

THINKER'S GUIDE LIBRARY

思想者指南系列丛书

HOW TO IMPROVE  
STUDENT LEARNING:  
30 PRACTICAL IDEAS



如何提升学生的学习能力

(美) Richard Paul (美) Linda Elder 著

外语教学与研究出版社  
FOREIGN LANGUAGE TEACHING AND RESEARCH PRESS

THINKER'S GUIDE LIBRARY

思想者指南系列丛书

HOW TO IMPROVE  
STUDENT LEARNING:  
30 PRACTICAL IDEAS

如何提升学生的学习能力

(美) Richard Paul (美) Linda Elder 著

外语教学与研究出版社

FOREIGN LANGUAGE TEACHING AND RESEARCH PRESS

北京 BEIJING

京权图字：01-2016-3326

© Foundation for Critical Thinking, 2006

### 图书在版编目(CIP)数据

如何提升学生的学习能力：英文 / (美) 保罗 (Paul, R.), (美) 埃尔德 (Elder, L.) 著. — 北京：外语教学与研究出版社，2016.4  
(思想者指南系列丛书)  
ISBN 978-7-5135-7467-9

I. ①如… II. ①保… ②埃… III. ①学习方法—研究—英文 IV. ①G791

中国版本图书馆CIP数据核字(2016)第097131号

|      |   |
|------|---|
| 出版人  | 蔡剑峰   |
| 项目负责 | 任 佼   |
| 责任编辑 | 任 佼   |
| 封面设计 | 孙莉明   |
| 出版发行 | 外语教学与研究出版社  |
| 社 址  | 北京市西三环北路19号 (100089)                                    |
| 网 址  | <a href="http://www.fltrp.com">http://www.fltrp.com</a> |
| 印 刷  | 北京联兴盛业印刷股份有限公司  |
| 开 本  | 850×1168 1/32   |
| 印 张  | 2   |
| 版 次  | 2016年5月第1版 2016年5月第1次印刷                                 |
| 书 号  | ISBN 978-7-5135-7467-9                                  |
| 定 价  | 9.90 元  |

购书咨询：(010) 88819926 电子邮箱：club@fltrp.com

外研书店：<https://waiyants.tmall.com>

凡印刷、装订质量问题，请联系我社印制部

联系电话：(010) 61207896 电子邮箱：zhijian@fltrp.com

凡侵权、盗版书籍线索，请联系我社法律事务部

举报电话：(010) 88817519 电子邮箱：banquan@fltrp.com

法律顾问：立方律师事务所 刘旭东律师

中咨律师事务所 殷 斌律师

物料号：274670001

## 序 言

思辨能力或者批判性思维由两个维度组成，在情感态度层面包括勤学好问、相信理性、尊重事实、谨慎判断、公正评价、敏于探究、持之以恒地追求真理等一系列思维品质或心理倾向；在认知层面包括对证据、概念、方法、标准、背景等要素进行阐述、分析、评价、推理与解释的一系列技能。

思辨能力的重要性应该是不言而喻的。两千多年前的中国古代典籍《礼记·中庸》曰：“博学之，审问之，慎思之，明辨之，笃行之。”古希腊哲人苏格拉底说：“未经审视的人生不值得一过。”可以说，文明的诞生正是人类自觉运用思辨能力，不断适应并改造自然环境的结果。如果说游牧时代、农业时代以及现代早期，人类思辨能力虽然并不完善，也远未普及，但通过科学技术以及人文知识的不断积累创新，推动人类文明阔步前进，已经显示出不可抑制的巨大能量，那么，进入信息时代、知识经济时代和全球化时代，思辨能力对于人类文明整体可持续发展以及对于每一个体的生存和发展，其重要性将史无前例地彰显。

