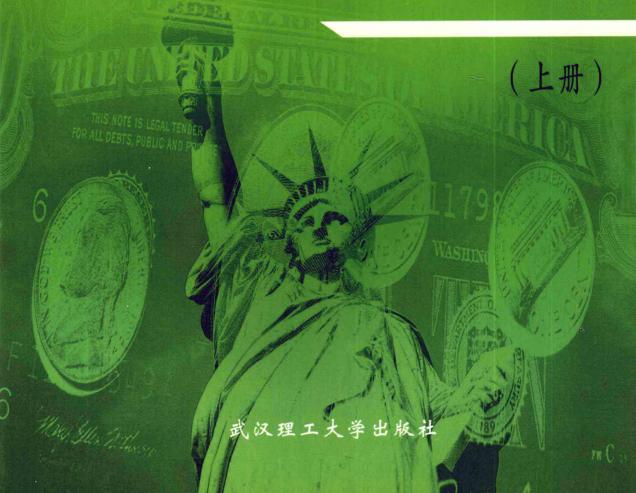
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新编研究生

魏万德

英语教程



新编研究生英语教程

——求知、求实、求真系列

(第二版)

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前 言

根据《非英语专业研究生英语 (第一外语)教学大纲》,硕士生英语教学应提倡从实际出发,博采众长,讲究实效,并在加强理论研究和不断实践总结的基础上,努力探索和建立适合我国国情的硕士生英语教学体系。为了适应国家和社会对高层次专业人才越来越大的需求,非英语专业研究生的英语教学也必须加快改革的步伐,以培养出更多的全面掌握英语、善于以英语为工具进行专业研究和工作的高级人才。非英语专业研究生英语教学所使用的教材也应该适应时代需求进行相应的改革。《新编研究生英语教程——求知、求实、求真系列》结合使用"任务教学法"和"主题教学法",强调学生的自主学习和研究能力的培养,旨在培养学生具有较熟练地阅读有关专业书刊的能力,熟练地与相关领域国外专家交流的能力,熟练地运用英语进行相关领域专业论文的撰写能力。因此教材强调应用,结合专业英语的特点,突出说、读、写、译等训练。

《新编研究生英语教程——求知、求实、求真系列》自 2006 年出版以来,经过两年的实践教学使用,受到了广大师生的青睐,用书师生纷纷反映教材在编写理念和材料选取上有独到之处,充分反映了研究生英语实用能力提高的需要。但随着全国高校研究生教学的学时数、课程设置等方面都进行了相应的调整,针对研究生英语教学改革的实际,教材编写教师经过反复的研讨,对教材进行了修订。修订后的教材,仍然坚持以下几个基本原则:

- 1. 既依托大纲,又不拘泥于大纲,充分反映了当前国内、国外英语教学的最新趋势;
 - 2. 指导学生的学习方法,提高学生的学习能力;
 - 3. 打好学生语言基础,着重培养其语言运用能力;
 - 4. 听、说、读、写、译等多种技能融会贯通;
 - 5. 把握时代对研究生的要求,突出对外学术交流的需要。

本教材汇集了众编者教师多年的实践教学经验。编者们博取众长,从曾经使用过的教材中汲取精华,避免了其他教材中存在的问题,并在研究生英语教学中试用多次从而发现不足并及时更正完善教材。教材的创新体现在三个方面:首先是文化比较创新。英语教材不再局限于英语国家文化的介绍,而是通过中西方文化的比较教学促进学生对文化概念的理解并有助于不同文化的交流。通过一般性、渗透性和总结性的文化比较,激发学生学习兴趣和探索兴趣。其次是教学形式创新。传统的英语教学通常是以课堂教学为主,学生学习练习为辅。

