はしがき（序文）

本書は、大学における英語教育で扱うべき英語に対する筆者達の信念に基づいて作成されたものです。その信念とは、「大学における英語教育で扱うべき英語は、中学・高校までの一般目的の英語（English for General Purposes）ではなく、特定目的の英語（English for Specific Purposes）のうちの、学術目的の英語（English for Academic Purposes）であるべきである。共通教育の段階では一般学術目的の英語（English for General Academic Purposes）に焦点を当て、専門教育以降で特定学術目的の英語（English for Specific Academic Purposes）に焦点を移すべきである」というものです。

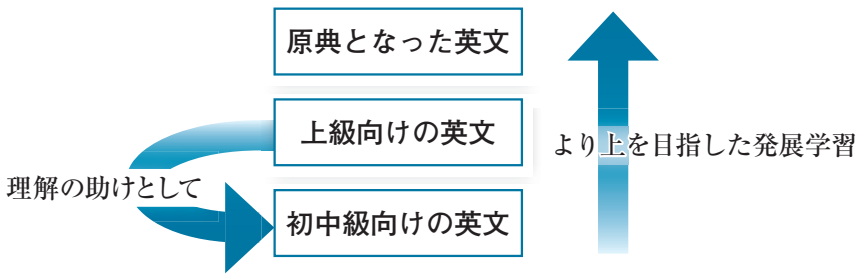
執筆に際しては、(i) 読解を重視し、リーディング・ストラテジー（reading strategy）を習得必須スキルの一つとして位置づける；(ii) これまでの研究で得られた、リスニング訓練がリーディング能力に転移するという知見や、シャドーイングがリスニング力、復唱力、記憶スパン、発音速度、語彙力などの向上に有効であるという知見を活かし、音声にも重点を置く；(iii) 基本的な語彙力や文法力が充分とは言えない学習者を考慮し、基礎的な部分からの学習の徹底を図るが、学術目的の英語という観点から学習内容の取捨選択を行うという、3つの点を意識しました。

第1部「解説編」では、文章を効果的に読むための重要なスキルであるリーディング・ストラテジーとごく基本的な文法について、日本語による解説がなされています。

第2部「実践編」は、専門に関わらず興味を持てるような学術的テーマについての英文、およびそれに関する設問からなっています。本書に掲載された英文は、信頼できる学術雑誌や学術記事、研究者が一般向けに執筆した書籍の内容に基づいて書き下ろしたものです。学習者向けに書いたものなので、省略せざるを得ない部分も多々あります。より深く内容を知りたい、より本格的な英文を読みたいという向上心を持った学習者が原典に当たれるように、各章の最後に英文の元になった文献の一覧を掲載しました。

原典を掲載したのは、学習者の便宜のためだけではありません。巷に溢れるリーディング教材の英文には、残念ながら、内容が疑わしいものも少なからず見受けられます。学習者向けに端折ったため十分意を尽くした書き方ができなかった場合もあるでしょうが、通常、出典が明記されていないため、学習者（あるいは教授者）はそれを確認することができません。出典を明記することで、本書の英文が信頼できる情報源に基づくものであることを示しました。

また本書では同じ話題について、上級向け（Advanced Level）と初中級向け（Elementary/Intermediate Level）の2種類の英文が用意されています。上級向けの英文が手に負えないような場合、理解の助けとして初中級向けの英文を参考にすることができます。逆に、初中級向けの英文が物足りないと感じる場合には、上級向けの英文に目を通して発展的な学習をすることが可能です。



本書の執筆に際しては、中部大学全学英語教育科のメンバーにお世話になりました。中でも青木由香里先生、今村洋美先生、西村智先生、野田恵剛先生、柳朋宏先生、矢野矢容衣先生、山田伸明先生、和田珠実先生には、本書の全てに目を通し、内容について綿密に検討していただきました。音声ファイルの作成にあたっては、メディア教育センターの村上和彦先生と鳴海留美子様に全面的にご協力いただきました。女性の音声の収録には、エイミー・ストッツ先生（アメリカ英語）とマリア・ゴデブスカ様（イギリス英語）に協力していただきました。また、金星堂編集部には、本書の編集に際し、大変お世話になりました。ここに厚くお礼申し上げます。

著者一同

※ 本書の根底に流れる理念については、大学における英語教育のあり方について考察した論文「大学英語教育に関する基本方針について—専門教育機関としての大学における英語教育の在り方を巡って—」（大門正幸他（2010）『中部大学教育研究』No. 10, pp. 23-28）で詳しく述べられています。

http://www.chubu.ac.jp/organization/centers/university_education/original_page/publication/chubu_university_educational_research/2010/documents/04.pdf

Discoveries: Strategies for Academic Reading
Table of Contents

Chapter 1

Playing Games to Manage Pain

Pre-reading Questions

1. What kinds of online games are popular with you or people you know?

2. Have you ever lost track of time while doing an activity you enjoy?

Reading Passages

Advanced Level

CD 1-01 ～ CD 1-03

Playing Games to Manage Pain

1 Online games are extremely popular these days among people of all ages, men and women. Perhaps you play one yourself, logging in to a fantasy world where you can explore, fight monsters, and gain experience in a virtual world. If you have ever played this kind of game, you might have noticed that it is easy to lose track of time or to forget the world around you. You might even have been scolded for it! This is generally seen as a bad habit, something detrimental, to be avoided. But did you know that virtual-reality games like this have a practical application in medicine?