我们已进入一个加速变化、普遍联系和日益复杂的时代。随着交通技术和信息技术日新月异的发展，不同国家和文化空前紧密地联系在一起。这在促进合作的同时，导致了更多的冲突；人类所掌握的技术力量与日俱增，在不断提高物质生活质量的同时，也极大地破坏了我们赖以生存的自然环境；工业化、城市化和信息化的不断延伸，全方位扩大了人的自由空间，同时却削弱了维系社会秩序和稳定的价值体系与行为准则。这一切变化对人类的思辨能力和应变能力都提出了前所未有的要求。正如本套丛书作者理查德·保罗（Richard Paul）和琳达·埃尔德（Linda Elder）所创办的思辨研究中

心的“使命”所指出的，“我们身处其中的这个世界要求我们不断重新学习，习惯性重新思考我们的决定，周期性重新评价我们的工作和生活方式。简言之，我们面临一个全新的世界，在这个新世界，大脑掌控自己并经常进行自我分析的能力将日益决定我们工作的质量、生活的质量乃至我们的生存本身。”

遗憾的是，面临时代巨变对人类思辨能力提出的新挑战，我们的教育和社会都尚未做好充分准备。从小学到大学，在很大程度上我们的教育依然围绕知识的搬运而展开，学校周而复始的考试不断强化学生对标准答案的追求而不是对问题复杂性和探索过程的关注，全社会也尚未形成鼓励独立思辨与开拓创新的氛围。

我们知道，人类大脑并不具备天然遗传的思辨能力。事实上，在自然状态下，人们往往倾向于以自我为中心或随波逐流，容易被偏见左右，固守陈见，急于判断，为利益或情感所左右。因此，思辨能力需要通过后天的学习和训练得以提高，思辨能力培养也因此应该成为教育的不懈使命。

哈佛大学以培养学生“乐于发现和思辨”为根本追求；剑桥大学也把“鼓励怀疑精神”奉为宗旨。美国学者彼得·法乔恩（Peter Facione）一言以蔽之：“教育，不折不扣，就是学会思考。”

和任何其他技能的学习一样，学会思考也是有规律可循的。首先，学习者应该了解思辨的基本特点和理论框架。根据理查德·保罗和琳达·埃尔德的研究，所有的推理都有一个目的，都试图澄清或解决问题，都基于假设，都从某一视角展开，都基于数据、信息和证据，都通过概念和观念进行表达，都通过推理或阐释得出结论并对数据赋予意义，都会产生影响或后果。分析一个推理或论述的质量或有效性，意味着按照思辨的标准进行检验，这个标准由10个维度构成：清晰性、准确性、精确性、相关性、深刻性、宽广性、逻辑性、完整性、重要性、公正性。一个拥有思辨能力的人具备八

大品质，包括：诚实、谦虚、相信理性、坚忍不拔、公正、勇气、同理心、独立思考。

其次，学习者应该掌握具体的思辨方法。如：如何阐释和理解文本信息与观点？如何解析文本结构？如何评价论述的有效性？如何把已有理论和方法运用于新的场景？如何收集和鉴别信息和证据？如何论证说理？如何识别逻辑谬误？如何提问？如何对自己的思维进行反思和矫正？等等等等。

最后，思辨能力的提高必须经过系统的训练。思辨能力的发展是一个从低级思维向高级思维发展的过程，必须运用思辨的标准一以贯之地训练思辨的各要素，在各门课程的学习中练习思辨，在实际工作中使用思辨，在日常生活中体验思辨，最终使良好的思维习惯成为第二本能。

“思想者指南丛书”旨在为教师教授思辨方法、学生学习思辨技能和社会大众提高思辨能力提供最为简明和最为实用的操作指南。该套丛书直接从西方最具影响力的思辨能力研究和培训机构（The Foundation for Critical Thinking）原版引进，共21册，包括“基础篇”：《批判性思维术语手册》、《批判性思维概念与方法手册》、《大脑的奥秘》、《批判性思维与创造性思维》、《什么是批判性思维》、《什么是分析性思维》；“大众篇”：《识别逻辑谬误》、《思维的标准》、《如何提问》、《像苏格拉底一样提问》、《什么是伦理推理》、《什么是工科推理》、《什么是科学思维》；“教学篇”：《透视教育时尚》、《思辨能力评价标准》、《思辨阅读与写作测评》、《如何促进主动学习与合作学习》、《如何提升学生的学习能力》、《如何通过思辨学好一门学科》、《如何进行思辨性阅读》、《如何进行思辨性写作》。

