通用学术英语

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ENGLISH FOR GENERAL ACADEMIC PURPOSES 2

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GLISH FOR
NERAL ACADEMIC PURPOSES 2

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前　言

“互联网+教育”时代，我国教育信息化进程迅猛发展。着力推进信息技术与外语教育教学深度融合，致力于以学为本的课程体系重塑、课程内容改革，实施基于课堂和在线课程的线上线下混合式教学，推进以学生为中心的教与学方式变革已经成为当前大学英语教学改革的趋势和共识。

《通用学术英语》系列教材在“互联网+教育”时代应运而生，是一套纸质教程、在线课程与课堂教学同步设计、整体研发的新形态一体化教材。本套教材共三册，第一、二册依据《大学英语教学指南》，致力于培养我国大学生用英语进行各学科专业学习的最基本的、通用的核心学术英语能力。第三册是对前两册涵盖技能的整合应用，致力于帮助学生有效阅读和写作与专业相关的英语科技论文，主要使用对象为硕士、博士研究生和本科阶段高年级有需求的学生。

本教材力图体现以下特色：

1. 理念先进，内容新实

本教材体现了学术用途英语领域的最新教学研究成果。基于牛津大学出版社最新出版的教师培训用书*English for Academic Purposes*中提出的通用学术英语技能要素，结合我国学生英语学习的实际情况，在综合深入分析的基础上，把通用学术英语能力分解成16项微技能，并依据Bloom的认知领域教育目标分类系统，将这些微技能按照由易到难、从低阶能力到高阶能力发展的原则编排到16个主题单元中。根据每项微技能的单元内容和教学需求进行整体设计，将与核心技能相关的知识、概念、应用、典型范例（主题相关学术文章与学术讲座）进行模块化结构（思辨、阅读、听说、写作、词汇与结构）拆分，针对微技能精讲精练，引导学生在“做中学”（learning by doing）“学中做”（doing by learning），循序渐进地建构通用学术英语知识，培养通用学术英语技能。

2. 任务驱动，以学为本

本教材突破传统教材以课文为主的知识编排方式，注重以学为本的学习方式的重塑。

通过一系列相互关联、循序渐进的启发式任务统领整个学习过程，任务设计紧扣单元学习目标，可操作性强，完成任务即可习得相关技能。每单元各模块均有一个微课视频（mini-lecture video），呈现相关核心知识点。任务设计与微课视频的教学目标相呼应。任务形式丰富多样，既有限制性任务，也有开放性任务；既有学习型任务，也有自我检测/评价型任务。任务设计中还有一些学习小贴士（study tips），为学生补充完成任务所需的相关知识，并与微课视频形成互补。任务中的典型范例多取自于不同学科的学术期刊、学术语料库及学术网站，与单元主题相关，并服务于任务设计需求。所有阅读材料除了标注专业相关词汇外，未经任何改编，以保证素材的可靠性、真实性与地道性。

3. 一体设计，混合教学

本教材采用纸质教程、在线课程与课堂教学三位一体同步设计、整体研发，支持线上线下混合式教学。一体化研发的设计思路是以通用学术英语能力培养目标为核心，以教学设计为主导，把教材的精华从不同角度、以不同形式、通过不同资源类型呈现给师生。以纸质教程为主线和纽带，联结在线课程学习与课堂教学，三者交叉互补、相互配合。在线课程资源在高等教育出版社iSmart在线课程平台开发建设（电脑端和移动端并行发布），为学生创设支持自主学习与协作学习的在线学习社区（online learning community），主要呈现微课视频，记录学生在线自主学习和协作学习轨迹及数据，辅助学术文章阅读和学术讲座视听。基于在线微技能相关知识的获取与学习，师生在课堂面授环节可根据实际教学需求灵活选用纸质教程中各单元模块的开放性任务，促进学生应用和内化所学技能与知识。此外，为了帮助学生深入理解文章内容，在线课程提供了内容丰富、学习便捷、交互性强的重点词汇、短语释义、难句解析等资源，在培养学术英语技能的同时夯实语言基础。纸质教程与在线课程通过二维码关联，扫描二维码即可关联在线课程，观看微课视频，获取课文详解。

