



日本人大学生を対象とした オンライン型英語ライティング教材の開発

(研究課題番号 14580220)

平成 14 ～ 15 年度科学研究費補助金
(基盤研究 (C) (2))

研究成果報告書

平成 16 年 4 月

研究代表者 ラウアー・ジョセフ (広島大学情報メディア教育研究センター助教授)

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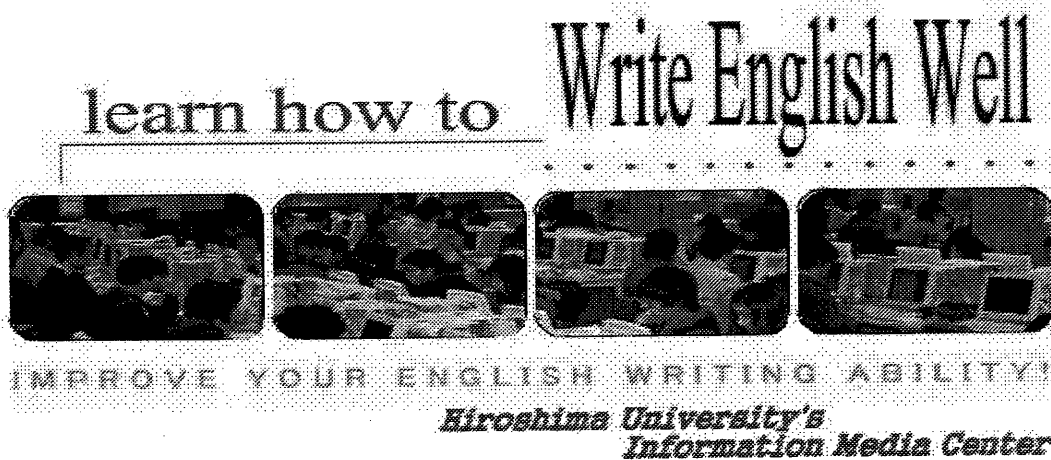
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[Skip Movie]

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研究発表

・ 学会誌等

Lauer, J. (2003). Creating an On-line Writing Course. 『広島外国語教育研究』 6.
(広島大学情報メディア教育研究センター) 53-70.

Lauer, J. (2004). How Computers are Improving English Education in Japan. 『広島
外国語教育研究』 7. (広島大学情報メディア教育研究センター) 25-38.

岩崎克己. (2003). 広島大学バーチャルユニバーシティ：オンラインドイツ語講
座の構築 その2. 『広島外国語教育研究』 6. (広島大学情報メディア教育
研究センター) 91-101.

岩崎克己／吉田光演. (2004): ライティング支援用ドイツ語オンライン辞書の開
発. 『広島外国語教育研究』 7. (広島大学情報メディア教育研究センター)
25-38.

岩崎克己. (2004). オンライン型ドイツ語作文支援環境の構築. 『広島外国語教
育研究』 7. (広島大学情報メディア教育研究センター) 13-24.

・ 口頭発表

Lauer, Joseph: 自己評価報告 at 広島大学情報メディア教育研究センター2003.2.
於 広島大学

Iwasaki, Katsumi: “A Virtual University Project for Autonomous German Learning”
JALTCALL 2002.5. (於 広島女学院大学)

岩崎克己：「広島大学バーチャルユニバーシティ外国語学習講座について」第50回中国・四国地区大学教養教育研究会 外国語（初修）分科会．2002.5.（於広島大学）

岩崎克己：「バーチャルユニバーシティ：外国語授業支援のためのオンライン外国語学習教材の開発」第2回広島大学バーチャル・ユニバーシティ・フォーラム．2003.3.（於 広島大学）

岩崎克己：「広島大学バーチャルユニバーシティ『オンラインドイツ語講座』の構築」日本独文学会 2003 年度春期研究発表会 ポスター・セッション 2003.5.（於 武蔵大学）

岩崎克己：「新しいメディアを利用したドイツ語学習—CALL、その可能性と限界—」シンポジウム：『ドイツ語教師トレーニングプログラム ドイツ語教員養成—研修会—外国語としてのドイツ語教育』：日本独文学会 2003 年度秋期研究発表会 (Neue Medien & CALL -Einsatzmöglichkeiten auf dem Prüfstand: Von Beruf DeutschlehrerIn Ausbildung - Weiterbildung - Ein erfolgreicher Unterricht:) 2003.10.（於 東北大学）

・ オンラインでアクセスするためのサイト

<http://flare.media.hiroshima-u.ac.jp/english/writing/movie.html>

<http://flare.media.hiroshima-u.ac.jp/german/writing/paragraphs/intro.cgi>

研究成果

はじめに

21世紀を迎え、インターネットが世界的な規模で普及するに伴い、社会の様々な分野において e-mail を利用した外国語でのコミュニケーションの機会が増大した。それにより、従来、口答コミュニケーション能力の背後に隠れていた、ライティングを通じたコミュニケーションの能力の重要性が新たな脚光を浴びている。

コンピュータを利用した外国語のライティング指導は、それが提供するオンライン辞書やスペルチェックなどの付随する補助機能の有用性にとどまらず、学習者自身が自分の書いた作文を客観的に見通せるようになるだけでなく、コピー&ペースト等の機能を駆使して、全体構成の組み替えを様々に試せるなどの理由から、従来型の紙と鉛筆を使った指導よりも良い結果が得られることがわかってきた。したがって、どこからでもアクセスできる高品質の外国語ライティング学習用ソフトウェアの開発は、今日の社会的な情報環境の変化からだけでなく、こうしたメディア自体の特性からしても、その重要性は増している。本研究は、こうした要請に応じておこなわれたものである。

この2年間の研究成果を簡単にまとめると以下のようなになる。まず、計画初年度である平成14年度には英語ライティング能力の向上を目的としたオンラインでの学習教材を作成した。作成した教材は初級・中級・上級レベルに区分し、学習者が各自のレベルに応じて学習できるように工夫した。例えば初級では基本的な文法について説明しているほか、接続詞の使用法、文章やパラグラフの構成の仕方についてアドバイスした。中級ではフォーマルなビジネスレ

ター、履歴書や留学願書など実用的な英文の書き方について説明した。上級ではエッセーや研究論文等、学術的な英文を書く際の注意点について解説した。

計画完成年度である平成 15 年には前年に作成した学習教材に改良を加え、内容も拡張した。また、FLASH MX を用いてユニークなフロントページを作成するとともに、様々なタイプの文法問題例 (TOEIC, TOEFL 式の選択式問題、穴埋め問題、マッチング問題など) を豊富に盛り込んだ。さらに、指示に従って英文を書いていくと、構成のはっきりした的確なエッセーが完成される、いわゆるガイドド・パラグラフ・ライティングを加えた。中級レベルでは e-mail でよく使用される約 100 の表現を紹介するとともに、これらの表現を用いて書かれた実際の e-mail 例も紹介した。これにより、学習者はこれらの表現が、いつ、どのように使われるのかについて、理解をより深めることができる。上級レベルには様々な分野から出版された 6 つの論文 (著者及び出版者の許可済) を掲載した。これにより、中級レベルの教材と同様、学習者は、紹介された表現をクリックすることで、実際の論文における各表現の使われ方を学ぶことができるようにした。 (詳しくは <http://flare.media.hiroshima-u.ac.jp/english/writing/movie.html> を参照)。

なお、本研究はもともと英語ライティング教材の開発を中心にしてお進めたが、そこで開発されたオンライン型ガイドド・パラグラフ・ライティングのコンセプトは、日本の高等教育機関における英語以外の言語教育においても有効であり、ドイツ語などの他言語のライティングにも対応できるようシステムを拡張し移植する研究も付随的に行った。

第1章：オンライン型英語ライティング教材の開発

広島大学では、平成9年度より、技能別英語を導入し、4技能（リスニング・スピーキング・ライティング・リーディング）の各々の養成に重点を置いた授業を展開している。本研究の目的は、この5年間における技能別英語ライティング授業での教育実践で得られたデータを基に、日本人の大学生を対象とした英語ライティング用学習ソフトウェアを開発し、オンライン上で配信することであった。なお、この配信は、広島大学バーチャル・ユニバーシティ外国語講座（以下、VUと略す）の枠組みの中で行った。

本研究において開発を目指したソフトウェアは、学習者の学カレベルと実践的な用途に合わせ、以下の3つのレベルと9つのモジュールから成っている。ライティングという実践的な観点から文法の弱点を整理しなおすとともに、実践的なライティングの枠組みを与えることで、文章やパラグラフの構成原理における日米の着眼点の相違、日本人学習者に固有の誤りや弱点とその効果的な指導方法などを効果的に組み込もうとした点が独創的であった。なお、開発教材の大まかな構成は以下の通りである。

基本編

- 1) 文レベルでの基礎的な文法
- 2) 英語における適切な段落の持つべき特徴
- 3) 文と段落をつなぐ接続詞の実践的な使用法
- 4) オンライン辞書・コンコーダンス等の効果的

な利用法

中級編（目的別ライティング）

- 1) 非公式の手紙や e-mail の書き方
- 2) 履歴書の書き方
- 3) 就職のための応募書類の記入法や
"cover letter"の技法
- 4) 留学申請書の記入

上級編（アカデミック・ライティング）


- 1) TOEFL 等の試験における小作文の書き方
- 2) 学術的な研究論文の書き方

On-line English Writing Materials for Japanese Young Adults

by
Joe Lauer

Institute for Foreign Language Research and Education
Hiroshima University

learn how to **Write English Well**



IMPROVE YOUR ENGLISH WRITING ABILITY!
*Hiroshima University's
Information Media Center*

[\[Start Movie \]](#)

Hiroshima University's English Writing Help Center

On-line English Writing Materials for Japanese Adults

by Joe Lauer, Katsumi Iwasaki and Hiroaki Maeda
Hiroshima University's Information Media Center

初級 : Basic Level

- 1) 良い英文を書くために重要な文法項目 (Writing Good English Sentences: Important Grammar)
- 2) 質の良い英文パラグラフの書き方 (Writing Basic High-Quality English Paragraphs)
- 3) 短いオピニオン・エッセイを書こう (Writing a 1-Paragraph Opinion Essay)
- 4) 広大生のための英語Eメール交換広場 (Hiroshima University's English E-Mail Exchange! (Bulletin Board))
- 5) 広大生のための英語でチャット (Hiroshima University's English Chat: A Fun Place to Be!)



中級 (特定の目的を持っている人に) : Intermediate Level (When you have specific tasks)

- 1) インフォーマルな手紙やEメールの書き方 (Writing Informal Letters and E-mail)
- 2) フォーマルな文章を書く上で必要な様々な決まりごと (Important Style Rules for All Formal Writing Tasks)
- 3) ビジネスレターの書き方 (Writing Business Letters)
- 4) 履歴書の書き方 (Writing Resumes/ Curriculum Vitae)
- 5) 就職のための書類の書き方 (Applying for a Job)
- 6) 留学願書の書き方 (Applying to Study Abroad)
- 7) ショートストーリーを書こう : 創作能力を向上させよう (Write a Short Story: Improve Your Fiction Skills!)
- 8) 作文時の気後れを乗り越えるには (Overcoming Writer's Block)

上級 (アカデミック・ライティング) : Advanced Level (Academic Writing)

- 1) Writing Opinion Essays (A Typical TOEFL Essay)
- 2) Writing Thesis and Research Papers
- 3) Create Your Own Web Page

- 4) About This Site 5) Other Writing Internet Sites 6) Give Us Feedback!

Copyright 2003: This course was made possible by a grant from the Japanese Ministry of Education.

「大学生を対象としたオンライン型英語ライティング教材の開発平成14年度
科学研究費補助金 基盤(C)(2)一般」

第 2 章： 良い英文を書くために重要な文法項目

(Writing Good English Sentences: Important Grammar)

Grammar Introduction

“Thou has most traitorously corrupted the youth of the realm in erecting a grammar school… It will be proved to thy face that thou hast men about thee that usually talk of a noun and a verb, and such abominable words as no Christian ear can endure to hear.”

From The Second Part of King Henry VI

William Shakespeare

おまえがグラマースクールを設立することで、この国の若者を墮落させてしまったことは、甚だしい国家への裏切りである。いつも名詞や動詞など、キリストを信じる者の耳が聞くに堪えないおぞましい言葉を話題にする男たちが、おまえの周りに集まるということが、おまえにも分かるだろう。

『ヘンリー六世 第二部 四幕七場』 反乱軍の無学の頭目、ジャック・ケイドの台詞です。

Translation by Hirohide Nakamura

Part 1: A/ The/ or Nothing についての説明と練習問題

A / The / or Nothing?

a と the の正しい使い方を学んで筆記につよくなりましょう！

“A” は次のような場合に使われます：

1) 名詞を数える場合

man mountain

2) 談話の中で何かを述べる時のはじめ

I have a dog. Her name is...

3) 単数形はある1種類の物や人を指して述べる時にも使われます。

A butterfly is an amazing insect.

4) 速さ、価格や頻度をあらわすとき

100 miles an hour 5 dollars a pound two times a night

“A” は複数形の名詞や固有名詞には絶対に使われません。

“The” は次のような場合につかわれます：

1) 特定の物や人を指すとき

I see the teacher standing over there.

the Saijo train station the American government

2) 談話の中ですでにでてきたものを指すとき

The dog likes... (*上記(2)の例文のつづき)

- 3) 単数形はある1種類の物や人を指して述べるときにも使われます

(*上記(3)と同じです。)

the butterfly is an amazing insect.

- 4) ただひとつしか存在しえないものを指すとき

the most beautiful woman the sun

- 5) 海、湖、森、諸島や山脈など固有の名前 (単数の山はこれにあたりません)

the Mediterranean Sea the Black Forest

the Philippines the Himalayan Mountains

- 6) 複数の地域の集合でできている国の名前

the Netherlands the United Kingdom

メモ: ほとんどの国名では冠詞を必要としません。(下記の<A/Theを必要としない場合>参照)

A や THE がつかない場合:

- 1) 数えられない名詞を指すとき

jewelry water sunshine

water people money

- 2) 総括的にものごとを指す場合

Cheese is made from milk.

Lions eat meat.

- 3) 複数ときまっているものを指す場合

People

- 4) 惑星、島、湖、山、国、大陸、街、や公園などの特定のものの名前を指す

とき

Jupiter	Fiji	Island	Lake Superior
Mt. Fuji	Canada		Antarctica
Yellowstone National Park			Milwaukee

5) 次のような頻繁にでてくる名詞を指すとき:

prison	school	college	church
bed	court	jail	sea
home			

例文: He went to bed. She'll be in court. I attend college.

しかしこれらの名詞は冠詞を必要とする場合もあります。

Example: I bought a bed. (数えることのできる名詞)

I see the church. (特定のものを指すときの名詞)

練習問題

問題 1: 文中で正しくない部分の記号を丸で囲みなさい

1) The happiness is a quality that comes from within a person.

A B C D

2) The night before last, there was the cat outside the window.

A B C D

3) Before leaving the office, turn off computer and lock the cabinets.

A B C D

4) Issues concerning the distribution of income are among most important.

A B C D

5) The reason I don't want a car is that I don't have a money.

A B C D

6) Humans have been fascinated with the Mars for thousands of years.

A B C D

7) Honduras, located next to Mexico, is a democracy, headed by

A B C

popularly elected president.

D

8) By time of the Hernando De Soto expedition of 1541, Arkansas was

A B C

inhabited by a variety of tribes.

D

9) Indian Ocean territory of Christmas Island yearly exports 1.2 metric

A B C

tons of phosphate to Australia and some other Asian countries.

D

10) Plato pondered why, given a lot of power, person would choose *not*

A

B

to use that power for evil purposes.

C

D

Explanation of the Correct Answers:

解説

- 1) A “happiness”は数えられない名詞なので冠詞は必要ない。
- 2) C “a cat”. 数えられる名詞が会話や文章に初めてでてきたときは、“the”ではなく“a”を使う。
- 3) C “the computer”. 特定の物や人を指すときは“the”を用いる。
- 4) D “among the most important”. 慣用的表現である。
- 5) D “money”は数えられない名詞なので冠詞は必要ない。
- 6) C 惑星の名前には冠詞は必要ない。
- 7) D “a popularly elected president”. 数えられる名詞が一般的な事柄を意味するときは“a”を使う。
- 8) A “by the time”. 慣用的表現である。
- 9) A “the Indian Ocean”. 固有名詞には“the”を使う。
- 10) B “a person”. 一般的な“ヒト”を意味しているため“a”を用いる。

問題 2: the, a, an,のいずれか正しいものを下線部に書き入れなさい。

(どれも入らない場合は「-- 」と書きなさい.)

- 1) There was _____ terrible noise coming from my next-door apartment.
- 2) _____ University of Wisconsin has about 45,000 students.