新教材中的学前调研、课堂讨论以及课后交流活动则侧重于学生自主搜集资料进行学习理解并运用知识进行实践交流活动的能力。教师的作用仅在于引导和组织学生进行自主学习和交流讨论。通过将研究讨论会以学生自主学习为主的学习形式与传统以教师授业解惑为主的教学方式相结合,以充分调动学生的主动性,加强师生互动性,开辟研究生教学的新途径。此外在内容安排上也有较大创新。新教材在主体文章题材的选取上突出了科学知识的广泛性,涉及各个知识领域,以扩充学生的非专业知识,巩固所学的专业知识。

《新编研究生英语教程——求知、求实、求真系列》含教材和学习指导两部分。教材分上下两册,每册各 10 单元。针对综合院校多学科的特点,每单元涉及到的主题十分广泛,与理工科的专业紧密相关,语言规范,内容新颖,力求反映真实生活,与时代同步,又从对课文的理解着手,偏重于围绕基本语言能力的综合训练。本书的课文从各个不同的形式和题型帮助并引导学生理解课文的内容,深入了解课文的主题思想与作者的意图,并对该主题涉及专业领域有一定了解。本书的课文包括不同的题材和体裁,内容有一定的思想性、趣味性和启发性,有利于学生在巩固所学内容、提高基本技能的同时拓展文化知识面,加强文化素质的培养。

全书各单元由 Read, Learn, Explore 三大部分组成,并配以与主题相关的图片以启迪学生思维。Read 相当于导读部分,即通过经典短文的阅读学习对该单元相关主题进行文化导人,激发学生对该专题的兴趣并引发学生思维。该部分还配以习题,加深学生对文章的理解。Learn 精读部分,即在导读的基础上对精选课文进行系统全面的学习,以课堂讲学为主,学生讨论自学为辅。课文后的练习将重点放在学生英语实用能力的加强和提高上。Explore 为学生自主研究并撰写报告论文进行学术讨论和交流部分,即通过学生的后期自主调查研究学习并开展学术讨论来加深学生对相关主题内容的了解和拓展,锻炼学生的实用口头交际能力。

本教程适合非英语专业硕士研究生第 1、2 学期使用,每单元设计教学时间为 4 学时。教师可根据学生的实际水平、班级人数、教学时间和条件灵活使用。

参加本教程编写的有许之所、王达金、陈文娟、郭齐梅、黄岚、黄青、李从庆、李婧、李晓鸣、李丽芳、卢晓丽、门高春、彭汉良、童少桢、王念、吴兰、吴卫平、谢群、杨瑛、张海燕、曾博、刘茜红、何桂英、肖先明等。

此外,特别要感谢柯建华、邹智勇、刘升民等教授给予的指导和大力支持。

鉴于编者水平和时间因素,教材中难免有疏漏和错误,恳请广大专家和读者 批评指正。

> 编 者 2008年6月

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1. Read

Of Studies

Francis Bacon

Studies serve for delight, for ornament and for ability. Their chief use for delight is in privateness and retiring; for ornament, is in discourse; and for ability, is in the judgement and disposition of business. For expert men can execute, and perhaps judge of particulars, one by one; but the general counsels, and the plots and marshalling of affairs, come best from those that are learned. To spend too much time in studies is sloth; to use them too much for ornament, is affectation; to make judgement wholly by their rules is the humour of a scholar. They perfect nature, and are perfected by experience: for natural abilities are like natural plants, that need pruning by study; and studies themselves do give forth directions too much at large, except they be bounded in by experience. Crafty men condemn studies, simple men admire them, and wise men use them; for they teach not their own use; but that there is a wisdom without them, and above them, won by observation. Read not to contradict and confute; nor to believe and take for granted; nor to find talk and discourse; but to weigh and consider. Some books are to be tasted, others to be swallowed, and some few to be chewed and digested; that is, some books are to be read only in parts; others to be read, but not curiously; and some few to be read wholly, and with diligence and attention. Some books also may be read by deputy, and extracts made of them by others; but that would be only in the less important arguments, and the meaner sort of books; else distilled books are like common distilled waters, flashy things. Reading maketh a full man; conference a ready man; and writing an exact man. And therefore, if a man write little, he had need have a great memory; if he confer little, he had need have a present wit; and if he read little, he had need have much cunning, to seem to know that he doth not. Histories make men wise; poets witty; the mathematics subtile; natural philosophy deep; moral grave; logic and rhetoric able to contend. Abeunt studia in mores. Nay, there is also no stand or impediment in the wit, but may be wrought out by fit studies; like as diseases of the body may have appropriate exercises. Bowling is good for the stone and reins; shooting for the lungs and breast; gentle walking for the stomach; riding for the head; and the like. So if a man's wit be wandering, let him study the mathematics; for in demonstrations, if his wit be called away never so little, he must begin again. If his wit be not apt to distinguish or find differences, let him study the schoolmen; for they are cymini sectores. If he be not apt to beat over matters, and to call up one thing to prove and illustrate another, let him study the lawyer's cases. So every defect of the mind may have a special receipt.