本教材由北京科技大学张敬源教授任总主编，北京科技大学外国语学院中外教师团队合作编写，教学材料经过了教学实践检验、补充和完善。北京科技大学外教、英国利兹大学Ricky Hancock审阅了书稿，并提出了宝贵的意见和建议。北京科技大学外教Ricky Hancock和Hannah Campbell为教材编写及微课视频制作做出了突出贡献。教材中选用的阅读材料均已标注出处，

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《通用学术英语》是在“互联网+教育”时代，我们在以学为本的课程体系重塑和课程内容改革方面做出的一次尝试与探索，不当和疏漏之处难免，敬请使用者批评指正。

编　者

2017年5月

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LISTENING & SPEAKING	WRITING	VOCABULARY & STRUCTURE
Listening for the main idea and supporting details Developing and supporting the thesis of a speech	Ensuring a scientific hypothesis is specific and testable Writing a concise and effective thesis statement	Using sentence patterns to develop focus in academic contexts
Thinking about WHAT and WHY Presenting cause and effect with supporting information	Producing explicit and implicit cause and effect sentences Constructing cause and effect papers	Using signal words/phrases to present cause and effect
Recognizing the structure of an oral presentation Employing effective ways to start a presentation	Planning an analysis Writing an analytical essay	Using modal verbs and modal adverbs in academic contexts
Listening for a discussion Taking notes of a discussion Discussing from notes	Writing a discussion essay Supporting a discussion with exemplification Writing a discussion section of a research paper	Using collocations in a discussion
Taking notes of data interpretation Using notes to interpret data in an oral presentation	Extracting findings from the results of data analysis Conducting interpretation of the findings from data	Using proper signposting language to present data interpretation
Recognizing evaluation stages in a lecture Proposing and evaluating solutions based on your notes	Writing to propose and evaluate solutions Organizing an essay in the SPSE pattern	Using hedging language in academic contexts
Evaluating an argument Listening critically to an interview and a speech Conducting a seminar discussion	Writing an argumentative essay Drafting opening and concluding paragraphs Drafting supporting paragraphs and counterargument paragraphs	Formality of academic language
Listening for suggestions Listening for evaluation Making suggestions based on your notes	Outlining suggestions Identifying potential limitations Providing suggestions	Suggesting objectively

UNIT 1

COMMUNICATION

Famous Quote

Language is the close-fitting dress of thought.

—Richard Chenevix Trench

Academic Focus

Thesis & thesis statement

How-to Question

How to develop a thesis

Learning Objectives

CRITICAL THINKING

- Interpreting and determining the topic and purpose of an assignment
- Understanding the form and testability of a scientific hypothesis

READING

- Identifying literature gaps
- Synthesizing evidence

LISTENING & SPEAKING

- Listening for the main idea and supporting details
- Developing and supporting the thesis of a speech

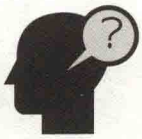
WRITING

- Ensuring a scientific hypothesis is specific and testable
- Writing a concise and effective thesis statement

VOCABULARY & STRUCTURE

- Using sentence patterns to develop focus in academic contexts

CRITICAL THINKING



Mini-lecture 1

Thesis: A brief introduction

This mini-lecture covers:

- recognizing the purpose in writing and reading
- considering the awareness and understanding of your audience
- understanding a thesis and its importance
- stating a scientific hypothesis
- establishing aims and objectives

TASK 1 Recognizing the purpose in writing

1.1 The following verbs are often used to indicate the purpose of a piece of writing. In terms of purpose, academic writing can be categorized into two distinct types: persuasive and informative writing. Decide whether each verb suggests a persuasive or informative purpose. One or two of the verbs may be debatable.

Verbs	Persuasive	Informative	Reason
describe			
analyze			
compare			
evaluate			
argue			
inform			
discuss			
explain			

1.2 Read the writing assignments below. Identify the focus (nouns and noun phrases) and the purpose (verbs) of each assignment.

	FOCUS	PURPOSE
① Solar and wind energy are two forms of sustainable energy that are likely to play a role in combating climate change. However, there is much debate over which should be prioritized by the government. Compare the two forms in terms of their feasibility and financial viability.		
② Ronald Reagan's Brandenburg Gate speech is considered a pivotal moment in the fall of communism across Eastern Europe. Analyze the speech and its rhetoric.		
③ Write a newspaper opinion piece persuading readers that emails are a better form of communication than phone calls.		