- 3) Cebu is an island in _____ Philippines, 500 kms south of Manilla.
- 4) I'd really like to go to the top of _____ Mt. Fuji some day.
- 5) _____ table that's in your kitchen is nice. Where did you get it?
- 6) _____ J-pop's mega-selling band, Smap, came out with a full-length double-CD album.
- 7) Mitsuo Ogasawara found Tatsuhiko Kubo with an inviting free kick, but the tall striker's downward header slammed sharply into the ground and bounced over _____ bar.
- 8) I hate _____ telephone.
- 9) Hikaru Utada, who first became _____ star at the age of 16, had a husky voice that was unusual for her age.
- 10) He went up to a policewoman and asked a question, but _____ officer didn't understand what he said.

Explanation of the Correct Answers:

解説

- 1) a 数えられる名詞（単数形）が文に最初に登場した場合は”a”を使う。キーワード; “There is/ was...”
- 2) The 慣用的表現。常に”the University of ...”と表現される。
- 3) the 複数の共同体から構成されている国や”s”で終わる国名には”the”をつける。例; the Netherlands, the United States, the United Kingdom
- 4) 無冠詞 特定の山（単数形）の名前に冠詞は用いない。
- 5) The 特定の部屋に存在する特定のテーブルなので”the”を用いる。
- 6) 無冠詞 名詞が所有格の名詞により修飾されている場合、冠詞は用いない。
また、”J-pop”は”Jazz”や”Soccer”と同様に無冠詞で使用される単語であ

る。

- 7) **the** 特定の**"bar"**を指しているので**"the"**を用いる。“**the top of the goalpost**” = 競技場で攻撃側が狙う唯一のもの
- 8) 一般的なものを指し、数えられる名詞の単数形であるが、科学的な発明品に対しては**"a"**よりも**"the"**を用いるのが一般的である。例; “**A telephone is good.**”では1つの電話という印象を受けるが、**"The telephone is good."**では電話一般を指す印象を受ける。
- 9) **a** 数えられる名詞の単数形が文章中に初めて登場するときは**"a"**を使う。
- 10) 会話や文章中で既に登場した名詞を指すときは**"the"**を用いる。注意;
policewoman = officer

問題 3: 正しい答えを選びなさい。

1) Badagry, Nigeria was _____ slave ports on the African West Coast.

- | | |
|------------|---------------------|
| a) first | c) one of the first |
| b) a first | d) one of first |

2) I had never heard _____, yet thorough, explanation of any kind of theory in psychology class.

- | | |
|--------------------------|---------------------------|
| a) a such understandable | c) such understandable |
| b) such a understandable | d) such an understandable |

3) Just after World War II, thirteen out of the 14 leaders of East Germany's Communist Party had _____ education.

- a) an only elementary
- b) only an elementary
- c) the only elementary
- d) only elementary

4) This is a list of wetlands of _____.

- a) international importance
- b) an international importance
- c) the international importance
- d) an important international

5) My daughter, Lissa, _____, tries to keep the family's moral values strong.

- a) to play the violin
- b) an excellent violinist
- c) is an excellent violinist
- d) the excellent violinist who

6) It's freezing in here. Please shut _____.

- a) window
- b) windows
- c) a window
- d) the window

7) I've got _____ now. Would you happen to have some aspirin?

- a) headache
- b) headaches
- c) a headache
- d) the headache

8) We need _____ for tomorrow. Can you pick some up at the store?

- a) rice
- b) many rice
- c) a rice
- d) bit of rice

9) _____ students in the class passed the exam.

- a) Most of c) None
 b) Most of the d) None of

10) The newspaper headline read "Man Killed _____."

- a) in Mountain c) on Mountains
 b) in a Mountain d) on Mountain

Explanation of the Correct Answers:

解説

- 1) c 「one + of + the + (first, best, etc.) + 複数形の名詞」
熟語である。
- 2) d 「such + a + 形容詞 + 名詞」 この文章では形容詞
が"u"で始まっているため"an"を用いる。
- 3) b これが正しい語順である。また、"education"は一般的
な意味で使われているため"c"は誤りである。
- 4) a 「of + 形容詞 + 抽象名詞」例; "of great value", "of
little interest"
- 5) b "b"が同格句中で使用される正しい語句を用いている。
注) "an excellent violinist"の前の"who is..."が省略されている。
- 6) d 部屋の特定の窓を指しているため、"the"が必要である。
注) "b"の windows も"the windows"であれば正しい。
- 7) c "to have a headache" 慣用的表現である。また、この
文章ではある特定時 ("now")の話であるため、"b"は適切ではない。
- 8) a "rice"は数えられない名詞であるため冠詞は必要な
い。"many"は数えられる名詞に対して用いる。"c"は"a bit of rice"

とすれば正しい。

- 9) b 熟語である。注) 日本人はよく間違っ**て**”a”を選択する。”a”は”Most students...”とすれば正しい。”d”は”None of the students...”とするべきである。
- 10) d “on”が正しい前置詞である。厳密には”on a mountain”であるが、新聞等の見出しにおいて冠詞はしばしば省略される。

Part 2: 形容詞と副詞

この章の内容：

- 1) 形容詞と副詞の説明
- 2) 練習問題

形容詞と副詞

この章の構成

- 1) 形容詞、副詞とは何か
- 2) 形容詞と副詞を使った文の例
- 3) よくある間違い
- 4) 練習問題

形容詞、副詞とは何か

- 1) 形容詞は名詞と代名詞にかかります。*What kind of...? or What is ... like?* という問いの答えにあたります。これらは通常、かかる単語のすぐ前につきます。

例： Sachiko is a *beautiful* woman.

(What kind of woman is Sachiko? 答え： She is beautiful.)

George has a *fluffy* kitten.

(What is the kitten like? 答え： It is fluffy.)

2) 副詞は動詞、形容詞、もしくは他の副詞にかかります。How...?という問いの答えにあたるものです。副詞はかかる単語の前後にしばしば（必ずというわけではありません）-lyで終わる形であらわれます。

例： Doreen cooks *well*.

(How does she cook? 答え： Well.)

Dennis *skillfully* played the piano.

(How did he play? 答え Skillfully.)

Pon-chan is a *pretty big* cat. (*Pretty* は形容詞 *big* にかかります。)

(How big was the cat? 答え Pretty big.)

He finished the work *rather* quickly.

(*Rather* は形容詞 *quickly* にかかります)

(How quickly did he play? 答え Rather quickly.)

例文： 形容詞 副詞

good	well
bad	badly
careful	carefully
interesting	interestingly
sorry	---
bored	---

よくある間違い：

Note that if a word follows a “special verb,” and that word modifies the noun before the verb, then that word must be an adjective. These “special verbs” are:

次のような特殊な動詞につづく単語には注意してください。動詞の前にある名詞を修飾する単語は形容詞になります。

be	appear	feel	become	seem	look
remain	sound	smell	stay	taste	

例文： She was angry.

 Your hair smells good.

 They stayed calm during the earthquake.

したがって、もしあなたが間違っ副詞を使い “Your hair smells well,” というような文をつくった場合、この文の意味は「髪は鼻をもっていて、におうことが上手である」というおかしい意味になってしまいます！

5) Bad or badly?

自分は少し体調が悪いということを言いたい場合、形容詞を使います。

I feel bad.

(*I feel badly.*とはかかないこと。この文の場合、あなたは感覚が鈍いという意味になってしまいます。)

動詞ではなく形容詞を修飾することを覚えておいてください。

6) Good or well?

同様に *good* も形容詞ですから *I feel good* とあらわします。

しかし “I do good” とか or “I see good” というように書いてはいけません。

なぜなら“do”と“see”は上記の特殊な動詞ではないからです。ですから動詞を修飾する場合は副詞 *well* を使います。

問題 1: 空欄を埋めなさい。(辞書を使ってもよい。)

Note: Sometimes there are no corresponding forms.

	形容詞	副詞
1)	magnificent	_____
2)	_____	seriously
3)	good	_____
4)	_____	neatly
5)	angry	_____
6)	_____	daily
7)	big	_____
8)	_____	always
9)	fast	_____
10)	_____	early

Answers:

1) magnificently

2) serious

3) well

4) neat

5) angrily

6) daily (Adjective = *a daily newspaper*. Adverb = *published daily*)

7) Nothing.

8) Nothing.

9) quickly, rapidly, etc.

10) early (Adjective = *an early class* Adverb = *arrive early*)

問題 2: 複数の文を合わせて1つの文に書き直さない。Be as concise as possible.

1) She ran.

She did it quickly.

2) Scott got a job after graduation.

The job was exciting.

3) Rie speaks Spanish.

She is a good Spanish speaker.

She speaks French.

She is a bad French speaker.

4) Darwin learned how to categorize animals.

He did it accurately.

5) Columbus recruited sailors.

Some of them were experienced, and some of them were inexperienced.

Answers: (Other answers are sometimes possible.)

- 1) She ran quickly.
- 2) Scott got an exciting job after graduation.
- 3) Rie speaks Spanish well, but she is a bad (or *poor*) French speaker.
- 4) Darwin learned how to accurately categorize animals.
(or) Darwin accurately learned how to categorize animals.
- 5) Columbus recruited (both) experienced and inexperienced sailors.

Part 3: 動名詞

この章の内容：

- a) 動名詞についての説明
- b) 練習問題

動名詞

1)特定の動詞のすぐ後に他の動詞がでてきた場合、二つ目の動詞は-ing形（動名詞）にならなければなりません。その特定の動詞には次のようなものが含まれます。

admit	avoid	consider	delay	deny
dislike	enjoy	finish	imagine	involve
mind	miss	postpone	practice	regret
risk	stop	suggest		

例：“They delayed starting the meeting until she came.”

2) 前置詞を伴った動詞の熟語にも動名詞がつづきます。

例

give up put off keep on involved in good at
happy about used for left without apologized for insisted on
forgive (someone) for congratulate (someone) on
stop (someone) from accuse (someone) of

例文 : “Bob kept on trying hard.”

 “Lissa forgave him for being late.”

3) 特定の動詞のすぐ後に他の動詞がでてきた場合、二つ目の動詞は不定形 - to にならなければなりません。その特定の動詞には次のようなものが含まれます。

afford agree appear arrange attempt dare
decide fail forget hope learn manage
offer plan pretend promise refuse seem
tend

例文 “Jill failed to hand in the assignment.”

4) さらにある特定の動詞では ing 形と不定形-to の両方を伴います。

begin continue hate intend like love
prefer start

練習問題：次の文に合う文の続きを下の a)から h)の中から選び、ひとつの文にしなさい。

1) It tends

2) Christopher Columbus risked

3) She admitted

4) I hope

5) There appears

6) The dog

7) They kept on

8) It's hard to stop

a) to become very rich.

b) making noise, even though we asked them to stop.

c) running into terrible stops.

d) smoking once you start.

e) to get cold in Saijo in February.

f) taking the money, so she was arrested.

g) to be very sick.

h) to be water on Mars.

練習問題 2：次の文の中で間違っているパートにまるをつけなさい。

1) Recent theoretical and statistical studies based on dynamic models

A

tend prove that overly broad patents not only reduce competition but

B

C

also reduce innovation in the software industry.

D

2) Research shows that engagement in school extracurricular activities is

A

B

linked to decrease rates of early school dropouts in both boys and girls.

C

D

3) Vitamin D regulates the absorption of calcium and phosphorus and

A

B

helps forming tooth and bone.

C

D

4) New Zealand rugby coach Dave Rennie, who heads Wellington NPC,

A

says that he is relieved being able to keep his job for two more seasons.

B

C

D

5) Jones said he had fallen across Ross and had got blood on his clothes,

A

B

but he denied to take part in the violence.

C

D

Part 4: if 文

この章の内容:

- 1) if を使った文についての説明
- 2) 練習問題

If

if を使う文には次の3つの形があります:

1) 未来—

例 A-- If I have money, I'll buy a car next week.

(二つに分けられた文が前後逆になる場合もあります。両方の形を使えるように練習しましょう。)

例 B-- I won't eat if I'm not hungry.

2) 現在—(仮定です、事実ではありません。)

例 A-- I don't have money now. If I had money, I would buy a car.

(形式的に正しい英語では be の動詞は were になります。しかし日常会話では was がしばしば使われます。)

例 B-- I am hungry, so I'm eating now. I would not eat if I were not hungry.

3) 過去—(仮定です、事実ではありません。)

例 A-- I didn't have money yesterday. If I had had money, I would have bought a car.

例 B-- I was hungry, so I ate yesterday. I would not have eaten if I had not

been hungry.

練習問題 (For each question) If you made a mistake, go here.

問題 1: 動詞を正しい形に直しなさい。

- 1) I can't understand you. If I (can) understand you, I (be able) to answer you.
- 2) He didn't do the work. He (not be) fired if he (do) the work.
- 3) She studies every day. She (not be able) to pass the final test if she (not study).
- 4) Women are discriminated against in Japan. If women (not be) discriminated against, they (have) better jobs than they have now.
- 5) I (meet) her at the airport tomorrow if she (tell) me the arrival time.
- 6) The company says it (move) to Mexico if the Canadian government (stiffen) pollution laws.
- 7) If you (come) into my garden last night, my dog (bite) you.
- 8) If a little more snow (fall), skiing (be) very good tomorrow.
- 9) The prime minister (do) something this instant to improve the economy if he (know) what to do.
- 10) It was a tragedy. The victims (able to see) how to get out of the building if the lights (work) properly.

Answers

- 1) could/ would be able

- 2) would not have been/ had done
- 3) would not be able to/ did not study
- 4) were not/ would have
- 5) will meet/ tells
- 6) will move/ stiffens
- 7) had come/ would have bitten
- 8) falls/ will be
- 9) would do/ knew
- 10) would have been able to see/ had worked

問題 2: 正しい答えを選びなさい。

1) If electricity _____ plants grow, perhaps the electric potential across the soil helps the flow of ions in some way.

- a) will help c) does help
- b) helped d) would help

2) Generally, no class is waived unless students _____ mastery of material.

- a) will show c) show
- b) showed d) would show

3) It _____ nice if there were some simple solution, but there isn't.

- a) will be c) is
- b) was d) would be

4) If an advanced civilization _____ a time machine many millennia from now, they would be able to venture back to our time.

- a) will design c) designs
- b) designed d) would design

5) It's not likely that they'll become famous _____ in selling more CDs.

- a) if they succeed c) unless they succeed
- b) when they succeed d) unless they don't succeed

6) Harumi Koyama probably _____ a Japanese record in the 5,000 meter race if she had not trained so hard.

- a) would begin c) would have set
- b) would not begin d) would not have set

7) In this coed volleyball league, if a team has only five players to start a game, three must be women, _____ otherwise agreed by the other team's captain.

- a) when c) if
- b) it would d) unless

8) If I _____ to hear Tomohiro Okumura's concert the other day, I probably would not have realized what a good violinist he is.

- a) had gone c) wanted
- b) had not gone d) had wanted

Part 5: 話法の助動詞 (should, might, can, must など)

この章の内容:

7) 法助動詞についての説明

8) 練習問題

法助動詞 (should, might, can, must, etc.)

1 未来、現在、過去形での可能性の表示:

May, *could*, と *might* は半分くらいの確実さで正しいとき (もしくは正しくないとき) の可能性をあらわすときに使われます。

例 1 -- It may snow tomorrow.

例 2 -- She isn't here. She may be sick.

例 3 -- A: Do you think he won? B: I don't know. He could have.

例 4 -- It rained yesterday. He might not have gone.

次の 2 つの言葉は現在形か過去形かの 2 つしかありません。

Must はおおよそ事実がおおよそ正しい (もしくは正しくない) ときの可能性をあらわすときに使われます。

例 1 — She is very intelligent. She must study a lot.

(しかし、おそらく彼は生まれつき頭のよい人だったろう。)

例 2 -- The grass is wet. It must have rained.

(しかし、それはおそらく誰かがグラスに水をかけてしまったのだらう。)

Can't はかなり確実に事実が正しい (もしくは正しくない) ときの可能性をあらわすときに使われます。

例 1 —Sue doesn't speak Japanese. She can't be a Japanese citizen.

(しかし、おそらく彼女は日本人であろう。)

例 2 —I was with him just 5 minutes before the murder occurred. He can't have killed her.

(しかし、おそらく彼は殺したのでであろう。)

2) これらはそれが良いアイデアか悪いアイデアかのどちらかをあらわすときに使います。:

Should, ought to, had better, and be supposed to.

例 1 -- You *shouldn't* smoke so much.

例 2 —She *ought to have* listened better.

メモ: *Ought to* は否定文にはあらわれません。 *Be supposed to* はしばしばあるルールを尊重する(もしくははしない)ときに使われます。*had better*、*have* は厳しく批判するときに使われます。

例 3 —You're *not supposed to* smoke here.