(509 words)

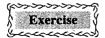


beat over matters

marshalling /'ma:[əlin / sloth /sleuθ/ affectation / æfek'tei[en / too much at large contradict / kontre'dikt / 71 confute /kənˈfju:t/ by deputy distill / di'stil / flashy / ˈflæ[i/ adj. a ready man confer / kən'fə: / a present wit subtile / ə'sʌtl / adi. contend / ken'tend / abeunt studia in mores impediment / im'pediment / demonstration / demonstrei on / n. cyminisectores

排列 懒散 装腔作势 不着边际 反驳 驳倒(人,论据等度) 请人代理 蒸馏 浮华的 善于应付的人 交换观点 有急智 精确的 辩论 (Latin) studies pass into the character 妨碍 推演数学题 (Latin) 过分讲究的人 详细审察事物







Talk about it

- 1. Do you agree with the author's opinion"but the general counsels, and the plots and marshalling of affairs, come best from those that are learned"? Please state your reasons.
- 2. To what extent can the statement "natural abilities are like natural plants" be true?
- 3. Why different people have different attitudes toward studies?
- 4. What kinds of books are to be tasted or swallowed and what to be chewed and digested? Illustrate your points with examples.
- 5. What are the relationships between reading, writing and conversation?
- 6. What are the functions of those different disciplines?
- 7. Why a simile is used here "like as diseases of the body may have appropriate exercises."?
- 8. To what extent do you think the author is right in providing the treatments to different problems?
- 9. Retell the general idea of the essay.
- 10. What have you actually learned through studying this famous essay by Francis Bacon?



Learn about it

- 1. Studies serve for delight, for ornament, and for ability.
- 2. Some books are to be tasted, others to be swallowed, and some few to be chewed and digested.
- 3. And studies themselves do give forth directions too much at large.
- 4. Read not to contradict and confute; nor to believe and take for granted.
- 5. There is no stand or impediment in the wit but may be wrought out by fit studies.
- 6. Some few to be read wholly, and with diligence and attention.
- 7. If he be not apt to beat over matters, and to call up one thing to prove and illustrate another, let him study the lawyer's cases.
- 8. Their chief use for delight is in privateness and retiring.



Think about it

- 1. List your principles of reading. Ask your partner for his or hers.
- 2. What kind of book is your favourite? Tell the class your reading habits.



Surf about it

- 1. http://www.sust.edu.cn/ours/article.asp? id=101
- 2. http://www.yuyicn.com/edu/2005/200511/20051120114312_20307.shtml

2. Learn

Getting Ready to Read

- 1. Do you know anything about American science education?
- 2. Do you think market forces play an important role in the curricular organization?
- 3. What are the major aims of science education?

scrutiny	counterpart	disproportionate
impede	deemphasize	nuance

Is the American Approach to Science Education the Best in the World?