STUDY TIP

An argument is common in humanities and the arts. While an argument is usually subjective, it is based on evidence and thought. An argument often requires persuasive writing in order to convince the reader. However, as always in academic English, it should be objective and fairly consider different viewpoints. Generally, the stance of the author is made very clear.

A theory is more common in the sciences. It differs from an argument in that the author's viewpoint is not at the forefront of the writing. In fact, the author should be very happy to see a theory disproved by their own research. Most importantly, a theory should be falsifiable.

1.3 Read the following excerpts and figure out the purpose of each. Does the language of each excerpt differ depending on its purpose? Considering your answers to Task 1.1, how does writing with a persuasive purpose differ from writing with an informative purpose? Remember to think about the target audience.

Text No.	Article Types	Audience	Purpose	Language
	A newspaper article			

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(*continued*)

Text No.	Article Types	Audience	Purpose	Language
	An inflight magazine article			
	A film review			

① Britain's ambassador to the European Union Sir Ivan Rogers dealt a blow to the UK's Brexit negotiations by quitting and urging his fellow British civil servants in Brussels to assert their independence by challenging "ill-founded arguments and muddled thinking".

Sir Ivan Rogers said, in an email explaining his reasons for his abrupt departure to the UK's Brussels diplomatic staff at UKRep, that he was leaving now to give time for his successor to take charge of the lengthy negotiations process which starts in March. But he also made it clear that he had been frustrated by politicians who disliked his warnings about the potential pitfalls in the Brexit process.

SOURCE: Elgot, J., Wintour, P. & Walker, P. (2017). Ambassador to EU quits and warns staff over "muddled thinking". *The Guardian*. Available at: https://www.theguardian.com/politics/2017/jan/03/uk-ambassador-to-eu-quits-amid-brexit-row. (Accessed: 10 January 2017).

② Steeped in history and boasting breathtakingly beautiful natural scenery, Ireland is a sparkling gem just begging to be explored. Take in miles of spectacular coastline sprinkled with lively fishing villages and idyllic sandy beaches. Or discover the unspoiled natural splendour and awe-inspiring ancient monuments of rural eastern Ireland. Experience the legendary 'craic' in vibrant Dublin and visit the beautiful historic cities of Galway, Kilkenny and Limerick.

SOURCE: *British Airways' High Life Magazine*. Available at: http://www.britishairways.com/en-gb/destinations/uk-ireland/ireland. (Accessed: 10 January 2017).

③ Just when you thought the world of Harry Potter couldn't get any darker, along comes a bleak-as-soot spinoff that makes the earlier series look like kids' stuff. Borrowing its title from one of the textbooks Harry studied at Hogwarts School of Witchcraft and Wizardry, "Fantastic Beasts and Where to Find Them" marks the first screenplay written by J. K. Rowling herself. Though the world-renowned novelist had always kept a tight rein on how those adapting her Potter stories went about their task, this assignment gives her the unprecedented ability to address her massive global fan base directly, while current events have given her something more substantive to say.

SOURCE: Debruge, P. (2016). Film review: "Fantastic beasts and where to find them". *Variety*. Available at: http://variety.com/2016/film/reviews/fantastic-beasts-and-where-to-find-them-review-harry-potter-1201916885/. (Accessed: 10 January 2017).

TASK 2

Understanding the scientific hypothesis

2.1 The steps of the scientific method are shown below. Rearrange the steps in chronological order.

a. Communicate the results
b. Test the hypothesis
c. Ask a question
d. Construct a hypothesis
e. Conduct background research
f. Draw a conclusion: do the results validate or invalidate the hypothesis?
g. Obtain results

2.2 Read the following hypotheses. Some are written in the *if... then* form, whereas others are written as a null hypothesis (no relationship between two measured phenomena). Decide which form each hypothesis takes. Tick (√) the appropriate column and then rephrase the hypotheses to fit the *if... then* or null forms.

Hypotheses	*If... then*	Null
① If a person is bilingual, then that person is likely to have a higher income than a monolingual person.		
② If a person spends more than 3 hours a day on a mobile phone, then that person is likely to sleep less than 8 hours each night.		
③ The number of emails a person sends is not related to that person's income.		
④ Income is not related to money spent on a mobile phone.		
⑤ The number of languages spoken by a person is not related to a person's nationality.		