例 4 —He *had better not* have gone out with another girl. (もし彼がそうするならば、私は彼と縁を切るだろう。)

練習問題

問題 1: 正しい動詞の形を選びなさい。

- 1) Satomi failed the driving test. She () studied enough.
- a) must have c) wasn't supposed to have
b) must not have d) ought to
- 2) Ray isn't here yet. He must have () about the appointment.
- a) forgot c) forgetting
b) to forget d) forgotten
- 3) Scott did a terrible job on the project. He () tried harder.
- a) should have c) must have
b) must d) wasn't supposed to have
- 4) You make too many mistakes. You () more careful.
- a) shouldn't be c) ought to be
b) couldn't have been d) might not be
- 5) You are supposed () in the office from 9 to 5.
- a) can stay c) stayed
b) to stay d) staying
- 6) SMAP's Goro Inagaki can sing in English very well. He ()
English.
- a) should like c) must like
b) should have liked d) mustn't have liked

7) By cutting government waste, the economy () better sooner rather than later.

- a) shouldn't get better c) had better have gotten
b) may get d) must have gotten

8) If you had bought a lottery ticket, we () become millionaires.

- a) might have c) must have
b) should have d) were supposed to have

9) You () done the work. Why didn't you?

- a) were supposed to have c) might have
b) must have d) can't have

10) I saw some glass on the floor. You () have broken anything!

- a) 'd better not c) mustn't
b) couldn't d) can't

Answers:

1) b

2) d

3) a

4) c

5) b

6) c

7) b

8) a

9) a

10) a

練習問題 2:あなたの友人にアドバイスをあげると仮定して、次の言葉を使い
文を作りなさい。:

should/ shouldn't/ had better/ ought to

例: Your friend says: "I'm really tired."

You say: You ought to rest.

(or) You shouldn't work so much.

(or) You should take it easy.

a) Your friend says: "I need some money."

You say:

b) Your friend says: "My stomach hurts."

You say:

c) Your friend says: "My boyfriend seems to like another girl."

You say:

d) Your friend says: "English class is really hard."

You say:

e) Your friend says: "My girlfriend is pregnant."

You say:

答えの例:

a) You should get a part-time job.

(or) You shouldn't waste so much money.

b) You had better go to the doctor.

(or) You ought to take some medicine.

(or) You shouldn't have eaten so much.

c) You should talk directly to him about it.

(or) You ought to get rid of him.

(or) You should have dumped him a long time ago.

d) You ought to watch NHK English programs.

(or) You should study with a friend.

e) You shouldn't have done that.

(or) You ought to have been more careful.

(or) You should have an abortion.

(or) You had better get a job so you can take care of the family.

Part 6: 否定を表す

この章の内容:

- 1) 否定の説明
- 2) 練習問題

否定

Barely , scarcely, は「ほとんど全くない、しかし実在はする」ということを意味します。

例 1 : She barely got to the post office on time.

Means she was almost late (it was going to close) but she did get there while it was still open. という文は「彼女は閉店まじかまで遅れたが、なんとか開いているときに着くことができた。」という事を意味します。

例 2 : I scarcely understood what she said.

Means could only understand a little of what she said, but I did understand a bit. という文は「私は彼女のいったことをほとんど理解できなかったが少しは理解することができた。」という事を意味します。

例 3 : He hardly did any work.

という文は「彼は少しだけ仕事をした。」という事を意味します。「彼は一生懸命働いた。」という意味ではありません。

Rarely, seldom と hardly は「ほとんど・・・ない」という意味があります。

例: She hardly ever goes out on dates.

練習問題

問題 1: 次の下線部に入る最も適切な語句を選びなさい。

1) I had _____ dreams last night because I was just too tired!

- a) not
- b) scarcely
- c) none
- d) no

2) MAC users have _____ with PC viruses, 99% of which will not infect a MAC.

- a) problems hardly any
- b) barely any problems
- c) hardly problems
- d) hardly none problems

3) There are differences in politics, religion, race, tastes, child-rearing philosophies, age, height, weight, and the one that we _____ give a thought to, hair color.

- a) barely ever
- b) hardly any
- c) not only
- d) practically scarcely

4) Please keep calm: the Saints are _____ three games into the season.

- a) not only
- b) hardly any
- c) only
- d) barely any

5) Occasionally while running the program, the sound "stutters" or there is _____ sound at all.

- a) no
- b) none
- c) any
- d) not only

6) The energetic Asashoryu _____ trouble defeating his sumo opponent.

- | | |
|-------------------|-----------------|
| a) hardly had any | c) scarcely any |
| b) hard some | d) had bare |

7) Hanshin Tigers left-hander Kei Igawa _____ allows any hits.

- | | |
|-------------|------------------|
| a) not only | c) did not |
| b) none | d) scarcely ever |

8) Ask the teacher, _____ another student.

- | | |
|-----------|---------|
| a) barely | c) none |
| b) not | d) yet |

9) She could _____ comprehend what he said.

- | | |
|-----------|---------|
| a) yet | c) none |
| b) hardly | d) no |

10) _____ none of the work was done.

- | | |
|-------------|---------------|
| a) Any | c) Hardly had |
| b) Scarcely | d) Had hardly |

Answers

1) d

2) b

3) a

- 4) c
- 5) a
- 6) a
- 7) d
- 8) b
- 9) b
- 10) b

Part 7: 前置詞

前置詞

この章の内容:

- 1) 前置詞の使い方についての説明
- 2) 前置詞の一覧
- 3) 練習問題

前置詞の使い方

前置詞を正しく使うことは簡単ではありません。ほとんどの前置詞が違った機能をいくつかもっているからです。例えば、*at* という単語には18通りの違った使い方があります。

また、似たような使い方をされる前置詞もあります。例えば、“*in the morning,*” “*on Sunday mornings*” と “*at night*”などです。

前置詞を学ぶのにもっとも良いのはおそらく、前置詞がどのような単語とともに使われるかを勉強することでしょう。次のリストは生徒がよく混乱する前置

詞の使い方を集めたものです。

前置詞のリスト

これらはよく前置詞として使われる単語と成句です。あなたはこれらがどのようにして使われるかわかりますか？もし、よくわからないのであれば、このプロジェクトを参考にするか、例文のたくさん載っている辞書を調べてみましょう。

about	because of	down	off	toward
above	before	during	on	under
across	behind	for	out	until
after	below	from	out of	up
against	beneath	in	over	upon
along	beside	in spite of	since	with
among	between	into	through	within
around	beyond	like/unlike	throughout	without
as	by	near	till	
at	despite	of	to	

注意: 目的語は動作の対象となるもので、ヒトや物がこれにあたる。

afraid of (名詞または動詞の-ing形)

I'm afraid of snakes.

She's afraid of speaking in front of others.

agree with (目的語)

Jill agreed with Steve.

agree on (提案されたアイデア, または動詞の-ing 形)

They agreed on a plan.

They agreed on doing the work together.

agree to (動詞または名詞)

He has agreed to help us.

He has agreed to the proposal.

angry with/ at (人)

He's angry with me for being late.

angry about/ at (物事)

My mom is angry about what I did.

anxious about = *worried about, fearful of*

There are plenty of adults who are anxious about spiders.

anxious to = *excited about*

I'm anxious to see you tomorrow.

any of

Are any of us really safe?

apologize for または: *sorry for, forgive (ヒト) for*

She apologized for not answering the letter.

arrive at/in [注: *to* は適切ではない]

We arrived at 7 at night, and immediately went to the hotel.

The ship arrived in Osaka yesterday.

ask (任意のヒトや物) for

I'm not done with the paper, yet. I'll ask the teacher for more time.

astonished by または *startled by, shocked by, surprised by*

I was astonished by how much she'd grown.

bad at

I'm bad at math. Can you help me?

because of

My world is a better place because of you.

believe in

I believe in miracles, and dreams that will come true.

borrow (目的語) from

My friend borrowed some money from me.

both of

Both of us are trying to be strong.

bump into または *crash into, drive into, run into*

I often bump into him at the train station.

care about = consider important

We care about our customers.

care for 2つの意味がある: 1) like, love; 2) take care of, look after

I don't care for natto.

We need to care for our parents when they get old.

clever at (行動) または *bad at, good at, etc.*

Miki is clever at solving problems.

congratulate (あるヒト) **on** (成功, 達成)

The Williams team congratulated Damon Hill on gaining the pole position for the Canadian Grand Prix.

crash into

The car crashed into the barrier at 35 mph.

depend on; dependent on; dependence on

Baby, you can depend on me.

University students are still dependent on their parents.

This questionnaire can be used to check the patient's dependence on

nicotine.

しかし *independent of; independence of/ from*

die of

It's hard to work with people dying of cancer.

different from/ than

People are different from each other.

Morocco is different than any other place you've ever been to.

difficulty with (ある物); difficulty in (動名詞)

Senior citizens often experience difficulty with hearing.

I have difficulty in initiating conversations with members of the opposite sex.

disappointed with (あるヒト); disappointed with/about (ある物)

または: *disgusted with/about, pleased with/about*

He was disappointed with himself.

I was disappointed about the ending of the movie.

discussion about/ on/ of または: *to discuss* (ある物) = 前置詞は

必要ない。

There will be a discussion about issues related to software.

disgusted with

または: *disappointed with, pleased with*

I was disgusted with the show. They shouldn't allow that on TV.

divide (ある物) into

You should divide the work into manageable chunks.

dozens of

The company has dozens of branches in this part of the country.

dream of = think of, imagine

If you dream of awakening in paradise, come to Guatemala!

dream about (while asleep)

I used to have dreams about ghosts.

dress in

It's fun to dress in a Roman toga.

drive into または: *bump into, crash into, run into*

The cold wind drove into my face.

each of または: *any of, some of*

Each of us is unique.

effect on または: *influence on*

The drug had an immediate effect on the pain.

either of または: *any, some*

Have either of you seen my glasses?

enough of (代名詞または名詞の所有格)

I've had enough of this job. I quit!

every one of

Every one of the products is high quality.

example of

A squirrel is actually an example of a rodent.

explain (ある物) **to** (あるヒト)

Nobody can explain what happened to Amelia Earhart during her flight across the Pacific.

explanation for/ of

Here is a good explanation of what it is.

a few of

A few of the books have torn covers.

get in(to) / out of (a car, a small boat など)

I just got out of the shower.

get on(to) /off (a bus, train, plane or ship)

About a hundred people got off the train.

half of

Half of your computer memory is not being used.

hundreds of または *dozens of, hundreds of, thousands of, etc.*

The earthquake produced hundreds of victims.

the idea of... (ある物または動名詞)

The idea of the game is to surround your opponent's stones.

The president of the company didn't like the idea of hiring a new worker.

ill with

Lissa is ill with a cold, so she'll be absent today.

impressed with/ by

The head of the division was impressed with this geometric design.

independent of または: *independence of/ from*

The committee is independent of the Department of Justice.

Mexico won its independence from Spain in 1821.

しかし *depend on, dependent on, dependence on*

influence on または: *effect on*

Her wishes had a great influence on his thinking.

insist on... (名詞または動名詞)

She insisted on it.

You should insist on getting more money. If you don't, you'll never get it.

interest in または: *interested in*

Recently I've developed an interest in classical music.

kind to [注意: *with ではない] または: *nice to, polite to, rude to*

Jogging on hard surfaces is anything but kind to the feet.

(a) lack of

to lack (no preposition)

to be lacking in

A lack of jobs has been cited as one of the causes for the rising crime rate.

He lacks imagination.

How do you motivate a student who is lacking in confidence?

laugh at または: *smile at*

The students laugh at him behind his back.

less of

Less of something is sometimes better.

a little of

If a little of the water gets dirty, the whole experiment is ruined.

look at = point one's eyes at

Please look at this diagram.

look after = take care of

You should look after your physical health as well as your mental health.

look for = try to find

I looked for your house, but I couldn't find it.

many of

Many of us have been devoted followers of Seiji Ozawa.

get married to または: marriage to

I got married!

Dennis's marriage to Doreen will take place in June.

the matter with

What's the matter with you today?

more of

We don't need any more of your assistance, thanks.

most of

I think she wasted most of the time.

much of

Love wasn't much of a friend of mine.

name (目的語) after/ for

New York's Columbia University was named after Christopher Columbus.

neither of

Neither of the children want (wants) to go to bed.

nice to (ヒト) または: *kind to, polite to, rude to*

You were very nice to me during my stay. Thank you.

none of

None of the suspects has (have) confessed, yet.

participate in または: *take part*

If you would like to participate in the research, please call this number.

pay for

You should pay for it.

pleased with (あるヒト) please with/ about/ at (ある物)

= satisfied

He looked like he was really pleased with his performance.

polite to

Are you always so polite to strangers?

prevent (目的語) from... 動名詞

The army tried to prevent the media from covering the protest.

proof of

Can you show me a verifiable proof of God's existence?

reason for

Did you ask about her reason for leaving the company?

red with (anger, embarrassment など)

He turned blood red with embarrassment.

remind (あるヒト) of (名詞)

Amy reminded him of his mother, so he married her.

responsible for または: responsibility for

We feel responsible for every product we sell.

The terrorist group took responsibility for the attack.

rude to (あるヒト) または: *polite to, kind to, nice to*

How can you be so rude to someone you love?

run into または *bump into, drive into, crash into*

A truck ran into the back of my car.

search for = look for

search [注: 前置詞は必要ない] = look through, look everywhere in/
on

You can search for, and find, anything on the Internet.

The police searched the house for the suspect, but could not find him.

several of

Several of the workers were sick yesterday.

shivering with cold または: *trembling with fear, rage; shaking with
anger*

Trembling with fear, and shivering with cold, the bird was about to die.

shocked at

I am shocked at myself that I didn't see this coming.

shoot at または: *throw at*

The police officer shot at the fleeing man, but missed.

shout at [攻撃的な表現、どなりつける]

shout to =communicate = call to [ヒトに単に呼びかけるときの表現]

The teacher shouted at me today. He was really mad.

We shouted to the people on the other side of the river-- the people who were in North Korea—but there was no response.

skilled at... 動名詞 または: *skillful at, bad at, good at, clever at*

Are you skilled at using a computer?

smile at または: *laugh at*

Liz smiled at them as she rose to her feet.

some of

What are some of your favorite songs?

speak with/ to または: *talk to/with*

Could I speak privately with you for a moment?

succeed in (名詞または動名詞) **success in/ at, (un)successful in/ at**

Hiro succeeded in handing in the assignment on time.

She is very successful at anything she touches.

suffer from

Is it possible to suffer from too much happiness?

surprised at/ by または: *astonished at/ by, shocked at/ by*

I was surprised by most of what I saw.

take part in または: *participate in*

You will be required to take part in a series of meetings.

talk with/ to

She talked with her mother for one hour.

think about/ of (名詞または動名詞)

the thought of (名詞または動名詞)

I can't stop thinking about her.

She is thinking of quitting her job.

Just the thought of centipedes makes me shudder.

throw (目的語) at [攻撃的に投げるときの表現]

throw (目的語) (in)to [ゲームでボールを投げるときなどに使われる表現] または: *shout at/ to*

The soldier threw the grenade into the building.

He threw the ball to second base.

tremble with (rage, fear など) または: *shiver with cold*

The queen again asked the mirror about Snow White, and trembled with rage when she received the same answer as before.

typical of

This painting is typical of the style at that time.

write (to) [注: to は省略できる]

I'll write (to) you soon.

wrong with または: *the matter with*

Something is wrong with the engine.

The above list of words is adapted from: Swan, M. (1980). *Practical English Usage*. Oxford University Press. (Grammar point 485)

練習問題

問題 1: 次の下線部に入る最も適切な語句を選びなさい。

1) Endeavor can stay in orbit until Sunday, but the shuttle has enough rocket fuel _____ only four more landing attempts.

- a) in c) by
b) for d) within

2) Spanish tenor Jose Carreras performed _____ a concert at Cambodia's Angkor Wat, a 12th century temple believed to be the world's largest edifice.

- a) by c) to
b) over d) in

3) Atlanta Falcons' quarterback Michael Vick ran _____ 173 yards in an overtime victory against the Minnesota Vikings.

- a) despite
- b) along
- c) for
- d) through

4) I feel like I'm going to die _____ sadness.

- a) of
- b) at
- c) by
- d) about

5) The first climbers of Mt. Everest had a lot of difficulty _____ carrying the heavy oxygen tanks.

- a) of
- b) by
- c) for
- d) in

6) The boss is disappointed _____ you. She thought you'd do the work better.

- a) for
- b) in
- c) by
- d) of

7) All students want independence _____ their parents.

- a) to
- b) from
- c) by
- d) away

8) She insisted _____ listening to Keisuke Kuwata's music all the time.

- a) for c) by
b) to d) on

9) Japan is lacking _____ exploitable natural resources.

- a) by c) in
b) for d) on

10) I'll look _____ your dog while you're gone on vacation.