由理查德·保罗和琳达·埃尔德两位思辨能力研究领域的全球顶级大师领衔研发的“思想者指南丛书”，享誉北美乃至全球，销售数百万册，被美国中小学、高等学校乃至公司和政府部门普遍用于

教学、培训和人才选拔。该套丛书具有如下特点：其一，语言简洁明快，具有一般英文水平的读者都能阅读；其二，内容生动易懂，运用大量的具体例子解释思辨的理论和方法；其三，针对性和操作性极强，教师可以从“教学篇”子系列中获取指导教学改革的思辨教学策略与方法，学生也可从“教学篇”子系列中找到提高不同学科学习能力的思辨技巧；一般社会人士可以通过“大众篇”子系列掌握思辨的通用技巧，提高在社会场景中分析问题和解决问题的能力；各类读者都可以通过“基础篇”子系列掌握思维的基本规律和思辨的基本理论。

总之，思辨能力的高下将决定一个人学业的优劣、事业的成败乃至一个民族的兴衰。在此意义上，我向全国中小学教师、高等学校教师和学生以及社会大众郑重推荐“思想者指南丛书”。相信该套丛书的普及阅读和学习运用，必将有利于促进教育改革，提高人才培养质量，提升大众思辨能力，为创新型国家建设和社会文明进步作出深远的贡献。

孙有中

2016年春于北京外国语大学

# Contents

|   |    |
|---|----|
| Introduction.....   | 1  |
| <b>Recommended Design Features</b>  |    |
| Idea #1: Design instruction so that students engage in routine practice in internalizing and applying the concepts they are learning (and in evaluating their understanding of each)..... | 2  |
| Idea #2: Teach students how to assess their reading. ....   | 4  |
| Idea #3: Teach students how to assess their writing.....  | 5  |
| Idea #4: Teach students how to assess their speaking.....   | 7  |
| Idea #5: Teach students how to assess their listening. ....   | 9  |
| Idea #6: Design tests with the improvements of student thinking in mind. ....   | 10 |
| Idea #7: Make the course “work-intensive” for the students, but not for you. ....   | 12 |
| Idea #8: Use engaged lecture.....   | 13 |
| Idea #9: Require an intellectual journal (when it is relevant to your class).....   | 14 |
| <b>Orientation (first few days)</b>   |    |
| Idea #10: Give students a thorough orientation to the course. ....  | 15 |
| Idea #11: Develop a syllabus which highlights your expectations for the students. ....  | 17 |
| Idea #12: Give students grade profiles ....   | 25 |
| Idea #13: Use a “student understandings” form. ....   | 29 |
| Idea #14: Explain to the students, when orienting them to the class, what will happen on a typical class day (and why).....   | 31 |
| Idea #15: Explain the key concepts of the course explicitly during the first couple of class meetings. ....   | 32 |



|           |  |    |
|-----------|--|----|
| Idea #16: | Discuss class time as a time in which the students will PRACTICE thinking (within the content) using the fundamental concepts and principles of the field..... | 33 |
| Idea #17: | Make the point that the content is a SYSTEM of interconnected ideas .....  | 34 |
| Idea #18: | Think of yourself as a coach .....   | 35 |
| Idea #19: | Discuss the textbook as the thinking of the author. ....   | 37 |