Market Forces— Driving Science Education in the United States

Vladimir Garkov

[1] In the current climate of international test competitions and increased student exchanges, science and science education teaching practices have come under closer **scrutiny** in the United States. The European style of teaching has been **touted** by some educators because of the ranking of European students on international tests. Based on comparative sta-



tistical data, however, I believe that the U.S. approach to science education is more efficient and appropriate than the European one.

- [2] European students conclude their liberal arts education, including the sciences, at the secondary level of schooling with comprehensive exit examinations. Consequently, European universities are for specialization only and exclude general education components, Students often follow a strict and rigid **curriculum** in both high school and college that allows for very few electives.
- [3] The level of science instruction in Europe (especially in Eastern Europe) is relatively high. For example, 90 percent of Bulgarian students graduate from high school having completed **trigonometry** and with scientific knowledge equivalent to introductory courses for science majors at an American college.
- [4] The educational system in the United States stands apart from the rest of the world, however, because it operates with a free market spirit in a much less regulated, more laissez-faire climate. Its curricular organization is less structured, allowing the students themselves the freedom to make their own educational choices. This aspect of the American system is its strength, I believe.
- [5] Most American institutions of higher learning (unlike their state-sponsored, largely tuition-free European **counterparts**) must compete for students. Market forces therefore compel curricular organization, to be centered on student"customers". Universities must teach in a student-sensitive manner and offer, shopping-mall style, a great variety of courses that will attract as many students as possible.
- [6] Because of the comparatively less comprehensive curriculum of American high schools, nearly every American who completes high school (72 percent of the population) enters an institution of higher education (68 percent of the population). In contrast, about 85 percent of all Europeans graduate from high school while only about 20 percent continue on to universities. Therefore, most colleges in this country need to have general education requirements, including science courses for nonscience majors. This leads to a lowering of the amount of course work in the major field.
- [7] For example, an American Chemical Society-certified program in chemistry at a prestigious liberal-arts institution like Washington & Lee

University in Virginia requires 72 credit hours of course work in chemistry, physics, and math. In comparison, obtaining a chemistry degree from the University of Sofia in Bulgaria requires 166 credit hours in the same course work.

[8] What are the societal outcomes of the American and European instructional models in regard to the two major aims of science education (i. e., scientific **literacy** among the general population and training of future scientists)? Numerous studies, including the most recent Third International Math and Science Study (TIMSS), have shown that students in Europe and especially those from its eastern part, upon graduating from high school, are much better prepared in the sciences than their American counterparts.

[9] A high level of scientific understanding among the general population is connected to expectations of high productivity in the work place. Indeed, American workers do have a slightly lower productivity than their French or German counterparts if measured relatively, by gross domestic product (GDP) per hour worked. However, the difference is small enough to be more than offset by the fact that, in the United States, the average annual hours worked (nearly 2,000) per person in employment is much higher than the same hours in Europe (around 1, 600), thus generating a significantly higher per capita GDP. Interestingly, according to The Economist, American productivity rose by an annual average of 1.6 percent in the 10 years to 2000, but European area productivity rose by 1.9 percent.

[10] Concerning the second goal of science education—the training of future scientists and engineers—it appears that the less structured American approach to science education, which leaves behind the vast majority, still manages to encourage and catch the scientifically talented ones. There is hardly any statistical difference between the performances of the top science students in countries around the world, **irrespective of** their educational backgrounds. However, scientifically talented young Americans are contributing articles in scientific and technical journals that are cited in excess of the United States' world share. In addition, American scientists have received a **disproportionately** high number of the Nobel prizes awarded in the physical and life sciences.

[11] Many factors contribute to the United States' scientific and eco-



nomic success. According to some experts, one of these factors is the uniquely American way of instruction, which **deemphasizes** rote memorization and develops higher-order thinking skills. This notion is not supported by cross-national research evidence, however. In fact, the TIMSS showed that the average American student does well with simple "facts" but shows less critical and **analytical** ability than his or her overseas counterparts. This is attributed to the fact that schools in the United States do not require higher-level science classes, and teachers, instead of fostering understanding of new concepts, tend to simply state them.