- a) by c) after
b) of d) with

Answers:

1) b

2) d

3) c

4) a

5) d

6) b

7) b

8) d

9) c

10) c

II. あなたは怖い話が好きですか次のストーリーはアメリカのお化け屋敷の話

です。これは本当の話です！（ほとんどの怖い話は本当の話ですよ？）正しい前置詞を選んで下線部に入れて下さい。それぞれの前置詞は一度しか使われません。

about	by	in	of	out
at	for	into	onto	to

In New Orleans today, _____ 1140 Royal Street _____ the French Quarter, stands the Lalaurie House. Dr. Louis Lalaurie, his wife, and three daughters moved _____ the three-story mansion in 1832. Madame Lalaurie was beautiful and hosted gorgeous parties. But few people knew how cruel, cold-blooded, and crazy she actually was.

She was cruel _____ the slaves who lived and worked there. The cook was chained to the fireplace in the kitchen. Sometimes slaves disappeared. One day a neighbor saw Madame chasing a little girl while whipping her. She chased the girl _____ the roof, where the girl jumped to her death.

In 1834 a fire broke _____ in the kitchen, possibly set _____ the cook who could not endure the situation anymore. The house was partly destroyed. Firefighters found more than a dozen slaves, male and female, chained in the attic. They were naked. Some were in cages made _____ dogs. There were human body parts scattered around.

People in New Orleans were very angry. A mob gathered outside the house, calling for vengeance. Suddenly a carriage roared away from the house, and the family was never seen again. Where did they go? To neighboring towns? Did they infect those towns, too?

Later, people moved into the house, but they were haunted by strange noises, cries, and groans. Ghosts have been seen walking _____ on balconies and in yards. Today the building is used as apartments, but can the spirits _____

Part 8: 間接話法

この章の内容:

- 1) レポートについての説明
- 2) 練習問題

正式なレポートでは対話文を使ってはいけません！

In contrast to Japanese writing, English essays do NOT usually contain quotes by people.日本の論文とは違い、英語の論文では通常、人の述べた引用文は使いません。引用文の使用はしないように心がけましょう。

例えば、"Will you come?"と書く代わりに
He asked me if I would come.と書きます。

練習問題

問題: これらの文を間接話法に変えなさい。

- 1) "I'm a student," she said.
- 2) "Can you speak French?"
- 3) "I'll do it tomorrow," he said.
- 4) "Could you help me?" she asked.
- 5) "Don't do that," he stated.
- 6) "Please look," she said.
- 7) "I've already done that," she said.
- 8) "She did it yesterday," he said.

Some good answers (others might be possible).

- 1) She said she was a student.
- 2) He asked if I could speak French.
- 3) He said he would do it the next day.
- 4) She asked if I could help her.
- 5) He told me not to do that.
- 6) She asked me to look at it.
- 7) She said she had already done that.
- 8) He said that she had done it the day before.

Part 9: 動詞

この章の内容

1) 動詞

A) 不規則動詞のリスト

B) 動詞の時制

i) 単純現在

ii) 現在進行

iii) 単純称過去

iv) 過去進行

v) 過去完了

vi) 現在完了

vii) 現在完了進行

viii) 未来

ix) 未来進行

x) 未来完了

C) 動詞の練習問題

1) 動詞

A) 不規則動詞のリスト

動 詞 句

單純現在時制	單純過去時制	過去分詞	現在分詞
beat	beat	beaten	beating
begin	began	begun	beginning
bind	bound	bound	binding
bite	bit	bitten	biting
blow	blew	blown	blowing
break	broke	broken	breaking
bring	brought	brought	bringing
build	built	built	building
buy	bought	bought	buying
catch	caught	caught	catching
choose	chose	chosen	choosing
do	did	done	doing
drink	drank	drunk	drinking
drive	drove	driven	driving
eat	ate	eaten	eating
fall	fell	fallen	falling
feel	felt	felt	feeling
find	found	found	finding
fly	flew	flown	flying
forget	forgot	forgotten	forgetting
get	got	gotten	getting
give	gave	given	giving

hear	heard	heard	hearing
hide	hid	hidden	hiding
keep	kept	kept	keeping
know	knew	known	knowing
lead	led	led	leading
leave	left	left	leaving
lose	lost	lost	losing
make	made	made	making
meet	met	met	meeting
pay	paid	paid	paying
ride	rode	ridden	riding
run	ran	run	running
say	said	said	saying
see	saw	seen	seeing
sell	sold	sold	selling
send	sent	sent	sending
sing	sang	sung	singing
sink	sank	sunk	sinking
sit	sat	sat	sitting
speak	spoke	spoken	speaking
spend	spent	spent	spending
stand	stood	stood	standing
steal	stole	stolen	stealing

strive	strove (strived)	striven (strived)	striving
swim	swam	swum	swimming
take	took	taken	taking
teach	taught	taught	teaching
tear	tore	torn	tearing
tell	told	told	telling
think	thought	thought	thinking
throw	threw	thrown	throwing
understand	understood	understood	understanding
wear	wore	worn	wearing

次の動詞は、違う時制を表すのにその形が変わらない。

単純現在時制	単純過去時制	過去分詞	現在分詞
bet	bet	bet	betting
bid	bid	bid	bidding
cost	cost	cost	costing
cut	cut	cut	cutting
fit	fit	fit	fitting
hit	hit	hit	hitting
put	put	put	putting
quit	quit	quit	quitting
read	read	read	reading

shut	shut	shut	shutting
spread	spread	spread	spreading

B) 動詞の時制

B.i) ____

次のような単語はしばしば（いつもかならずというわけではありません）単純現在時制を伴います。:

every day, week, month, etc.,

always,

usually, often,

sometimes,

once in a while,

hardly ever, rarely, almost never,

never

例:

I (we, they) drink coffee every morning.

He (she, it) hardly ever sleeps in the afternoon.

B.ii) 現在進行形 (am/is/are + verb-*ing*) はときどき（かならずいつもというわけではありません）now を伴います。また未来についてあらわすときに使われることもあります。

例:

She is reading a book (now).

He is going to Seattle tomorrow.

B.iii) ____

単純過去 は英語ではよく使われます。しばしば *expressions* とともにあらわれます。例えば: *yesterday, last night, last year, the day before yesterday, three days ago, and the week before last.*

例:

I went to Takehara last Sunday.

The kitten was born six weeks ago.

B.iv) 過去進行形 はしばしば *When* や *While* を使う文のなかにあられます。

(Japanese on p. 53 of TOEFL クリフス)

例:

When the bell rang, all of the students were sitting in their seats.

While living in Kyoto, I often went to Kawaramachi.

B.v) 過去完了形, はあまり使われません。 大体の場合 *by, before,* や *after.* とともにあらわれます。(Japanese on P. 57)

例:

By the time I arrived, he had already left.

She had already eaten before I got home.

After he had started work, he became sick.

B.vi) _____

単純現在完了形 は通常、まだ完了していない過去に行ったことについて使われます。 *for, since, already,* や *yet.* としばしば使われます。

例:

I've been to Tokyo three times. (まだ死んでいません。)

She has studied English for six years.

It's been a long time since I saw her.

We've already seen that movie. We don't want to see it again.

He hasn't finished the work yet.

B.vii) 現在完了進行形 は現在も明らかに続いている事について指します。

しばしば *for* や *since* とともにあらわれます。

例:

She's been sleeping for 10 hours straight.

I've been working there since last March.

B.viii) ___

単純未来 は次の3つの形であらわれます。:

例:

She'll be here tomorrow.

I'm going to play tennis the day after tomorrow.

We move next Wednesday.

B.ix) 未来進行形 は非常に稀な形です。

例:

I'll be helping her tomorrow, so I can't meet you then.

B.x) 未来完了形 もまた稀です。しばしば *by* とともにあらわれます。

I will have finished the project by the time she gets here.

練習問題

問題 1: 単純現在形か現在進行形のどちらかを選びなさい。

- 1) Lissa _____ (hate) to eat liver.
- 2) I _____ (believe) you when you say you didn't steal it.
- 3) George _____ (play) the piano at the moment.
- 4) I _____ (not: have) much money these days.
- 5) He _____ (take) a bath, so he can't come to the phone right now.

Answers

- 1) hates
- 2) believe
- 3) is playing
- 4) don't have
- 5) is taking

問題 2: 単純過去形か過去進行形のどちらかを選びなさい。

- 1) When he was young, Joe _____ (speak) Arabic well.
- 2) When Ray phoned I _____ (work), but I stopped to talk with him.
- 3) Sachiko _____ (climb) a mountain when she suddenly slipped and broke her leg.
- 4) I _____ (own) a car at one time, but I don't now.
- 5) When the firemen broke down my door I _____ (sleep).

Answers

- 1) spoke
- 2) was working
- 3) was climbing
- 4) owned
- 5) was sleeping

問題 3: もっとも正しいと思われる答えを選びなさい。

1) As part of its ongoing effort to improve guest service and offer more diverse menus, Disneyland _____ some of its restaurants and is taking a fresh, new approach with the food served throughout the Park.

- a) redesigns
- b) would redesign
- c) redesigning
- d) has redesigned

2) The Boundary Waters Canoe Area of northern Minnesota _____ a unique place in the heart of the North American continent.

- a) is
- b) are
- c) is being
- d) will have been

3) In the early 1700s, pirates were said _____ vast riches for safekeeping and later retrieval along the coast of South Carolina.

- a) would hide
- b) hid
- c) hiding
- d) to have hid

4) The common house fly can taste _____ its feet and its mouthparts.

- a) used
- b) for use
- c) using
- d) useful

5) Chemists always have _____ to stay ahead of the times.

- a) torn
- b) striven
- c) sunk
- d) worn

6) In Jack London's *The Call of the Wild* (1903), a civilized husky named Buck _____ from its home in California and is forced to do hard work in cold Alaska.

- a) fell
- b) is stolen
- c) is spent
- d) paid

7) Swimming at sea, the chance of drowning is much higher than the probability of _____ by a shark.

- a) eating
- b) having been eaten
- c) having eaten
- d) being eaten

8) In the contest, one winner shall _____.

- a) be caught
- b) catching
- c) be chosen
- d) chose

9) The Kobe earthquake could even _____ in Hiroshima.

- a) being felt
- b) have felt
- c) feel
- d) be felt

10) Finding Nemo, a fun movie about a clownfish, _____ my eyelids open.

- a) kept
- b) was kept
- c) blew
- d) was blown

Answers:

- 1) d
- 2) a
- 3) d
- 4) c
- 5) b
- 6) b
- 7) d
- 8) c
- 9) d
- 10) a

Part 10: 文法ゲーム

文法ゲーム

ルール：次のテーブルの中から問題の課題とマネーを選んでそのクイズに答えて下さい。正解すると自分の選んだコマにあるマネーを獲得します。しかし不正解だと2倍のマネーを失います！テーブルの中にある全ての問題に答えて自分の文法力を試してみましょう。最後に採点できます。それでは **Let's try!!**

注意：高いマネーの問題ほど難しくなっています。

現在のスコアー：

New Zealand	Canada	Scotland
\$10	\$10	\$10
\$20	\$20	\$20
\$30	\$30	\$30
\$40	\$40	\$40
\$50	\$50	\$50
\$60	\$60	\$60

採点：

500点～630点：あなたは英文法の天才です！

400点～499点：このホームページでもっと文法を学びましょう

399点以下：おっとこれはマズイ。がんばりましょう。

New Zealand

\$10— Tom was arrested because he _____ some money.

- a) stealed b) stole

\$20— Takako hardly ever _____ coffee.

- a) drink b) drinks c) drunk

\$30— I just bought _____ new car. It's green and was cheap.

- a) the b) a c) 空白

\$40— I could help you if I _____ time.

- a) have b) had c) had had d) would have

\$50— The accident _____ if you had been more careful.

- a) wouldn't have happened b) wasn't happening
c) wouldn't happen d) might not happen

\$60— I _____ stayed in bed instead of coming to school yesterday.

- a) have b) should have c) might d) might have
e) must not have

Canada

\$10— Lissa had been _____ for one hour, so she was tired.

- a) speaking b) spoken

\$20— We've already _____ that movie.

- a) saw b) been seeing c) seen

\$30— They think _____ Japanese government should lower taxes.

- a) the b) a c) 空白

\$40— Lightening _____ strike me at any time.

- a) may b) is c) would d) must

\$50— Man: Did he do the work? Woman: He _____.

- a) can have b) could have c) might d) must

\$60— She doesn't have much money, so she _____ want to do it.

- a) can b) hardly c) definitely d) hasn't e) may

Scotland

\$10— Ray _____ all his money on Horse 6, and won!

- a) betted b) bet

\$20— Sachiko _____ very happy if she gets a high score on the test.

- a) would be b) will be c) is being

\$30— Have you ever seen _____ Ocean?

- a) the b) an c) 空白

\$40— _____ United Arab Emirates is a country with a lot of oil.

- a) The b) A c) An d) 空白

\$50—If I _____ the answer, I would tell you.

- a) know b) have known c) had known d) knew

\$60— The house is extremely clean, so it _____ vacuumed.

- a) may have been b) might have been c) could have been
d) would have been e) must have been

The following questions belong to the following error type:

Verbs-- New Zealand, \$10; Canada, \$10; Scotland, \$10; New Zealand, \$20; Canada, \$20.

Articles— New Zealand, \$30, Canada, \$30; Scotland, \$30; Scotland, \$40.

If—Scotland, \$20; News Zealand, \$40; New Zealand, \$50; Canada, \$50; Scotland, \$50.

Modals—Canada, \$40; Canada, \$50; New Zealand, \$60; Canada, \$60; Scotland, \$60.

Answers—

New Zealand: \$10 = b; \$20 = b; \$30 = b; \$40 = b; \$50 = a; \$60 = b.

Canada: \$10 = a; \$20 = c; \$30 = a; \$40 = a; \$50 = b; \$60 = e.

Scotland: \$10 = b; \$20 = b; \$30 = a; \$40 = a; \$50 = d; \$60 = e.

Game 2

New York

\$10— When I walked into my kitchen, I noticed that ____ cats had drunk all their water.

1) (nothing)

2) the

\$20— I avoided _____ Mr. Takahashi, because I don't really like him.

1) to meet

2) meeting

3) to have met

\$30— Miki offered _____ me, but I politely refused.

1) help

2) to help

3) helping

\$40— If Hikaru Utada's father had not been a singer and songwriter, she herself _____ one.

1) became

2) should have become

3) would have become

4) might not have become

\$50— Is there anything wrong _____ the plan?

1) on

2) at

3) with

4) for

\$60— We _____ every step to guarantee that the Prime Minister's visit will be a successful one.

1) had taken

2) have taken

3) would take

4) would have taken

5) had been taken

Georgia

\$10— _____ strawberries are my favorite fruits.

1) (nothing)

2) The

\$20— Amy painted the room _____ .

1) beauty

2) beautiful

3) beautifully

\$30— She promised _____ the work, but she didn't.

1) to do

2) doing

3) having done

\$40— She _____ understood what I said, but she was able to do it anyways.

1) was

2) really

3) hard

4) hardly

\$50— If she _____ more interest in me, I would ask her out on a date.

1) shows

2) showed

3) has shown

4) had shown

\$60— This food is typical _____ this part of Africa.

1) at

2) of

3) by

4) to

5) on

Wisconsin

\$10— She is a talented piano player. She plays the piano _____.

1) skillful

2) well

\$20— Hi, Ray! Nice to see you! Let me buy you _____ drink.

1) (nothing)

2) a

3) the

\$30— The work is _____.

1) interest

2) interesting

3) interestingly

\$40— The teacher was angry _____ me for not turning in the paper.

1) to

2) by

3) in

4) with

\$50— I'm constantly astonished _____ Ichiro's hitting ability.

1) at

2) with

3) for

4) by

\$60— When he saw the alien, he trembled _____ fear.

1) by

2) for

3) on

4) about

5) with

Answers:

New York

\$10— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 1

\$20— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 3

\$30— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 3

\$40— (4) If you made a mistake, click [HERE](#) and read more about the grammar. Section 4

\$50— (3) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

\$60— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 9

Georgia

\$10— (1) If you made a mistake, click [HERE](#) and read more about the grammar. Section 1

\$20— (3) If you made a mistake, click [HERE](#) and read more about the grammar. Section 2

\$30— (1) If you made a mistake, click [HERE](#) and read more about the grammar. Section 3

\$40— (4) If you made a mistake, click [HERE](#) and read more about the grammar. Section 6

\$50— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 4

\$60— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

Wisconsin

\$10— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 2

\$20— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 1

\$30— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 2

\$40— (4) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

\$50— (4) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

\$60— (5) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

Game 3

Texas

\$10— What did you eat for _____ lunch?

1) (nothing)

2) the

\$20— She did the work _____, so she was criticized.

- 1) bad
- 2) poor
- 3) badly

\$30— _____ I had gotten off from my work at the factory, I wouldn't have been able to go to the Mr. Children concert.

- 1) If
- 2) Because
- 3) Unless

\$40— When Jill smiled _____ me, a great feeling rushed through me.

- 1) at
- 2) to
- 3) through
- 4) over

\$50— Sue is skilled _____ negotiating.

- 1) with
- 2) for
- 3) by
- 4) at

\$60— He reminds me _____ a boyfriend I used to have.