### Daily Emphasis

|           |   |    |
|-----------|---|----|
| Idea #20: | Encourage students to think—quite explicitly—about their thinking .....   | 38 |
| Idea #21: | Encourage students to think of content as a form of thinking .....  | 39 |
| Idea #22: | Relate content whenever possible to issues, problems, and practical situations in the lives of the students. .... | 40 |
| Idea #23: | Target common student disabilities using specific strategies that take them into account.....                     | 41 |
| Idea #24: | Use tactics that encourage active learning.....   | 43 |
| Idea #25: | Routinely ask questions that probe student understanding of the content. ....                                     | 44 |
| Idea #26: | Model skilled thinking for your students.....   | 46 |
| Idea #27: | Cultivate important intellectual traits in instruction.....   | 49 |
| Idea #28: | Bring intellectual standards into daily use. ....   | 50 |
| Idea #29: | Have students role play ideas other than their own. ....  | 51 |
| Idea #30: | Systematically question students using a Socratic approach. ....  | 53 |
| Epilogue: | Summarize the ideas above in brief to make the whole more intelligible .....                                      | 55 |

## Introduction

When students think within the content of our courses, they take ownership of the most basic principles and concepts within the subjects we teach. The instructional ideas in this guide are premised in this understanding. Most of our suggestions represent possible teaching strategies. They are based on a vision of instruction implied by critical thinking and an analysis of the weaknesses typically found in most traditional didactic lecture/quiz/test formats of instruction. We begin with two premises:

- that to learn a subject well, students must master the thinking that defines that subject, and
- that we, in turn, as their instructors, must design activities and assignments that require students to think actively within the concepts and principles of the subject.

Students should *master* fundamental concepts and principles before they attempt to learn more advanced concepts. If class time is focused on helping students perform well on these foundational activities, we feel confident that the goals of most instruction will be achieved.

It is up to you, the instructor, to decide which of these ideas you will test in the classroom. Only you can decide how to teach your students. Our goal is not to dictate to you, but to provide you with possible strategies with which to experiment. The specific suggestions we recommend represent methods and strategies we have developed and tested with our students. Judge for yourself their plausibility. Test them for their practicality. Those that work (i.e., improve instruction), keep; those that do not work, abandon or re-design.

The suggestions overlap each other and make most sense when taken together, as an interrelated network. Often one suggestion is made intelligible in the light of two or three others. So if one is not clear to you, read on. The strength of each of them, in re-enforcing each other, will then become increasingly clear.

## Recommended Design Features

### Idea # 1:

**Design instruction so that students engage in routine practice in internalizing and applying the concepts they are learning (and in evaluating their understanding of each).**

For students to learn any new concept well they must first internalize the concept, then apply the concept to a problem or issue so that they come to see the value of understanding the concept. At the same time, they need to evaluate how well they are internalizing and applying the concepts they are learning.

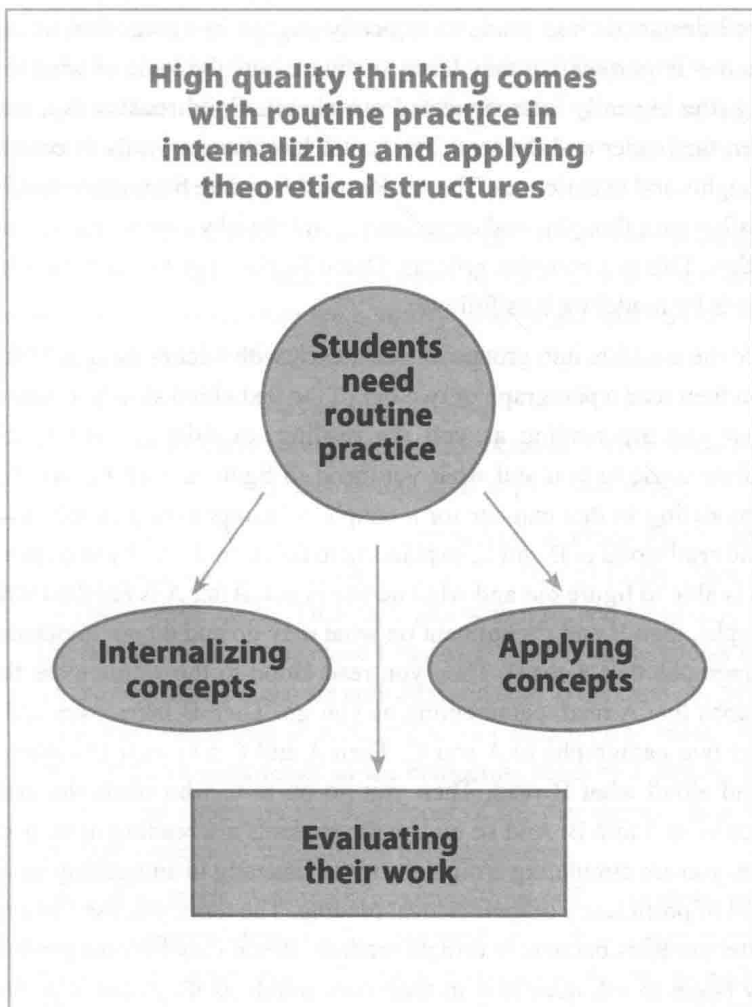
If students are to acquire understandings and skills, we need to provide many opportunities for them to