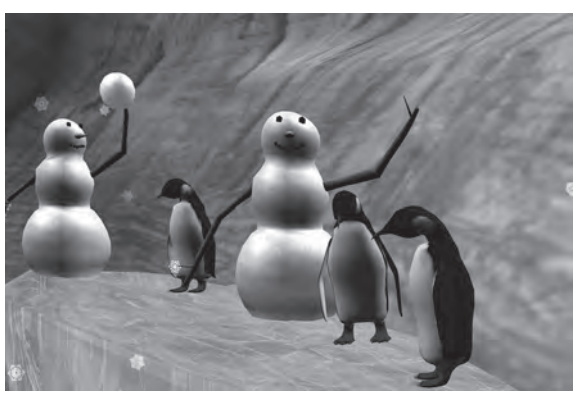
2 University of Washington scientist Hunter G. Hoffman has been exploring the positive aspects of this phenomenon. He and his colleagues have created a virtual-reality game specifically to be played by burn victims in hospitals as they go through their extremely painful treatments.

3 Hoffman and his colleagues have discovered a number of important points that make their virtual-reality game effective in helping patients ignore pain. Most importantly, the game is a fully three-dimensional environment. Rather than just watching a game on an ordinary flat screen, the players wear stereoscopic goggles to experience the game's world in three dimensions. They found that playing traditional two-dimensional games didn't have much of an effect on the degree of pain the patients felt, but the immersion provided by the illusion of three dimensions reduced their experience of pain by as much as half. In fact, they found that the quality of the illusion had a direct effect on the amount of pain subjects reported feeling — those using a high-quality video headset, immersive sound effects, and realistic head tracking reported feeling much less pain than those using lower-quality video

with no sound.

4 Based on their research, Hoffman and his colleagues created a game called SnowWorld, which features an environment specifically designed to help burn victims. In their game, the player travels down an icy river and throws snowballs at penguins and snowmen. The combination of cool colors, such as blue and white, and the icy environment was extremely effective at helping the victims of burns ignore the pain of their treatment.

5 The scientists verified their results in two ways. First, they asked test subjects to simply report how much pain they felt with and without the virtual-reality game. The results of these tests showed that participants felt less pain, but to check these results Hoffman went one step further. They gave the test subjects brain scans when they were experiencing pain, again both with and without the game. They saw clearly that the parts of the brain that experience pain were much less active when the patients were immersed in the virtual-reality experience.



Elementary/Intermediate Level

CD 1-04 ～ CD 1-06

Playing Games to Manage Pain

1 Do you play any online games? Have you ever been scolded for losing track of time, or forgetting the real world while you were playing? It's true that playing games too much is something to be avoided, but some scientists have been studying positive uses of games similar to these familiar ones. University of Washington scientist Hunter G. Hoffman and his colleagues have found that games like this can be used to help people ignore pain. They have created a game to help the victims of terrible burns as they go through their painful treatments.

2 During their research, they found some important points about the use of games to help patients ignore pain. To be effective, the game must be a fully three-dimensional environment. Playing a game on an ordinary flat screen, as we usually do, is not enough — these games are most effective if the patient plays using special goggles that give the illusion of being inside the game world. As a matter of fact, Hoffman found that the better the quality of the illusion, the better the game was at helping patients ignore pain. Subjects who used low-quality equipment felt much more pain than those who used better equipment.

3 The game Hoffman created was designed especially to help patients suffering from burns. It is called SnowWorld, and in this game, the player travels down an icy river, throwing snowballs at penguins and snowmen. The combination of cool colors like blue and white and the icy environment was very effective at helping the victims of burns ignore the pain of their treatment.

4 The scientists used two methods to check their research. First, they asked test subjects to tell them how much pain they felt with and without the game. The results of these tests showed that the participants felt less pain with the game, but to check the results Hoffman went one step further. Second, the scientists gave the patients brain scans when they were experiencing pain, both with and without

30 the game. These scans clearly showed that the parts of the brain that experience pain were much less active when the patients were using the virtual-reality game.

Comprehension Questions

CheckLink

A. Read the following statements and choose "T" for true or "F" for false.

1. Hunter G. Hoffman and his colleagues created a game to help hospital patients stay entertained between treatments. **T/F**
2. Players of the game have to use special equipment. **T/F**
3. The game is designed to help patients who have broken bones. **T/F**
4. The researchers know the game helps patients only because the patients told them how well it worked. **T/F**

B. Choose the best answer for each question.

CheckLink

1. The most important factor in the effectiveness of the treatment is ____.
   a. how fun the game is
   b. the quality of the illusion
   c. the colors and environments in the game
   d. how much time the patients played

2. Playing the game on a two-dimensional screen ____.
   a. is less effective than playing with goggles
   b. is more effective than playing with goggles
   c. is just as effective as playing with goggles
   d. is not effective at all

3. The game helps victims of burns by ____.
   a. giving them medicine when they succeed
   b. showing them cool colors and situations
   c. using funny animals
   d. playing realistic sounds

4. The scientists verified that the game worked by ____.
   a. observing how much pain the patients seemed to be in
   b. playing the game themselves
   c. asking people who were in no pain to play
   d. talking to the patients and giving them brain scans

C. Answer the following questions.

1. What is the primary purpose of the game that Hoffman and his colleagues created?

_____

2. Could most people play this game on their home computer? Explain.

_____

3. Briefly describe what players do in the game.

_____

4. How did the scientists verify their results?

_____

Discussion Questions

1. Why do you think the treatment works better when the virtual environment is more believable?
2. What other "serious" uses of computer games have you heard of?

References

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