- 1) for
- 2) in
- 3) of
- 4) at
- 5)(nothing)

California

\$10— _____ dolphin is a mammal, not a fish.

- 1) (nothing)
- 2) The

\$20— *The Last Samurai* _____ so good unless Koyuki had been in it, I think.

- 1) had been
- 2) would have been
- 3) wouldn't have been

\$30— If I _____ the answer, I'd tell you.

- 1) know
- 2) knew
- 3) had known

\$40— She _____ smoked so much. Now look at her discolored teeth.

- 1) shouldn't have
- 2) may not have
- 3) must not have
- 4) must have been

\$50— The John I know is much taller. That _____ him.

- 1) will not be
- 2) should be
- 3) has been
- 4) can't be

\$60— There's no reason _____ doing such sloppy work.

- 1) at
- 2) of
- 3) on
- 4) for
- 5) (nothing)

Utah

\$10— It's _____ nice weather today. Let's go out.

- 1) (nothing)
- 2) a

\$20— Scott got an _____ job in the field of computers.

- 1) excited
- 2) exciting
- 3) excitement

\$30— George is a _____ decision-maker, so he would be a good boss, I think.

- 1) quick
- 2) quickly
- 3) quickest

\$40— Koichi Tanaka wouldn't have won the Nobel Prize in Chemistry unless he _____ day in and day out.

- 1) works
- 2) has worked
- 3) had worked
- 4) should have worked

\$50— The Backstreet Boys succeeded _____ producing another hit.

- 1) on
- 2) of
- 3) for
- 4) in

\$60— The soldiers searched ____ his pockets, but found nothing.

- 1) on
- 2) by
- 3) to
- 4) after
- 5) (nothing)

Answers:

Texas

\$10— (1) If you made a mistake, click [HERE](#) and read more about the grammar. Section 1

\$20— (3) If you made a mistake, click [HERE](#) and read more about the grammar. Section 2

\$30— (3) If you made a mistake, click [HERE](#) and read more about the grammar. Section 4

\$40— (1) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

\$50— (4) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

\$60— (3) If you made a mistake, click [HERE](#) and read more about the

grammar. Section 7

California

\$10— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 1

\$20— (3) If you made a mistake, click [HERE](#) and read more about the grammar. Section 4

\$30— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 4

\$40— (1) If you made a mistake, click [HERE](#) and read more about the grammar. Section 5

\$50— (4) If you made a mistake, click [HERE](#) and read more about the grammar. Section 5

\$60— (4) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

Utah

\$10— (1) If you made a mistake, click [HERE](#) and read more about the grammar. Section 1

\$20— (2) If you made a mistake, click [HERE](#) and read more about the grammar. Section 2

\$30— (1) If you made a mistake, click [HERE](#) and read more about the grammar. Section 2

\$40— (3) If you made a mistake, click [HERE](#) and read more about the grammar. Section 4

\$50— (4) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

\$60— (5) If you made a mistake, click [HERE](#) and read more about the grammar. Section 7

第3章：：初級：質の良い基本的な英語の段落を書こう

英論文の書き方 Writing High-Quality English Paragraphs

この章の内容：

- A) よりよい英論文を書くために
- B) 練習問題

A) よりよい英論文の書き方

上手な英論文を書くのは非常に簡単です。決まりごとは次の2つしかありません。

- 1) 主旨となるもっとも大事な一文を段落の一番はじめに書いてください。
- 2) 初めの一文に続く全ての文は初めの文を支持する、もしくはその理由を与

えるものとしてください。

次の段落は上記の2つの決まりごとをまもって書かれた文章の例です。:

During the past 50 years, black Americans have made remarkable progress. Since 1964, laws have guaranteed equality at work, and government policies have tried to help black people. Today, the salaries of young, well-educated black and white Americans are nearly identical. Two out of three black people belong to the American middle or upper economic classes. Black and white people work together in most companies. The vast majority of white people have neutral or positive feelings toward most black people, and vice versa.

段落の構成に注目してみましょう。まず初めの文ではこの段落の主旨である「近年、黒人における社会的な状況は改善された。」ということ述べています。そしてそれに続く文では「社会的に改善された例」をいくつか挙げています。

しかし、上記の2つの決まりごとには例外もあります。例えば、エッセイやビジネス文書の初めの文はこの決まりごとのようにはなっていないでしょう。またフィクション小説ではこのような決まりごとは全くありません。（他の章を参照してください）しかし、この2つの決まりごとはその他のほとんどの場面で使われますので覚えておいてください。

B) 練習問題

練習 1: それぞれの文は全てでひとつの段落を構成するものです。どの文が段落の主旨で、段落の初めの文となるべきものでしょうか。初めの文となる文の下線部に MI と書き入れなさい。

1) _____ Not until 1886, with only 16 warriors, 12 women and six children remaining, and pursued by nearly 5,000 U.S. troops and 3,000 Mexican soldiers, was Geronimo captured.

_____ By 1881 the Cheyenne, Sioux and Nez Perce Indians had all been vanquished, and only Geronimo's Chiricahua Apaches roamed free in the American southwest and northern Mexico.

_____ Refusing to live on a reservation, Geronimo's band killed ranchers and settlers to get food, ammunition and horses.

_____ Geronimo, whose real name was Goyahkla, is remembered by most Americans today for his ferocity in battle, refusal to give in against overwhelming odds, and his sharp intellect.

2) _____ During the past 30 years there has been a sharp increase.

_____ Human life has become cleaner, with indoor plumbing and better drugs, so the immune system seems to attack the body itself because it has nothing else to attack.

_____ The reason is not clear, but pollution and changes in lifestyles are leading candidates.

_____ Allergies used to affect only some people, but now a lot of people are bothered by them.

3) _____ Ants defend caterpillars from wasps, and in return, the caterpillars secrete a clear liquid rich in amino acids which the ants drink eagerly.

_____ Lycaenoid caterpillars are found throughout the world and constitute 40% of the 13,500 known butterfly species.

_____ Many types of caterpillars and ants form mutually beneficial partnerships.

_____ In particular, these symbioses have been documented between ants and colorful Lycaenoid caterpillars.

練習 2: 問題初めの文は段落の主旨となる文です。続く 4 つの文はその文を支持する、もしくはその文の例となる文ですがひとつだけ主旨と異なる文があります。その違っている文の下線部に X を書き入れなさい。

1) I think life in the country is better than life in big cities.

_____ It is important for people to breath fresh air.

_____ In the country, people are not near good hospitals.

_____ Big cities are too noisy.

_____ Water tastes very good in rural areas.

2) Canadians always seem so proud and happy to be Canadian.

_____ At the Olympics, they carry around the Canadian flag with big smiles on their faces.

_____ Relations between Canada and the United States have sometimes been difficult, but they are improving.

_____ Before sports events, Canadian citizens sing the national anthem, sometimes with jet fighters flying in formation over the stadium.

_____ People volunteer to join the Canadian army, showing they are willing to die for their country.

3) Mongols practically ruled the world in the 13th century.

_____ Mongols later came under the control of China.

_____ In the year 1214, China was forced to move its capital to the south.

_____ In 1221, about 100,000 residents of Samarkand on the old Silk Road were killed by Mongol warriors.

_____ By the year 1280, Mongols controlled land all the way to the Mediterranean Sea.

練習 3 : トピックスと主旨を支持する考えが書いてあるのでそれを元に段落の初めの文を書きなさい。 :

1) Topic: Cigarettes

Supporting Ideas: 1) Cigarettes cause cancer. 2) Cigarettes harm teeth. 3) Cigarettes cost money.

回答の例 :

- People should not smoke for a number of reasons.
- I think cigarettes are bad for the following reasons.
- There are many reasons why people should not smoke.

2) Topic: Similarities between Japan and Morocco.

Supporting Ideas: 1) Both countries have mountains and lots of ocean. 2) Both countries are capitalist. 3) People in both countries like public baths.

Some Possible Answers:

- There are many similarities between Japan and Morocco.
- Japan and Morocco have a lot more in common than most people might at first imagine.
- Japan and Morocco seem to be a world apart, but in reality the two countries have many things in common.

3) Topic: An Introduction to Hiroshima Prefecture

Supporting Ideas: 1) Hiroshima City is famous because an atomic bomb killed many people there in 1945. 2) Most of Hiroshima Prefecture is covered by mountains. 3) The biggest city is Hiroshima, with a population of about 1.5 million.

Some Possible Answers:

- Hiroshima Prefecture is an interesting place.
- Hiroshima Prefecture is located on the southwest part of Honshu, Japan.
- Hiroshima Prefecture is a mountainous district of Japan, with Hiroshima City being its largest city.

Write a Good Paragraph about Yourself

この章の内容：

- 1) one-paragraph essay 単段落小作文の書き方について
- 2) 小作文の例
- 3) 小作文の練習

単段落小論文を書く

単段落小作文は新聞編集者宛の手紙、TOEFLによくある作文、もしくは上司宛の手紙や大学の授業などでもよくみられるものです。(長作文が必要なときは他の章を参照にしてください)

単段落小作文を書くのは簡単です。次の決まりごとに従ってください。

決まりごと

- 1) 初めの文で簡潔にあなたの意見を述べます。これは **thesis statement** と呼ばれます。
- 2) 続く3つか4つの文でそれぞれ **thesis statement** を支持する理由を1つ書きます。

3) 最後に近い文では反対派の意見についても述べ、なぜその意見が正しくないのかを述べます。

4) 最後の文ではあなたの **thesis statement** をもう一度述べます。

小論文の例:

下記の問題と小作文はしばしば TOEFL にでるよう問題とその回答です。

Question 1: Some students think that living in an apartment is better, while others think that living in an on-campus dormitory is better. Which opinion do you agree with, and why?

I think that to live in own apartment is better than to live in an on-campus dormitory. First, it is important to live alone, because man must remember to cook, to wash his or her own cloths, to clean the rooms and to use money. Second, it is not comfortable to live in an on-campus dormitory with friends from morning till night. Also, we have more time in own apartment than in an on-campus dormitory. In conclusion, I think we should choose to live in own apartment.

小作文を書いてみましょう！

Write about:

- Introducing Yourself
- Your School Experiences
- Your Work Background
- Your Future Dreams

Introducing Yourself

1) What's your name?

Type your answer here:

Example Sentences:

I'm Michihiro Tanaka.

My name is Michihiro Tanaka.

2) Where are you from?

Type your answer here:

Example Sentences:

I'm from Hiroshima.

I come from Hiroshima.

I was born and raised in Hiroshima.

3) How old are you?

Type your answer here:

Example Sentences:

I'm 20 years old.

I just turned 18.

I'll be 19 years old in next month.

4) How many brothers and sisters do you have?

Type your answer here:

Example Sentences:

I have one brother and two sisters.

I don't have any brothers or sisters.

I am the oldest of three kids in my family.

I'm the middle child of three children in my family.

I'm the third child of four kids in my family.

I'm the youngest of four children in my family.

5) What do your parents do for a living?

Note: In English it is better NOT to say a vague expression such as "My father works in a company. Instead, be specific! Exactly what type of job does your father/mother do?"

Type your answer here:

Example Sentences:

My father is a salesman. He sells furniture.

My father is an accountant in a small company in Hiroshima.

My father teaches science in a junior high school.

My dad is a professional truck driver.

My dad works around the house. He's retired.

My mother owns a small grocery store.

My mother owns and runs a farm.

My mother works in the shipping department of a factory.

My mom is a saleswoman in a large department store.

My mom is a housewife.

6) At (name) University, what's your major?

Note: Putting a clause such as "At Hiroshima University" in the beginning of the sentence provides a good transition from the topic of family to your school life.

Type your answer here:

Example Sentences:

At Hiroshima University, my major is engineering.

At Hiroshima University, I major in education.

7) What year are you?

Type your answer here:

Example Sentences:

I'm a freshman.

I'm a first-year student.

I'm a sophomore.

I'm a second-year student.

I'm a junior.

This is my third year.

I'm a senior.

This is my fourth and final year, thank goodness!

I'm a graduate student.

8) Do you like school? Why or why not?

Type your answer here:

Example Sentences:

I really like school because...

I think my classes are mostly interesting. For example...

I think school is kind of boring because...

I really don't like school. I think...

9) These days, what kind of things do you like to do?

Type your answer here:

Example Sentences:

I like to watch TV and listen to music.

I like playing the piano and skiing.

I love to go watch movies and to climb mountains.

These days I really like my part-time job.

10) In the future, what do you want to do?

Note: Like above, putting “In the future” in the beginning of the sentence provides a good transition to a new topic. For an answer, it is good cite a specific occupation.

Type your answer here:

Example Sentences:

In the future, I want to be a chemical engineer.

In the future, I would like to teach pre-school children.

In the future, I would like to own and operate my own company.

After I graduate, I want to be a sportswriter.

After graduating, I would like to go to Germany for one month, and then...

Now, put it all together!

CLICK HERE

Finally, add and cut sentences to make your paragraph unique and interesting!

Your School Experiences

1) What's your major and school?

Type your answer here:

Example Sentences:

My major is biology.

I major in dentistry at Hiroshima University.

I'm in the Faculty of Integrated Arts and Sciences.

2) What year are you?

Type your answer here:

Example Sentences:

I'm a freshman.

I'm a first-year student.

I'm a sophomore.

I'm a second-year student.

I'm a junior.

This is my third year.

I'm a senior.

This is my fourth and final year, thank goodness!

I'm a graduate student, getting a master's degree.

I'm a Ph.D. candidate. I specialize in...

3) What are your favorite classes in college?

Type your answer here:

Example Sentences:

My favorite classes are...

Especially, I like...

4) What high school did you graduate from?

Type your answer here:

Example Sentence:

I graduated from (name) High School.

5) What classes and activities did you like in high school?

Type your answer here:

Example Sentences:

In high school, I especially liked...

My favorite classes in high school were...

Now, put it all together!

CLICK HERE

Finally, add, combine, and cut sentences to make your paragraph unique and interesting!

Your Work Background

1) What part-time jobs have you had?

Note: It's good to say the name of the company.

Type your answer here:

Example Sentences:

I work at 7-Eleven.

I work at Shoji, a grocery store.

I'm a private home tutor.

I worked at Yamada Industries, doing factory work for 3 months.

For one year I worked at Chugoku Shinbun, delivering newspapers in the mornings.

2) What exactly do/did you do in that job?

Type your answer here:

Example Sentences:

I work at the check-out counter.

I clean the building at night.

I work on an assembly line, helping to make...

I taught English and math to junior high school students.

I handed out advertisements to people walking in the street.

I helped put things on the shelves.

3) What do/did you like about the job?

Type your answer here:

Example Sentences:

I like talking with the customers.

A lot of nice people work there.

The money is pretty good.

I was able to learn about sales.

I could see up close how a company office runs.

I learned a lot about children, and I was able to help them.

4) What do/did you NOT like about the job?

Type your answer here:

Example Sentences:

The boss is not very friendly.

The money is not very good.

I had to work late at night (or early in the morning).

I didn't have enough time to do my schoolwork.

5) What kind of work do you want to do in the future?

Note: Putting “In the future” in the beginning of the sentence provides a good transition to a new topic. For an answer, it is good cite a specific occupation.

Type your answer here:

Example Sentences:

In the future, I want to be a travel agent.

In the future, I would like to teach high school children.

In the future, I would like to own and operate my own company.

After I graduate, I want to be a nurse.

After graduating, I would like to go to Australia for one month, and then...

Now, put it all together!

CLICK HERE

Finally, add and cut sentences to make your paragraph unique and interesting!

Your Future Dreams

1) What do you want to do in the future?

Type your answer here:

Example Sentences:

In the future, I want to be business executive.

In the future, I would like to help poor people in Africa.

In the future, I would like to own and operate my own store.

After I graduate, I want to be a forest ranger.

After graduating, I would like to go to the United States for one month, and then...

2) Why do you want to do that?

Note: It's best to type at least three or four sentences, answering this.

Type your answer here:

Example Sentences:

I want to... because...

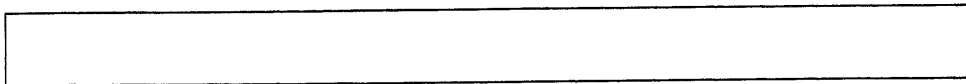
It is important to...

I think that...

These days...

Now, put it all together!

CLICK HERE



Finally, add, combine, and cut sentences to make your paragraph unique and interesting!

第 4 章 : : 初級 : 一段落程度の短い作文を書こう

問題提起: 若い人はよく TV ゲームに時間を費やしますが TV ゲームをすることは良いことかそれとも悪いことでしょうか。

小論文の手引き:

- 1) それぞれ片側の意見に対して3つほどの理由をつけ、メモをとりましょう。
- 2) 意見を選び、あなたの **Thesis Statement** を書きましょう。
- 3) それを支持する文 **supporting statements** を書きましょう。
- 4) またその反対はなぜ悪いのかを書きましょう。
- 5) 結論を書きましょう。

Step 1: それぞれ片側の意見に対して3つほどの理由をつけ、メモをとる。

Computer Games are Good

-- They are fun.