1. internalize the key concepts in the subject, and to
2. apply those concepts to problems and issues (in their lives or in their course-work).

It is only when students apply what they are learning to actual situations or problems that they come to see the value in what they are learning. And only when they see the value in learning the content will they be internally motivated to do so.

At the same time students are internalizing concepts and applying them in a meaningful way, they need practice in evaluating their work. Self-assessment is an integral part of educated thinking; it would be unintelligible to say of a person that he is thinking in an educated manner, but is not skilled in evaluating his thinking. In the same way, it would be unintelligible to say of a student that he is learning a subject well but does not know how to evaluate his learning.

**High quality thinking comes  
with routine practice in  
internalizing and applying  
theoretical structures**



## Idea # 2:

### Teach students how to assess their reading.

In a well-designed class, students typically engage in a great deal of reading. Hence, it is important that they learn to “figure out” the logic of what they are reading (the logically interconnected meanings). Good reading is a dialogue between the reader and the text. The writer has chosen words to convey his/her thoughts and experiences. The reader must translate from those words back into his/her own thoughts and experiences, and thereby capture the meaning of the author. This is a complex process. One effective way to teach students this process is by modeling it as follows:

Place the students into groups of three, each with a letter assigned (A, B, or C). You then read a paragraph or two out of the text aloud slowly, commenting on what you are reading as you are reading, explaining what is making immediate sense to you and what you need to figure out by further reading. After modeling in this manner for a couple of paragraphs, you ask A to take over and read aloud to B and C, explaining to them, sentence by sentence, what he/she is able to figure out and what he/she is not. After A is finished with two paragraphs, then B and C comment on what they do and do not understand (in the paragraphs that A read). Then you read aloud to the whole class the two paragraphs that A read, commenting as you go. Then B takes over and reads the next two paragraphs to A and C. Then A and C add their thoughts. Then you read aloud what B read. Then you go on to C who reads the next two paragraphs to A and B. And so on. As the students are reading in their groups of three, you are circulating around the room listening in and getting an idea of the level of proficiency of their critical reading. The more you use this process, the better students become at critical reading. When they become proficient at it, they begin to ask questions in their own minds as they read, clarifying as they read, questioning what they do not understand.

See also the thinker’s guide to *How to Read a Paragraph* (The Art of Close Reading).

**Idea # 3:****Teach students how to assess their writing.**

Good thinking is thinking that (effectively) assesses itself. As a critical thinker, I do not simply state the problem; I assess the clarity of my own statement. I do not simply gather information; I check it for its relevance and significance. I do not simply form an interpretation; I check to make sure my interpretation has adequate evidentiary support.