[12] A second factor contributing to the scientific success in the United Sates may be the **influx** of young, overseas-educated immigrants, who fill nearly half of the slots in the graduate programs in the sciences. The United States is known to have a more open immigration policy and a generally tolerant, welcoming culture. Twenty to 35 percent of the science and engineering faculty in the U.S. higher education are foreign-born. A recent study shows that foreign-born scientists contribute a disproportionally high degree to scientific research in the United States. America may be considered as either a land of opportunity in which talents flourish in ways that are difficult at home or as a sly merchant who lures the best and the brightest by paying more and offering better laboratory facilities.

[13] I would like to offer a third, additional explanation for the scientific and economic success of the United States I believe that it is related to the uniquely American laissez-faire curricular organization, which is especially efficient at and appropriate for teaching mathematics and the natural sciences(only!).

[14] What exactly makes science education different from the art, humanities, and social sciences? It is a well-known philosophical phenomenon that the world of the natural sciences deals with objects that do not possess self-awareness and are independently external to us. Major breakthroughs in mathematics and the natural sciences, where the number of variables is comparatively small, tend to be associated with younger researchers, whose knowledge of the subject matter is quite limited—narrow and deep rather than wide and comprehensive. More knowledge and accumulation of schemata may actually **impede** innovative thinking in the natural sciences.

[15] In contrast, the knowledge structure of the humanities / social sciences is more horizontal, with a higher number of subjective variables and cultural **nuances** that require more time to be **assimilated**. Their study does not call for the mastery of a "foreign language" of math symbols or science vocabulary or the application of strict natural laws that often defy common sense. For example, a student may find it much easier to read and comprehend the content of a history textbook while the same student most probably will need some preliminary instruction before even approaching an organic chemistry textbook. Therefore, the exploration of literature, history, and geography appears to come more naturally to humans, requiring a more demanding instructional approach.

[16] Researchers and science educators have shown that humans are not naturally inclined to think rationally. The formal, logical thinking needed for math and science may not be beneficial to an individual from a historical and evolutionary perspective. The use of **intuition** appears to be a faster and more natural way of solving everyday problems. The learning patterns for the vast majority of the general population are nonabstract and more concrete. Shamos, a former president of the National Science Teachers Association, writes that efforts to **instill** rational thought into nonscience students have been largely fruitless because "so much of modern science defies common sense."

[17] The idea that science does not come naturally to humans is further supported by the fact that the percentage of scientists and engineers is relatively small and fairly constant throughout the world. The percentage of all 24-year-olds with university degrees varies from 33 percent in North America to around 16 percent in Europe. However, the number of university graduates with degrees in the sciences and engineering is practically the same on both sides of the Atlantic, around five percent of all 24-year-olds. Perhaps this figure actually reflects the small segment of the population that is naturally inclined to do math and science.

[18] Perhaps America excels at science, technology and economics not despite but because of the comparatively lower levels of scientific and cultural knowledge of its work force. This absence of breadth allows for the development of good professional depth, which is the most important characteristic of the technical fields, as opposed to the humanistic areas



of study. Furthermore, this comparatively narrower preparation of average American workers and professionals may be one of the factors (together with American Puritan cultural heritage) that contributes to the development of a work ethic unmatched by any other economically advanced nation. Lower levels of cultural knowledge about areas outside of one's professional expertise naturally decrease the likelihood of investing time exploring those areas.

[19] The likes of Bill Gates, for example, were probably never required to read Don Quixote or Faust as most Europeans are, leading to a higher concentration of their creative energy in one area. It appears that the American educational system produces more focused individuals because this system allows students both at the high school and college levels comparatively more freedom to avoid certain subjects without the pressure of comprehensive external examinations and without the strait-jacket of **rigid** national curricula.