Computer Games are Bad

-- They are bad for the eyes.

- They develop eye-hand coordination.
- They stimulate the mind.
- They are anti-social.
- They are expensive.

Step 2: 意見を選び、あなたの Thesis Statement を書く。

thesis statements の例:

“I think computer games are good for the following reasons.”

“I believe that computer games are bad for a number of reasons.”

“Computer games have more good points than bad points.”

“I am convinced that people should avoid playing computer games.”

Step 3: Thesis Statement を支持する文 supporting statements を書く。

接続語を使うとよいでしょう。(カンマのつくような単語が多いです。):

First...

Second...

Finally...

もしくは、次のような言葉も使えます。:

(Or, you can be more imaginative and use expressions such as :)

To begin with...

For starters...

Also...

In addition...

Furthermore...

Moreover...

... is/are also good/bad because...

Last but not least...

上記の単語が実際小論文の中でどのようにして使われるのか、単語をクリックして見てみましょう。

あなたが TV ゲームは良くないことだと考える場合、例えば次のようなことを書くことができます。:

First, computer games are bad for the eyes.

In addition, when people sit in front of a computer for many hours, they fail to learn how to communicate with other people.

Last but not least, computer games cost too much money.

Step 4: 主張と逆の事（筆者が非難する）最も大きなポイントを書いて、なぜいけないのかということの説明をしましょう。このとき、**but**、**however** や **yet** といった言葉を使うとよいでしょう。例えば次の文の1つをこの **Step4** に当てはめることができます。:

Some people think that computer games stimulate the mind, but actually, like TV, they dull the mind.

Computer game supporters claim that the software is enjoyable, however there are many more enjoyable things in life, such as playing sports, talking with friends, and hiking in the woods.

Step 5: 結論を書く。**In conclusion**、**To conclude**、**In summary** や **To summarize** といった（カンマの続く）接続語を使うとよいでしょう。この文は簡潔になります。

例：

In conclusion, there are many reasons why computer games are bad.

To summarize, I think people should avoid playing computer games.

したがって最後の段落は次のようになります：

I believe that computer games are bad for a number of reasons. First, computer games are bad for the eyes. In addition, when people sit in front of a computer for many hours, they fail to learn how to communicate with other people. Last but not least, computer games cost too much money. To summarize, I think people should avoid playing computer games.

小論文を1段落ずつ書く練習をしてみましょう。

問題提起： What do you think is the best way to study a foreign language?

あなたの考える最もよい外国語の学習法は何でしょう？

Step 1: それぞれ片側の意見に対して3つほどの理由をつけ、メモをとりましょう

Step 2: 意見を選び、あなたの **Thesis Statement** を書きましょう

Step 3: それを支持する文 **supporting statements** を書きましょう。

Step 4: 主張と逆の事（筆者が非難する）最も大きなポイントを書いて、なぜいけないのかということを説明しましょう。

Step 5: 結論を書きましょう。

それでは最後にここをクリックしてあなたの書いた小論文を見てみましょう！見直ししてよりよいものへと仕上げてみましょう。

問題提起: Imagine that you are a leader in a government. The government has a limited amount of money. Which of the following sectors of the economy would you recommend receive more money?

あなたは政府で最も権力のある人です。今、政府は限られた予算をもっています。次の経済分野のうちどの分野にもっとも予算を使うべきでしょう？

重工業 heavy industry (such as steel or chemical factories)

軽工業 light industry (small factories)

新技術産業 (such as computer companies)

サービス業 (such as department stores)

医療福祉 (such as hospitals)

Step 1: それぞれ片側の意見に対して3つほどの理由をつけ、メモをとりましょう。

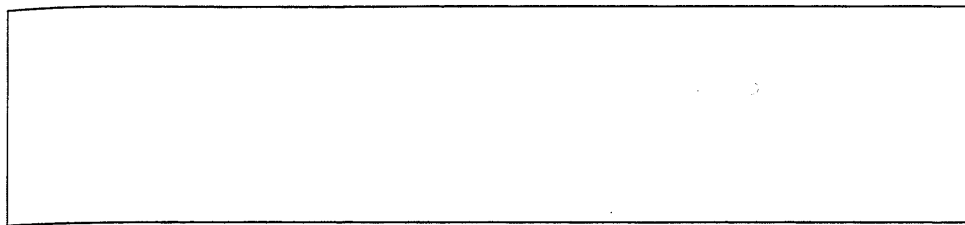
Step 2: 意見を選び、あなたの **Thesis Statement** を書きましょう。

Step 3: それを支持する文 **supporting statements** を書きましょう。

Step 4: 主張と逆の事（筆者が非難する）最も大きなポイントを書いて、なぜいけないのかということを説明しましょう。

Step 5: 結論を書きましょう。

それでは最後にここをクリックしてあなたの書いた小論文を見てみましょう！見直ししてよりよいものへと仕上げてみましょう。



第 5 章：：初級：その他

広大生のための英語 E メール交換広場

Hiroshima University's English E-Mail Exchange! (Bulletin Board)

<http://flare.media.hiroshima-u.ac.jp/english/writing/basic/bbs/bbs.cgi>

広大生のための英語でチャット(Hiroshima University's English Chat Page)

第 6 章：：中級：インフォーマルな手紙や E メールの書き方

この章の内容:

- 1) Eメールの書き方
- 2) Eメールの例 (1a 参照)

日常的な手紙と Eメールの書き方

友人などに送る手紙を英語で書くのはむずかしくありません、なぜなら構成などを考えなくていいからです。注意することは正しい文法で書くということだ

けです。

Eメールでの一般的な文章

下記の文は E メールや日常的な手紙によく使われる文章です。前半にあるものは主に日常的な表現で、後半にあるものが形式的な（丁寧な）表現のものです。前半にある表現と後半にある表現とを織り交ぜて使わないようにしましょう。書くメールにあわせ場合分けをしましょう。

メモ：日常的な E メールの場合、段落の間には初め文頭に空白を入れるのではなく、1行行間を空けては始める場合がほとんどです。

文章をクリックして、例文を見てみましょう。

(文中の名前は全て仮名です。)

This section contains:

1) A list of expressions used in e-mail

Beginning/ Greeting a Third Person/ Giving Encouragement/
Congratulating/ Asking for Advice/ Asking for Information/ Giving
Advice/ Requesting/ Expressing Thanks/ Sympathizing/ Apologizing/
Inviting/ Turning Down an Invitation/ Shopping on Internet/ Finishing

2) Example e-mails

Writing Informal Letters and E-mail

Letters to friends are EASY to write in English, because there are virtually no rules of organization. The only important rule is to use good grammar!

A List of Expressions Used in E-mail

Below are expressions which can be used both in e-mails and in “snail mail” letters. Expressions listed early in each group tend to be more casual, while those listed later in a group tend to be more formal. In any particular e-mail, avoid using more than two expressions from a particular category. Try to use expressions which you are relatively certain are socially appropriate for a particular occasion.

Notice that in e-mail, in contrast to snail-mail, people often skip a line instead of indenting to show a new idea with a new paragraph.

Click on an expression to see how it’s used in REAL e-mails!

(Only the names of people have been changed.)

E-mail の始め

Hi (name)!	1, 6, 9, 14, 20, 23, 24, 25, 26
Hi there, (name)	3
How are you?	4, 11

How's everything going?	23
How have you been?	
It was so nice to hear from you.	27
So nice to hear from you	30
I was glad to hear from you	28
It's always nice to hear from you.	1
I hope you are doing fine.	7
I hope things are going well with you these days.	26
Hope you are well.	2, 9
Long time no see.	3
Hope all's well in your world!	3
Hi everyone! (to more than two people)	5, 21
What's new?	
Are you keeping warm/cool these days?	
Dear (name),	2, 7, 10, 11, 15, 16, 19, 27

ほかの人に（から）よろしく

Say hi to (third person's name) for me. 18

(Name) says "hi." 27

Send my regards to (third person's name).

Give my regards to (third person's name).

がんばってね

Good luck on (your test).

Good luck with this! 14

Wishing you the best.	
I wish you the very best.	30
I'm sure you'll do well.	
I have confidence that you can...	30
You will also do very well.	30
Study hard.	30
I'll be thinking about you.	
Let me know how it goes.	
Let's hope it will come out!	6

おめでとうございます

I heard you...

(Third person's name) told me that you...

Way to go!

Alright!

That's great news!

Congratulations!

Congratulations on passing the test!

I'm happy to hear that you got the job!

アドバイスを求める

What do you think?

How does that sound? 14

What do you recommend I do?

Would you have any ideas about what I should do?

I was wondering if you could give me some advice.

情報を探す

I have no information... Do you?	2
Please let me know.	2, 7, 15, 21, 23
Please tell me more about it!	19

勧める

You should...	
Maybe you ought to...	
Why not... ?	
If I were you, I'd...	

お願いをする

Please...	22
Can you...?	27
Would you...	9
Could you please...?	2, 4
Could I ask a favor of you?	
Would you mind...?	
Would you be able to...?	
I was wondering if ...	3, 4, 23
If it's not too much trouble, could you...?	
If you don't mind, would you...	10
I would like to request that...	22

Would it be too much to ask you to... 9
I would appreciate it very much if you would... 11

感謝を表す

Thanks a lot! 10
Thank you kindly. 2
It was great meeting you this week! 24
I really like the (N).
Thank you for (N) 6, 16, 18, 20, 25
Thanks for (v-ing) 13
It was very kind of you to...
Thank you in advance. 11

心配している気持ちを表す

Hang in there!
Keep your spirits up!
I'm so sorry to hear about (N).
I was sorry to hear that... (S)

お詫びを述べる

Sorry to let you down.
Sorry to trouble you.
Sorry about this short notice.
First, I have to apologize for... 12
I'm afraid I can't (VP)

I'm sorry, but I won't be able to...

I feel guilty about...

Let's try to get together in the near future.

案内状

We are going to have (N)

We hope you... 8

How about... 8, 15, 21

Would you be interested in... ?

Are you interested? 23

Would a Sunday be convenient for you? 21

Come visit us 20

I was wondering if you would like to...

I was wondering whether you... 17

I would like to invite you to... 22

Reply ASAP by e-mail, or call me at home.

If you have some free time... 1

Why not... 1

Let's... 1

Turning Down an Invitation

As kind and inviting as your suggestion is, I regret that I have to decline at this time. 21

インターネット ショッピング

Dear Sirs,

Dear (company name)

I visited your home page.

I would like to...

I placed an order for...

Please let me know about...

Please could you check on this as soon as possible?

E-mail の終わり

See ya.

CU. 28

See you Saturday, 14

Take care! 18, 25, 27, 30

Stay in touch. 27

Bye for now. 3

All the best 3, 8

See you later, (other person's name).

Hope to see you soon again. 9

That's all for now. 6

I hope you all have a great weekend! (to more than two people) 5

Love, (your name) 5, 20, 24, 25

I'll send e-mail again soon. 24

I'll contact you later... 26

Looking forward to... 13

Looking forward to hearing from you. 22

You will always be a welcome visitor in our home.	29
Best regards, (your name)	2, 10, 11
Kind regards,	15
Best wishes,	4, 9
Bye now,	16
Enjoy studying...	28
Keep cool!	23
Sincerely, (your name)	1, 7, 26
Sincerely yours, (your name)	12, 19

第7章：：中級：フォーマルな文書を書く上で必要な様々な決まりごと

This section contains:

A list of important style rules.

Exercises.

形式的な文章を書く上で必要な様々な決まりごと

1) 剽窃はしないこと。自分の言葉で文章を書くことはとても重要である。剽窃とは他人の表現やアイデアを自分のものとして利用することである。もしも、他人の表現を引用する場合、注として参考文献を書く必要がある。その人の独自のアイデアに関心あるのならば、その人を評価するのも当然である。

インタビューやインターネットとテレビなどを通して得た知識や図なども引用して認める必要がる。また他人に代金を支払い、論文の一部でも書いてもらうことは剽窃として解釈される。

筆者は一般的知識以外のものは引用として表示しなければならない。さまざまな所で同じ表現が使われ、引用としても表示されていない場合は一般知識とみて良いだろう。時には剽窃の罪で退学になる研究者や学生もいる。

以上のように、他人の表現やアイデアを引用する場合、表示は必要である。参考文献の作り方はこのサイトの論文の書き方で紹介されている。

2) 先生に提出する前に必ず友人にチェックしてもらいましょう。

3) 必ず行間を入れるようにしましょう。(後で訂正するのに必要なスペースです。)

4) 論文には "I"、"you"、"we" などの人称代名詞は使わないようにしましょう。

したがって、"As I mentioned above..." という文章は "As was mentioned above..." といった形にすべきです。

5) 読み手は答えを求めるので、疑問を投げかけないようにしましょう。

Do you know where the origin of tea is?" とせず "Tea originated in southern China near the border with India" というようにしましょう。

6) "It'll"、"he's"、"they've" などの短縮形は使わないようにしましょう。

7) 文頭では数字を使わないようにしましょう。

例えば”400 people...”とせずに”Four hundred people...”と書くようにします。

8) 必ず 10 未満の数ではアルファベットで、10 以上の数は数字で書くようにしましょう。

”There were 9 people...”と書かず”There were nine people...”と書きます。

9) “recently”という単語を使うと文は現在完了形にしなければいけません。

例：“Recently the government has researched the amount of dioxin.”

10) “most people”と書くように気をつけましょう。“most of people”は間違いです。

したがって、“most women”、“most animals”となりますが、“most of the people”は間違いにはなりません。

11) “because”、“and”、“or”は文頭に使わないようにしましょう。

12) 現在完了形を使う代わりに”came to be...”や”came to understand...”などという書き方をするのは避けましょう。

”Students came to be hard to deal with.” とせず

”Students are hard to deal with.” とすべきです。

13) 性差別的用語は使わない。具体的なものを示すときは”man”や”

he/his/him”を使うことは避けよう。文章を書くとき2つの方法があります；

A) 複数形にする；

性差別的用語

適切な用語

Give each student his paper
as soon as he is finished.

Give students their papers
as soon as they are finished.

The average student is
worried about his grade.

The average student is
worried about grades.

B) もし必要なら、ONE, HE/SHE を使う；

差別的用語

適切な用語

If a student got an A, he did not
have to do the extra work.

Anyone who got an A, did not
have to do the extra work.

Anyone who wants to go to the
game tomorrow should bring
his money.

If a student wants to go to the
game tomorrow, she/he
should bring money.

この表も見てみよう；

通常の不適切な用語

望ましい用語

mankind

humanity, people, human beings

man's achievements

human achievements

man-made

synthetic, manufactured, machine-made

the common man

the average person, ordinary people

man the ship

staff the ship

six man-hours

six staff-hours

chairman

coordinator (of a committee or
department), moderator (of a
meeting), presiding officer, head,

	chair
businessman	business executive
fireman	firefighter
mailman	mailcarrier
steward and stewardess	flight attendant
policeman and policewoman	police officer
congressman	congressional representative

14) 論文では会話文を使わないようにしましょう。

例えば、” Will you come?” とする代わりに He asked me if I would come ...とすべきです。

15) such as と表す代わりに and so on や etc と表してはいけません。

なぜな

ら、その表現はあまりにもはっきりしないからです。したがって “Japan imports potatoes, corn, wheat, and so on,” というような文は “Japan imports food such as potatoes, corn and wheat.” とすべきです。

16) cannot はひとかたまりの単語だということを覚えておきましょう。

17) “The number of students is increasing.” と表す代わりに “Students are increasing.” と書いてはいけません。人、問題、車や数えられるものは実際には増えたり減ったりすることはありません。したがって “The number of --- is...” と表すように しましょう。また、水やビール、感情やお金など数

えられないものは"The amount of --- is..." と書くようにしましょう。例: The amount of trade is going up.

18) 段落のはじまりは5文字分の空白スペースを空けましょう。

This section contains:

- 1) A list of important style rules.
- 2) Exercises.

Some Important Rules for Writing Formal Essays

The following rules are based on common mistakes which Japanese university students have been seen to make when writing English essays.

They are in no particular order.

1) Do not plagiarize. It is very important to write while *using your own words*. Plagiarism is defined as copying another person's vocabulary expressions, or using another person's ideas without giving that other person credit. If you like another person's vocabulary expression (even two words together), then put quotation marks around the expression and cite the source. If you like another person's unique or interesting idea, then you must give that person credit. If you interview another person, write about something unique seen on Internet or TV, or use another person's charts or pictures, then you must clearly give that other person

credit in your own writing. In addition, asking or paying another person to write parts of texts may be interpreted as a form of plagiarism.

A writer must cite research sources for everything that is not “common knowledge.” If you have seen vocabulary expressions or ideas in several different places where no sources are cited, then it is probably common knowledge.

Sometimes researchers are fired and graduate students are expelled from universities for committing acts of plagiarism.