Rephrased hypotheses
①
②
③
④
⑤

2.3 Are the following scientific hypotheses falsifiable (= can be proven false) and testable (= can be tested)? Explain your answers. Rewrite the hypotheses that are not falsifiable and testable.

Scientific hypotheses	Your judgment
① There is no correlation between age and the number of female television presenters on the BBC.	
② Ethnic minorities are under-represented on film and television in China.	
③ If the number of hours a person listens to the radio is increased, then that person's music taste will be better.	
④ If a person is exposed to television advertisements for coffee, then that person will consume more coffee than a person not exposed to such advertisements.	
⑤ The way that a person receives news (social media, print media, radio, or television) is not related to age.	
⑥ A person who does not watch television as a child will be more intelligent.	

2.4 Choose one of the hypotheses in Task 2.2 and write aims and objectives for the project. The aims of a project are its ultimate goals and the objectives are the steps you will take to achieve the aims of the research. Use the following

checklist to ensure your objectives are clearly defined.

The hypothesis	
The aims	
The objectives	

CHECKLIST: Defining objectives clearly
① **Specific.** Is the objective precise and detailed?
② **Measurable.** Will you know when the objective is completed?
③ **Achievable.** Is it possible to complete the objective?
④ **Realistic.** Are you able to complete the objective with the limited time and resources available?
⑤ **Time-constrained.** Is there a specific time by which the objective must be completed?

READING

Mini-lecture ❷

Reading a thesis for information

This mini-lecture covers:

- understanding responsive reading
- identifying literature gaps
- synthesizing evidence

STUDY TIP

Plagiarism is a serious issue in academic English, and it is a mistake that students often make when conducting research. If you are taking notes of a text, make sure that you place in quotations any words that are directly copied. Rephrasing the quote in your own words is a good way to consolidate your understanding, but remember that it is still necessary to reference the source of your information. If you find it difficult to put your thoughts into complete sentences, begin by brainstorming or simply writing key words and phrases. Notes do not need to be in perfect English, as long as you are able to understand their meaning.

TASK 1 Identifying literature gaps

1.1 Mobile phone sensing is a relatively new topic that requires further academic research. Not only are modern mobile phones used for communication, they are also embedded with many sensors that are able to measure a person's behavior, activity and environment, such as a GPS, digital compass, microphone, camera, accelerometer, gyroscope and barometer. Below are extracts from several academic articles discussing mobile phone sensing. Read the extracts and write down the literature gaps identified by the authors that require further research.

Text	The literature gap
Text 1	
Text 2	
Text 3	

TEXT 1

Most examples of community sensing only become useful once they have a large number of people participating; for example, tracking the spread of disease across a city, the migration patterns of birds, congestion patterns across city roads [5], or a noise map of a city [24]. These applications represent large-scale data collection, analysis, and sharing for the good of the community. To achieve scale implicitly requires the cooperation of strangers who will not trust each other. This increases the need for community sensing systems with strong privacy protection and low commitment levels from users.

SOURCE: Lane, N. D., Miluzzo, E., Lu, H., Peebles, D., Choudhury, T. & Campbell, A. T. (2010). A survey of mobile phone sensing. *IEEE Communications Magazine*, 48 (9): 40–150.

Glossary

congestion (n.)
拥塞

TEXT 2

Even though they possess much more computing, bandwidth, and energy resources than mote-class sensors, mobile devices nevertheless face resource limitations. Resource constraints in traditional sensor networks have been well studied. However, MCS applications introduce new aspects in this regard. First, the set of devices that are collecting sensor data are highly dynamic in availability and capabilities. Due to this highly dynamic nature, modeling and predicting the energy, bandwidth requirements to accomplish a particular task is harder than traditional sensor networks. Second, when there are a large number of available devices with diverse sensing capabilities, identifying and scheduling sensing and communication tasks among them under resource constraints is more complex.

SOURCE: Ganti, R. K., Ye, F. & Lei, H. (2011). Mobile crowdsensing: Current state and future challenges. *IEEE Communications Magazine*, 49 (11): 32–39.

Glossary

bandwidth (n.)
带宽

mote (n.)
微粒

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