Because of the importance of self-assessment to critical thinking, it is important to bring it into the structural design of the course and not just leave it to random or chance use. Here are a variety of strategies that can be used for fostering self-assessment through peer-assessment:

**Assessing Writing**

When students are required to bring written papers to class, the activities below can be used as strategies for fostering high quality peer-assessment:

1. **First Strategy.** Working in groups of four, students choose the best paper (using standards of clarity, logic, etc. as well as any other criteria you have given them). Then they join with a second group and choose the best paper of the two (one from each group). These papers (chosen by the 8-person groups) are collected and read to the class as a whole. A class-wide discussion is held, under your direction, to make clear the strengths and weaknesses of the competing remaining papers, leading to the class voting on the best paper of the day (again, always using explicit intellectual standards in the assessment).
2. **Second Strategy.** Working in groups of three or four, students write out their recommendations for improvement on three or four papers (from students not in the group). The written recommendations go back to the original writers who do a revised draft for the next class. Using this method every student receives written feedback on their papers from a “team” of critics.
3. **Third Strategy.** Working in groups of three or four, students take turns reading their papers aloud slowly and discussing the extent to which

they have or have not fulfilled the performance criteria relevant to the paper.

4. **Fourth Strategy.** One student's paper is read aloud slowly to the class while the instructor leads a class-wide discussion on how the paper might be improved. This discussion serves as a model of what is expected in the assessment process. Then the students work in groups of two or three to try to come up with recommendations for improvement for the students in their group (based on the model established by the instructor).

See also the thinker's guide to *How to Write a Paragraph: The Art of Substantive Writing*.

**Idea # 4:****Teach students how to assess their speaking.**

In a well-designed class, students often engage in oral communication. They articulate what they are learning: explaining, giving examples, posing problems, interpreting information, tracing assumptions, etc... They learn to assess what they are saying, becoming aware of when they are being vague, when they need an example, when their explanations are inadequate, etc... Here are three general strategies you can use to teach students to assess their speaking abilities.

1. **First Strategy.** *Students teaching students.* One of the best ways to learn is to try to teach someone else. If we have trouble explaining something, it is often because we are not clear about what we are explaining.
2. **Second Strategy.** *Group Problem Solving.* By putting students in a group and giving them a problem or issue to work on together, their mutual articulation and exchanges will often help them to think better. They often help correct each other, and so learn to “correct” themselves. Make sure that they are routinely applying intellectual standards to their thinking as they discuss issues.
3. **Third Strategy.** *Oral test on basic vocabulary.* One complex tactic that aids student learning is the oral test. Students are given a vocabulary list. They spend time studying the key concepts for the course. They are then put into groups of twos or threes and are asked to take turns explaining the concepts to each other. They are encouraged to assess each other’s explanations. Wander about the class listening in and choose two students who seem prepared for the oral exam. Stop the class and announce that the oral test is going to begin and that you have chosen “X” and “Y” to be tested first. After you test these two students (and they pass), announce to the class that X and Y have passed and that they are now “certified” to test others. However, anyone “certified” by a student tester must be “spot-tested” by you on one item. If any such student fails your spot test, the person who certified them is “de-certified” (and must repeat the exam). Everyone who passes becomes a certifier and gets paired with a student who has not taken the test. By this method, you only test the first two students. For the rest of the process you direct “traffic” and spot-check those



who are “certified” by a peer. During this assessment the tester should be looking for a beginning understanding of the concepts, and the ability to give examples of the concept. Since the students who pass become “certifiers” or “tutors” and are assigned to assess other students (or tutor them), everyone gets multiple experiences explaining, and hearing explanations of, the basic vocabulary. We give a vocabulary list to the students on the first day of class so they know exactly which concepts they will be expected to explain during the oral exam. We give this exam during the first few weeks of the class so students learn the most basic vocabulary early in the course, vocabulary that is then used on a daily basis in class. You might want to modify this exam by giving parts of it during or after each chapter (of the textbook).