In summary, if you want to use another person’s “unique phrase” or ideas, you must give that other person credit. For details on making references, see the section of this Internet site which concerns writing research papers.

2) Always have a friend check your paper before giving it to the teacher.

3) Always put a space between lines so the teacher or a friend can make corrections.

4) Avoid personal "I", "you", and "we", except for the thesis statement. So, instead of: "As I mentioned above...", write "As was mentioned above..."

5) Avoid asking questions. Readers want answers!

So, instead of: "Do you know where the origin of tea is?"

Write: "Tea originated in southern China near the border with India."

6) Do not use contractions "it'll", "he's", "they've" etc.

7) Do not begin a sentence with numerals.

For example, instead of writing: "400 people..." write: "Four hundred people..."

8) Always write out numerals under 10. But use numerals 10 or above.

Instead of writing: "There were 9 people...", write: "There were nine people..."

9) The word "recently" usually requires present perfect tense.

So: "Recently the government has researched the amount of dioxin."

10) Write "most people," instead of the incorrect "most of people"

Likewise, "most women", "most animals", etc. But "most of the people" is OK.

11) Avoid beginning a sentence with "because", "and" or "or."

12) Avoid the grammar "came to (be, understand, etc.) Instead use present perfect tense. So, instead of: "Students came to be hard to deal with."

Write: "Students are hard to deal with."

13) Use non-sexist language. Avoid the word “man” and “he/his/him” when referring to general phenomena. When writing sentences, there are two ways to do this:

A). Make it plural.

Sexist Language

Give each student his paper
as soon as he is finished.

The average student is
worried about his grade.

Good Alternative

Give students their papers
as soon as they are finished.

The average student is
worried about grades.

B) If necessary, use ONE, HE/SHE.

Sexist Language

If a student got an A, he did not
have to do the extra work.

Anyone who wants to go to the
game tomorrow should bring
his money.

Good Alternative

Anyone who got an A, did not
not have to do the extra work.

If a student wants to go to the
game tomorrow, she/he
should bring money.

Also, see this table:

Usually Inappropriate

mankind

man's achievements

man-made

the common man

man the ship

six man-hours

Good Alternatives

humanity, people, human beings

human achievements

synthetic, manufactured, machine-made

the average person, ordinary people

staff the ship

six staff-hours

chairman

coordinator (of a committee or
department), moderator (of a
meeting), presiding officer,
head, chair

businessman

business executive

fireman

firefighter

mailman

mail carrier

steward and stewardess

flight attendant

policeman and policewoman

police officer

congressman

congressional representative

14) Do not use dialog (conversation) in a formal essay! For example, instead of writing: "Will you come?" You should write: He asked me if I would come. (See the Exercise II below.)

15) Do NOT use the expressions *and so on* or *etc*. Instead use *such as*. The expression *and so on* is too unclear for formal writing. Thus, instead of the informal "Japan imports potatoes, corn, wheat, and so on," write "Japan imports food such as potatoes, corn and wheat."

16) Note that *cannot* is one word.

17) Do NOT write "Students are increasing." Instead, write "The number of students is increasing." *People, problems, cars*, and other countable objects cannot physically increase, decrease, go up or go down. Instead,

write “The number of is...”

Likewise, for noncountable objects such as *water*, *beer*, *happiness*, and *money*, write “The amount of... is...” So, for example, write “The amount of trade is going up.”

18) Indent every paragraph 5 spaces.

Exercise 1—Checking to See If You Understand These Rules

Correct these sentences:

- 1) I will write about plastic.
- 2) The government has come to do a better job.
- 3) Most of soldiers are good.
- 4) A great deal of pollution is released into the atmosphere recently.
- 5) My father is a mailman.
- 6) 5 out of thirteen people will die of cancer.
- 7) Owls are endangered. Because their forests are disappearing.

8) What was the role of the Emperor during the war?

Exercise II—Avoiding Dialog in Formal Writing (Rule 14 above)

Change these sentences:

1) "I'm a student," she said.

2) "Can you speak French?"

3) "I'll do it tomorrow," he said.

4) "Could you help me?" she asked.

5) "Don't do that," he stated.

6) "Please look," she said.

7) "I've already done that," she said.

8) "She did it yesterday," he said.

Some possible answers:

Exercise 1:

1) This paper will explain about plastic.

2) These days the government is doing a better job.

3) Most soldiers are good.

4) A great deal of pollution has been released into the atmosphere recently.

5) My father is a mail carrier.

6) Five out of thirteen people will die of cancer.

7) Owls are endangered because their forests are disappearing.

8) The role of the Emperor during the war is controversial.

Exercise 2

1) She said she was a student.

2) She/he asked me if I could speak French.

3) He said he would do it the next day.

4) She asked me if I could/would help her.

5) He stated that I should not do that./ He told me not to do that.

6) She asked me to look.

- 7) She said that she had already done that.
- 8) He said that she had done it the day before.

第8章：：中級：ビジネスレターの書き方

この章の内容:

- 1) ビジネスレターの説明
- 2) ビジネスレターの例
- 3) 復習
- 4) ビジネスレターを書く練習 (Bulletin Board)

- 1) ビジネスレターの説明

General Rules

1) 準備をしっかりとする

- A) 時候の挨拶は適切に、なるべく親しみやすい方が良い。もし受取人が友人ならば“元気?”のような挨拶やその人の家族や仕事について聞くのも良いだろう。だが、仕事関係だけの付き合いならば、“Dear (名前だけではなく、氏名か名字を使うこと)”、の後すぐ仕事内容について書く方がよい。
- B) 手紙の初期に、あなたが手紙を書いた主な理由を述べること。
- C) 一つの段落には、かならず一つの主なポイントを置く。そして一番重要なポイントは段落の一番始めの文章に書く必要がある。

- D) 結びは適切で親しみがある方が良い。
- 2) 明確にする—不必要な言葉や文章は使用しないこと。有名なことわざで“時は金なり”とあるが、他人の時間やお金を使うのは避けたい。段落はなるべく短く、2～6つの文章でまとめよう。ビジネスレターの場合一つの段落に一つの文章を使用するだけでも構わない。重要なポイントが強調できるが一つの手紙に二回以上使用しなように心がけよう。

Detailed Style Rules

- 1) 会社のロゴは手紙の一番上に置く。
- 2) 日付は手紙の右上か左上に書く。(See every letter)
- 3) 左側に受取人の名前と住所を書くときもある。 See:E1.
- 4) よく使用される時候の挨拶:
 - a) Dear (受取人の名前), 例えば Dear Amy, 受取人が親友であれば使う。名前の後のコンマを忘れずに。 See: D1.
 - b) Dear (名字), 例えば Dear Ms. Barber, 受取人に会ったことがない、又は知り合いだけと言う場合使うことが好ましい。友達としての距離が分からない場合 “Dear (名前と名字) Fred Kuss” と書くのも可能である。 See: E2.
 - c) Dear (お客様), 受取人の名前を知らない場合使う。又、受取人の名前を知らない場合、消費者と生産者の関係を表している。 See: C1.
 - d) Dear (会社名、職業), 例えば : Dear Real Estate Agent, 受取人に会ったことが無く、名前も知らない場合使う。 See:B1

又、手紙の始めに見出しを付けることも可能である。 See: A1.

- 5) 役に立つ表現:
 - a) We continue to sincerely value you as a customer. See D2.

- b) Thank you for... See E4, E6.
- c) Please find enclosed... (noun) See: B2.
- d) This year we are proud to announce that... See B7.
- e) This is just a reminder that... See D3.
- f) With respect to... See E5.
- g) We truly regret the need to take this action but... See C3.
- h) The details concerning each product can be found at our Web site.
See: D6.
- i) Please see the attached... (noun) See: C5.
- j) If you have any further questions, please contact... See C7.
- k) Feel free to contact me at... See: B6.
- l) Please do not hesitate to contact me if I may be of additional
assistance.

6) 結びに使える用語:

- a) Sincerely, See: E3.
 - b) Sincerely yours, See: A5.
 - c) Cordially yours, See: B3.
 - d) Cordially, See: C2.
 - d) Best wishes, See: D2.
- 7) 草書体でサインをする。 See every letter.
- 8) 自分の名前、住所、電話、FAX、E-MAILを書く。 See almost every letter.

Reasons for Writing Letters

- 1) 新しい情報を知らせる。 See: A2, B3, C2, D4.

- 2) お客様に役立つものやサービスをどのように提供できるか説明する。 See: A3, C4, D5, E8.
- 3) どの問題も解決できるよう、お客様の為になると言う思いを知らせる。 See A4, B4, B5, C6.

This section contains:

- 1) An explanation of business letters
- 2) Examples of business letters
- 3) Practice exercises
- 4) Practice writing a business letter. (Bulletin Board)

1) An Explanation of Business Letters

General Rules

1) Be organized—

- A) Have an appropriate, relatively-friendly greeting. If the letter-receiver is a friend, you can write a sentence such as “How are you?” and possibly ask about the person’s family or work. But if it is truly only a business relationship. Then, after “Dear (last name, or full name— *not* first name)”, you can start immediately with the main point of your letter.
- B) Early in the letter, state your main reason for writing.
- C) Each paragraph should deal with one main point. And the most important point of each paragraph should be in the first sentence

of that paragraph.

D) Have an appropriate, relatively-friendly closing.

2) Be concise—Don't use unnecessary words and sentences. "Money is time" says a famous expression, and you don't want to waste the time and money of others. Have relatively short paragraphs— probably from two to six sentences each. In a business letter, sometimes a one-sentence paragraph is OK—it can effectively emphasize a point-- but do not do it more than twice in one letter.

Detailed Style Rules

1) Your company logo is usually at the top of the page.

2) The date is almost always at the top of the letter, either on the left side or the right side. (See every letter)

3) On the left side, the letter-receiver's name and address are sometimes written. See: E1.

4) Some greetings typically used:

A) Dear (first name of letter -receiver), Use this only if you consider the letter-receiver one of your friends. Note the comma after the name. See: D1.

B) Dear (last name), Use this if you have never met the letter-receiver, or are not very close emotionally to that person. If you are not certain how close you are as a friend, then this is the safe and correct choice. See: E2.

C) Dear Valuable Customer, Use this if you've never met the letter-receiver., you do not know the letter-receiver's name, and

it's a customer-seller relationship. See : C1.

D) Dear (occupation name), Use this if you've never met the letter-receiver, and you do not know his or her name. See: B1.

Or, it is possible to put a small headline at the top of the letter. See: A1.

5) Some useful expressions:

A) We continue to sincerely value you as a customer. See D2.

B) Thank you for... See E4, E6.

C) Please find enclosed... (noun) See: B2.

D) This year we are proud to announce that... See B7.

E) This is just a reminder that... See D3.

F) With respect to... See E5.

G) We truly regret the need to take this action but... See C3.

H) The details concerning each product can be found at our Web site.
See: D6.

I) Please see the attached... (noun) See: C5.

J) If you have any further questions, please contact... See C7.

K) Feel free to contact me at... See: B6.

L) Please do not hesitate to contact me if I may be of additional assistance.

6) Some typical closings:

a) Sincerely, See: E3.

b) Sincerely yours, See: A5.

c) Cordially yours, See: B3.

d) Cordially, See: C2.

d) Best wishes, See: D2.

7) Sign the letter in cursive style See every letter.

8) Type your name, address, phone, fax, e-mail, etc. See almost every letter.

Reasons for Writing Letters

1) Announcing something new. See: A2, B3, C2, D4.

2) State why or how your service or product will help the customer. See: A3, C4, D5, E8.

3) Remind the customers that you exist to solve their needs. See A4, B4, B5, C6.

2) ビジネスレターの例

A)

August 1, 2003

Greetings from the New Sales Manager at XX Industries (1)

I am happy to inform you that, as of August 1, 2003, I have been appointed Sales Manager at XX Industries.(2)

Fifteen years in the steel production industry, combined with my 10-year involvement in the management of a successful advertising company, have provided me with an extensive hands-on background from which to

help you.(3)

Having been entrusted with the development of a new team to better serve you, our clients, I welcome your questions and opinions at any time. We are here to provide effective solutions to your daily business concerns.(4)

Sincerely yours,(5)

(writer's signature)

Ray Barber

XX Industries

1-2-3 Magame

Asakita-ku, Hiroshima

Japan 739-1111

Tel: 082-845-0000

Fax: Same as phone number

e-mail: barber@ xxx

WWW: <http://www.xxx>

B)

August 2003

Dear Language Teaching Professional,(1)

Please find enclosed(2) the XXX Publishing catalog for 2004. It contains many exciting new titles for teachers and students.

This year we are proud to announce that(7) English Language Publications, well known for producing high-quality foreign language textbooks, has joined our company.(3) With an extensive range of Australian English textbooks, this addition broadens the range of language learning materials we are able to offer teachers in Japan.(4)

In this year's catalog we have added many new things! We especially recommend:

- *The Daily Lives of Americans and Japanese*—A new four-skills series by Joe Lauer. This series was developed with the help of teachers from many different teaching environments.
- *Australia Today*—A useful reading text for students wanting to travel to Australia.
- *Listening to Australian English*—Teaches Australian pronunciation and vocabulary in a fun way.

At XXX Publishing, we always welcome comments and feedback from teachers and students, because we believe that teaching materials should be based on classroom needs.(5) We would be happy to send you

sample copies of student books. Feel free to contact me at(6) the address below.

Cordially yours,(3)

(writer's signature)

Paul d'Arras
National Director
XXX Publishing
1257 North 55th Street
Milwaukee, Wisconsin
USA 5321-1717

Phone: (Country code: 1) 414- 555-1212

d-arras@xxx

WWW: <http://www.xxx>

C)

October 23, 2003

Dear Valuable Customer:(1)

Due to current worldwide conditions and rising transportation costs, Smith Transportation Company is forced to increase base rates to all customers effective November 1, 2003.(2)

While other major transportation companies have made rate increases over the past twelve months, this is the first time in over four years we have found it necessary to increase our rate structure. We truly regret the need to take this action but(3) we can no longer absorb the rising costs that we have incurred.

Be assured that we will continue to work with all our carriers, vendors and suppliers to keep costs as low as possible so that we can keep our rates competitive within our industry. (4)

Please see the attached(5) Price List for details.

Because of the volatility of the market, certain surcharges are subject to change. Please understand, that we continue to work with each carrier as well as with governmental agencies both in the USA and around the world on your behalf to get these surcharges reduced and ultimately eliminated.(6)

If you have any further questions, please contact(7) your local Smith Transportation Company office or sales representative.

Cordially,(2)

(Signature)

Don (Captain) Berg
Shipping officer
Smith Transportation Company

D)

August 25, 2003

Dear George,(1)

How are you today? It was good to see you last week. I hope that you and your family are doing well!

We appreciate your order the other day. And, we continue to sincerely value you as a customer.(2)

This is just a reminder that (3)we've opened a new branch of Latin American Handicrafts near you.(4) I'm very proud of this new store.

Our products continue to be purely handmade, designed and constructed in South America without involvement of child labor at any stage.(5)

As you know, the products are mostly made of pure brass sheet, die-made with hand embossing and carving, and silver electro plating polish.

All the brass products need to be rubbed with brasso liquid polish and cotton buds, and these are absolutely free with every purchase of brass products.

The details concerning each product can be found at our Web site.(6)

Photos of each product are also displayed there.

I hope to meet you again soon, George!

Best wishes,(2)

(signature)

Sachiko Ota

Latin American Handicrafts

1257 North 55th Street

Milwaukee, Wisconsin

USA 5321-1717

Phone: (Country code: 1) 414- 555-1212

customer-service@xxx

WWW: <http://www.xxx>

E)

August 1, 2003

Anita Baker (1)
1919 N. Powell Ave.
Madison, Wisconsin
53211-1111

Dear Ms. Baker,(2)

Thank you for(4) your July 21st letter to my 2nd District Legislative Office .
I welcome the opportunity to respond.

With respect to(5) your Questions #1 and #2, please be advised I voted against and vigorously opposed the original deregulation bill specifically because of the potential negative impact on the local economy.(8) The capping of rates at 10 percent lower than the market caused what is now history: a budget deficit of \$100 million. The original deregulation bill also required state utilities to divest themselves of in-state owned generating facilities. I believe very strongly that the sovereign rights of the state should prevail over any federal initiatives in this area, and that Wisconsin should not be permitted generating stations located within the state to become deregulated.

I trust my concerns will be useful to the Governor's Task Force. Thank you for(6) allowing me this opportunity to submit my comments and please do not hesitate to contact me if I may be of additional assistance.(7)

Sincerely,(3)

(Letter-writer's signature)

Lissa Berg

Representative—2nd District

3) 復習

1) 手紙を書いた一番主な理由を文のどこで主張すればよいか？

- A) 手紙の最初の方で。
- B) 手紙の真ん中のあたりで。
- C) 手紙の最後の方で。

不正解だった場合, see General Rules, #1B.