[20] In Europe, knowledge of geography, history, art, and literature is instilled through a rigorous educational structure. This knowledge is considered to be the most important component of national and personal identity. In contrast, most Americans, who are used to a more laissez-faire education, seem to identify themselves largely with the work they do. Perhaps this is one of the major factors that may actually help the United States lead the world in scientific innovation and economic prosperity.

[21] In conclusion, the American educational style, where children are encouraged to follow their own inclinations, allows for a better self-selection, which is appropriate for the sciences because the knowledge required in this field does not come so naturally to humans. In contrast, exploration of literature, history, or geography is a more "human" affair. Providing people with a meaning for their existence and a sense of belonging to a common cultural milieu called civilization.

(1,383 words)



scrutiny / 'skru:tini / n.

careful and thorough examination 仔细而又

彻底的检查

高度赞颂

tout /taut/ n.

10

curriculum / kəˈrikiuləm / n.

a course of study offered in a school, college

全部课程

trigonometry / traige'nomitri / n.

三角学

counterpart / kauntəpa:t / n.

a person or thing that serves the same pur-

pose or has the same position as another 与

之相对应的人或物

disproportionate / dispre'po: fenit / adj.

unequal, too much or to little 不相称的,不

成比例的

influx / 'inflaks / n.

the narrow, or movement inwards of large

numbers 流入,涌进

impede / im'pi:d / v.

to get in the way of, make (sth.) difficult

to do 妨碍

assimilation / əsimi'leifən / v.

instill / in'stil / v.

to (cause to) become part of (使)同化

put (ideas, feelings) into someone's mind

by a continuing effort 逐渐灌输(思想 / 感情)

rigid / 'rid3id / adj.

刻板的

literacy / literesi / n.

阅读和写作的能力

irrespective of

不论,不考虑

deemphasize / di:'emfesaiz / v.

1 of 1 or now to 12

analytical / æne'litikel / adj.

分析的

不强调

intuition / intju(:)'if en / n.

直觉

nuance / nju:'c:ns, - 'o:ns / n.

(颜色、意义等)细微的差别

Notes

- 1. Puritan:清教徒(英国基督教新教徒中的一派,主张严肃的生活和简单的宗教仪式)
- 2. rote memorization: 死记硬背
- 3. schemata:哲学术语,先验的图式(指从现实经验中概括出的模式或概念)
- 4. liberal arts:大学的一般课程,文理科目(如哲学、历史、文学、语言、数学等) (美)大学文科
- 5. laissez-faire:(法)自由放任





Understanding

- 1. Why does the author think the U.S. approach to science education is more efficient and appropriate than the European one?
- 2. What is the explanation to the scientific and economic success of America?
- 3. How do market forces drive science education?
- 4. "The freedom to make their own educational choices is its strength". Do you agree that such freedom is its strength? Why or why not? What do you think of this aspect in China's educational system?
- 5. Do you agree that efforts to instill rational thought into nonscience students have been largely fruitless? State your reasons.
- 6. "Scientifically talented young Americans are contributing more articles in scientific and technical journals that are cited in excess of the United States' world share." Does this necessarily mean that the American youngsters are better-educated as a whole?
- 7. If we admit that foreign-born scientists contribute much more to scientific research in U.S, can we justify that the U.S. approach to science education is more efficient than European one?
- 8. Do you believe that "more knowledge and accumulation of schemata may actually impede innovative thinking in the natural sciences"?
- 9. Do you agree that the comparatively lower levels of scientific and cultural knowledge of the work force allows for the development of good, professional depth?
- 10. Explain your understanding "so much of modern science defies common sense".



- 1. Science and science education teaching practices have come under closer scrutiny in the United States. (Para. 1)
- 2. The educational system in the United States stands apart from the rest of the world. (Para. 4)
- 3. Universities must teach in a student-sensitive manner and offer, shoppingmall style. (Para. 5)