been war leaders, like Churchill, who through eloquence and force of character inspired the British people to stand against Hitler's onslaught. But by contrast, what was so great about Alexander the Great, who contributed little to the culture, politics, or religion of the ancient world, whose legacy was one of conquest, destruction, self-aggrandizement, and savagery?

Today we need a leadership that recognizes that the fundamental challenge in this nuclear hi-tech era is one of psychology and education in the field of human relations. It is not the kind of problem that is likely to be resolved by expertise—even the sophisticated expertise of our most gifted military thinkers, who delight in exotic weapon systems and strategic doctrines. The attributes upon which we must draw are the human attributes of compassion and common sense, of intellect and creative imagination, and of empathy and understanding between cultures.



Part B

The Age of Superstuff

The Stone Age. The Iron Age. Entire epochs have been named for materials. So what to call the decades ahead? The choice will be tough. Consider: high-fidelity loudspeakers made of transparent plastic film. Windshields that tint with the flip of a switch. Friction-free truck engines that require no radiator and get 100 miles to the gallon. Cars that never rust—running on highways without potholes. Replacement hip joints that meld with natural bone.

Welcome to the age of superstuff. Materials science—once the least sexy technology—is bursting with new, practical discoveries, led by superconducting ceramics that may revolutionize electronics. But superconductors are just part of the picture; from houses and cars to cook pots and artificial teeth, the world will someday be made of different stuff. Exotic plastics, glass and ceramics will shape the future just as surely as have genetic engineering and computer science. The Japanese are forging ahead with new applications, and one important question is: can the United States compete in the race to move superstuff into daily life?

The key to the new materials is researchers' increasing ability to manipulate substances at the molecular level. Ceramics, for example, have long been limited by their brittleness. But by minimizing the microscopic imperfections that cause it, scientists are making far stronger ceramics that still retain such qualities as hardness and heat resistance. Ford Motor Co. now uses ceramic tools to cut steel. Several Japanese automakers produce ceramic engine parts. A firm called Kyocera has created a line of ceramic scissors and knives that stay sharp for years and never rust or corrode. And since ceramics can withstand higher temperature than steel, U.S. and Japanese firms have made prototype ceramic diesel engines that run without a cooling system, allowing higher efficiency and lower weight.

A similar transformation has overtaken plastics. High-strength polymers now form bridges, ice-skating rinks and parts of experimental auto engines and helicopter rotors. Plastic bumpers and fuel tanks will soon be commonplace in new cars. And one new plastic that generates electricity when vibrated or pushed is used in electric guitars, touch sensors for robot hands and karate jackets that automatically record each punch and chop.

Even plastic litter, which once threatened to permanently blot the landscape, has