2) 想像してみよう: あなたは John Smith にビジネスレターを送ろうとしている。あなたはジョンをよく知っていて、彼に何かを売ろうとしている。

適切な挨拶を考えてみよう。

可能な答え:

Dear Mr. Smith,

Dear John Smith, (注意：コンマは重要である。)

不正解だった場合, see **Detailed Style Rules, #4.**

3) 想像してみよう: あなたは個人的に会ったことがない人たちにビジネスレターを送ろうとしています。この手紙は幅広い分野で働く人々に送られ、名前も知らない。あなたは何かを売ろうとしている。適切な挨拶を書いてみよう。

可能な答え:

Dear Valuable Customer,

(又は手紙に見出しを付ける。)

不正解だった場合, see **Detailed Style Rules, #4.**

4) 次には混ざった単語などが書いてある。これを手紙で書くときに使われる正しい文に並べてみよう。

A) We continue to sincerely value you as a customer.

B) The details concerning each product can be found at our Web site.

C) Please do not hesitate to contact me if I may be of additional assistance.

不正解だった場合, see Detailed Style Rules, #5.

手紙の最後に自分の名前をサインする前に“Sincerely,”と表現することも可能である。

このように手紙の最後で使える一つか二つの単語をつかった表現を考えてみよう。

例: _____

別の例:

このサイトで学んだ用語は:

Sincerely yours,

Cordially yours,

Cordially,

Best wishes,

不正解だった場合, see Detailed Style Rules, #5.

第9章：：中級：履歴書の書き方

履歴書の書き方

次は二つの分野に分かれている：

- 1) 履歴書の作り方
- 2) 履歴書の例
- 3) 自分の履歴書を作ってみよう

履歴書の作り方

- 1) パソコンを使って自分の履歴書を作ってみよう。最近では履歴書を郵便で送るより、e-mail を使って雇用者に送る方がよい。又、インターネット上で履歴書を載せるサイトがあり、雇用者自身が見つけたすことも出来る。
- 2) 履歴書はなるべく単純に。すべてをA4用紙一枚にまとめることが重要である。雇用者は一枚以上もある履歴書を読みたくないだろう。
- 3) 履歴書をこのような分野に分けよう：目標、学歴、仕事経験、専門的分野、資格、問い合わせ。
- 4) アメリカ式かイギリス式？アメリカ式の履歴書は最近の行動を最初に持ってくる。だがイギリス式の場合年代順に書くのが一般的である。
- 5) 明確な言葉を使おう。あいまいな表現をするのは避けよう。例えば、“経営と教育の分野を担当していた”よりも、“エンジニア達のチーム監督を務めた”の方がはっきりしている。自分の過去の経験、学歴、専門的分野などを説

明しよう。自分の業界に適した専門用語を使うのも忘れずに。自分の特徴や業界に対する気持ちを伝えよう。そして、自分が使用するコンピューターソフトウェアも書いておこう。例：Microsoft Word.

6) 自分がどのように会社に影響を与えるか伝えよう。

7) 正直に書こう。

履歴書の例

自分の履歴書を本格的に作成する場合、次のような書き方を見習えば単純である。

注意：次の方法で書く場合、まったく同じように作るのが一番重要である。例えば、コンマやコロンの後には必ずスペースが必要。又、問い合わせに雇用者が連絡できる人の名前、電話番号または e-mail を最低二名書いておこう。学生の場合、学歴が一番有力な分野なので始めに書いておくと良い。

Writing Resumes/ Curriculum Vitae

This section contains the following two parts:

- 1) Rules for making resumes.
- 2) Examples of resumes.
- 3) Make your own resume! (Bulletin Board)

1) Rules for Making Resumes

- 1) Create an electronic version of your resume. These days, instead of snail-mailing resumes to employers, it is often best to send your resume to the employer via e-mail within minutes of learning of an

opening. You can also post it on a resume bank site that employers can search for matches.

- 2) Keep the resume relatively short. It should be able to fit onto one A4 page. Employers do not want to read more than one page.
- 3) Divide your resume into parts such as these: Goals, Education, Work Experience, Professional Affiliations, Licenses and References.
- 4) American or British style? American resumes usually put the most-recent activities first. British resumes tend to go in chronological order (with the oldest activities first).
- 5) Use concrete words to describe your skills. Do not use vague descriptions. For example, use "managed a team of software engineers" rather than "responsible for managing and training." Describe your past experiences, education, professional affiliations, and so on. Use jargon and acronyms specific to your industry. Describe your interpersonal traits and attitude. List the names of software that you use, such as Microsoft Word.
- 6) Describe how you can help the company!
- 7) Be truthful.

2) Examples of Resumes

It is easy to make your own professional, personal resume if you follow the styles of these resumes.

Note: It is important that you do things in exactly this way. For example, put a space after all colons and commas! Also, you must include references—the names and phone numbers or e-mail addresses of at

least two people whom employers can contact. Students should usually list their education first, because that is usually their strong point.

典型的な学生の履歴書：

(アメリカ式)

Curriculum Vitae

Full Name: Michihiro Tanaka

Birth: October 29, 1983

Sex: Male

Present Address: Apt. 10,

Minaga Haitsu, Saijo-cho

Nationality: Japanese

Higashi Hiroshima City, 739-1741

Japan.

Phone: 090-1844-xxxx

Martial Status: Single

Education:

April 2002-Present--Hiroshima University, Faculty of Education, Major: Music.

April 1999-March 2002--Tanegashima High School, Grade Point Average: 3.7.

Work Experience: None

Other Achievements:

Captain of High School Wind Ensemble Club.

References:

Prof. Shin Nakayama, Hiroshima University,
Higashihiroshima-city Hachihinmatu Hara, 0824-29-2288

Mr. Katsutoshi Suzuki, Utsunomiya High School,
Nishinoomote-city Nishinoomote, 09972-3-3331

My Goal:

I would like to be a music teacher.

Student with very little work experience
(British Style)

MIKI SHIMIZU

33 Maple Street, London W2 3BT

Telephone: 020-7654 3210; Mobile: 07960 999999; E-mail:
miki9999@hotmail.com

Employment

1999-2001 Shoji Grocery Store, Higashi Hiroshima, Japan

A grocery retailer in Japan.

Sales Assistant

- Advised the main shop's customers about organic and health foods
- Developed new business in smaller satellite stores, explaining the benefits of supplements and organic food to potential new customers
- Increased sales at both the main and the satellite shops. The extra profits were used to expand the business by establishing a new shop

Education

Sep 2003 - Present King's School of English, London

English language school; passed Cambridge First Certificate exam
in June 2002

1999-2003 Hiroshima University, Higashi Hiroshima, Japan

Degree in Business

Other Skills

Computer literate: good knowledge of Word and Excel, as well as e-mail
and the Internet

Fluent in Japanese; practical knowledge of English and Korean

Personal Details

Date of Birth 6 January 1975

Nationality Japanese

Gender Female

Work status Student visa

Interests Studying English, visiting museums, playing golf

仕事経験がある 20 代の方

(アメリカ式)

Curriculum Vitae

Full Name: Hiro Tanaka

Birth: April 30, 1975

Sex: Male

Present Address: 354-226

Nationality: Japanese

Shimominaga, Saijo-cho

Phone: Japan (0824) 26-1502

Higashi Hiroshima, Japan, 739

USA (414) 963-9319

Family: Wife and 1-year old son

Education:

July 2001: Master of Arts-- Applied English Linguistics/ Teaching English as a Second Language, University of Wisconsin.

September 1997: Successfully completed an 8-week course in Teaching English as a Foreign Language, Japan International Cooperation Agency (JICA), Morocco.

June 1997: Bachelor of Science-- Economics, Hiroshima University.

Teaching Career:

April 2002- Present: Full-time English Instructor, Hiroshima University.

September 1997- July 1999: High School Full-time English Instructor, JICA, Rabat, Morocco.

Most Important Publications: (There are several others not cited here.)

The Daily Lives of Americans and Japanese. 2003. Nan'un-do Publ. Tokyo.

The TOEFL and How to Improve Your Score. 2004. Studies in Culture and the Humanities. Hiroshima University. Vol. 3. pp. 199-209.

References:

Professor Jane Foster: University of Wisconsin. Phone: 01-425-1111.

Scott Wikgrem (Boss in Peace Corps): e-mail: Wikgrem@yahoo.com

Person in 20s, with some work experience

(British style)

CURRICULUM VITAE

Andrew Foster

105 Cheriton Road

Dorchester

Dorset DY4 4HQ

Telephone: Dorchester (0305) 69542

Date of Birth: January 15th, 1978

Education

GCE 'O' level examinations (June 1998) : English Language (3); English Literature (4); Mathematics (5); Combined Science (6); History (1); Geography (1); (December 1999): French (5).

GCE 'A' level examinations (June 2000): History (8); Economics (E); Geography (B).

2nd Class Honors Degree in Psychology (B.Sc.) from Hull University (2001)

Diploma in Music (Dartington Hall, 2002)

Post-Graduate Certificate of Education in Primary Teaching (2003)

Other Achievements

Captain of School Swimming Team (1996-97); School Basketball Team; School Debating team; School Debating Vice-Captain (1997); University Basketball Team; President of University Arts Society (2000); President of Student Union, Dartington Hall (2000-2001); Grade 8 – Piano; Grade 6 – Harpsichord.

Employment

1994-1997 Part-time work weekends/holidays furniture removal

1996-1999 Christmas work for post office

9/97 to 4/98 Salesman, Little Foxes Record Shop, Fulham, London

9/01 to 10/22 Salesman, HMV Record Shop, London

10/02 to 7/03 Junior Officer, Arts Council, London (with

responsibility for music projects)

4/04- Present Self-employed harpsichord constructor

Interests & Activities

Playing the piano and harpsichord; playing renaissance music on authentic instruments; instrument making, particularly keyboard instruments; chess; European literature and philosophy; psychology; hill walking; horticulture; active member of Ecology Party.

Personal

Married 1999

Two children, born 2001 and 2002

References

Dr Bryan Tunniwell, Dartington Hall, Devon College. E-mail:

ggg@hotmail.com

Mr. Richard Raine, Headmaster, Grove Middle School, Dorchester, Dorset.

Phone: 02-333-3333

Make your own resume! (Bulletin Board)

第10章：：中級：就職のための書類の書き方

ここでは次のものがふくまれている：

- 1) Cover letter の説明。
- 2) Cover letter を書く練習。(Bulletin Board)
- 3) 申込書の書き方。
- 4) 申込書の書く練習。(Bulleting Board)

就職活動

レジュメと一緒に、まだ二つ重要なものがある。Cover letter (自己推薦書) と申込書である。

Cover Letter の説明

I. Cover Letter の書き方

郵送で申し込む場合これが必要となる。電子メールでの申し込みも同じく必要とされる。

Cover letter には基本的に3つのパラグラフが必要とされている：

- 1) 1つ目はこの手紙を書いている理由と自分が真面目に働けるという自己アピール。
- 2) 2つ目は履歴。
- 3) 最後には企業主に謝礼。

This section contains:

- 1) An explanation of cover letters.
- 2) Practice writing a cover letter (Bulletin Board)
- 3) Practice filling out an application form. (Bulletin Board)

Applying for a Job

In addition to having a resume (see resume page), there are two other important tasks related to looking for a job: Cover Letters and Filling Out Application Forms.

A Cover Letter

I. Rules for Writing Cover Letters

The first skill which will be covered here involves writing a cover letter. This is a letter which accompanies a resume when you apply for a job by mail. An application by e-mail also should include a cover letter.

A cover letter typically consists of three paragraphs.

- 1) In the first paragraph, tell why you're writing and the main reason why you would do a good job.
- 2) In the second paragraph, explain about your background.
- 3) In the final paragraph, thank the employer for considering your

application.

II. An Example of a Cover Letter

10, Rowley Road,
Chelston,
Torquay

Personnel Manager,
SIFAM,
Torquay

18th May, 1983

Dear Sirs,

I'd like to apply for the job of 'Canteen Assistant' that I saw advertised in yesterday's edition of *The Daily Post*. For the last two years I've been working in a primary school canteen in Newton Abbot, and had experience before that working in a pub.

I'd be grateful if you could tell me more details about the job before you invite me for an interview...

申込書の書き方

次の申し込み用紙に記入せよ：

Private and Confidential

Please complete this form and return it to the Personnel Director.

Which post are you applying for?

How did you hear about it?

Surname

Forenames

Mr/Mrs/Miss

Permanent address

Telephone

Present address (if different from above)

Telephone

Date of birth

Place of birth

Marital status

Maiden name (if applicable)

Number of children (sex and age)

Name and address of next of kin (please state relationship)

Have you ever been employed by us before? (If so, please give details)

Please list schools, universities attended

Date	Name	Subjects taken	Results

What training courses or further studies have you undertaken?

Languages (state proficiency)

Technical or professional qualifications

Give names and addresses of previous employers, working backwards from present/last job

Dates	Name and addresses	Salary	Job title and duties	Reason for leaving

What is your general state of health?

How much time have you had off work, through illness, in the last five years?

What are your main current interest, hobbies, membership of clubs, etc?

Names and addresses of two references (References will not be taken up without your prior consent)

I believe the information given to true

I understand that I may be required to undergo a medical examination

Applicant's signature

Date


FOR PERSONNEL DEPARTMENT USE

Example of Completed Form

Private and Confidential

Please complete this form and return it to the Personnel Director.

Which post are you applying for? Japanese teacher
How did you hear about it? Internet homepage

Surname		Forenames
Mr/Mrs/Miss		
Ota	 Toru	Mr.

Permanent address	Telephone
9-1 Shugaku-in-cho, Ukyo-ku, Kyoto, 606-8046	075-721-1111

Present address (if different from above)

Telephone

1-12-21 Magame,

Saijo 739-8521

(0824) 24-6353

Date of birth

Place of birth

April 30, 1985

Kyoto, Japan

Marital status Single

Maiden name (if applicable) --

Number of children (sex and age)

--

Name and address of next of kin (please state relationship)

Satoko Ota (mother) and Michihiro Ota (father)

Address is same as permanent one.

Have you ever been employed by us before? (If so, please give details)

No.

Please list schools, universities attended

Date	Name	Subjects taken	Results
4/03- Present	Hiroshima University	Major: Education	GPA = 3.2
4/99- 3/03	Kyoto Higashi High School		GPA = 3.8

What training courses or further studies have you undertaken?

Kawai Juku College Preparation (Feb. 2001- Dec. 2002)

Languages (state proficiency)

Japanese = Fluent

English (Reading = Very good; Writing = Good; Listening = Good; Speaking = OK)

German = Beginner

Technical or professional qualifications

Abacus = Grade 6

Give names and addresses of previous employers, working backwards from present/last job

Dates	Name and addresses	Salary	Job title and duties	Reason for leaving
5/03- 12/03	Gusto Restaurant, Saijo. Phone: 0824- 24-1111	900 yen/hr	Washing dishes	To concentrate more on studies

What is your general state of health?

Excellent

How much time have you had off work, through illness, in the last five years?

2 days

What are your main current interest, hobbies, membership of clubs, etc?

- Karate (brown belt)
- Reading science and history
- University guitar club

Names and addresses of two references (References will not be taken up without your prior consent)

Junko Noborizato, Gusto Restaurant, Saijo (Phone: 0824-26-1111)

Professor Jun Tanaka, Faculty of Education, Hiroshima University, Higashi Hiroshima, 739-8521 (Phone: 0824-24-1111, e-mail: tanaka@hiroshima-u.ac.jp)

I believe the information given to true

I understand that I may be required to undergo a medical examination

Applicant's signature

Date

FOR PERSONNEL DEPARTMENT USE

第11章：：中級：留学願書の書き方

ここでは次のものが含まれている：

- 1) 海外の学校へ手紙を書き、書類を求める方法。
- 2) 申込書の書き方。

海外留学

1) 海外の学校へ手紙を書き、書類を求める方法。

海外の学校へ手紙を書く理由は二つある。一つは自分自身が学びたいコースやプログラムがあるか聞くこと。また、外国からの留学生の為に英語のコースを行っているかを調べるためである。

どっちとも次の書き方がある：

- 1) 自分が要求するものを最初に書く。
- 2) 自分が学校で習いたい分野を伝える。
- 3) 軽い自己紹介をする。
- 4) 宿泊や食費について聞く。
- 5) 相手に感謝の気持ちを表す。

This section contains:

- 1) An explanation of how to write a letter to a foreign school, requesting information.
- 2) Practice filling out an application to study abroad.

Applying to Study Abroad

1) Writing a letter to a foreign school, requesting information.

There are at least two reasons why you might want to write to a foreign

school. First, you might want to ask for more information about a certain program that you have read about. Or, you might want to ask if the school has an English program for foreign students.

In either case, this letter has the following form:

- 1) Make the request in the first sentence (because you are a customer)!
- 2) Tell them when you want to study there.
- 3) Tell them a little about yourself.
- 4) Ask for other information such as housing and food expenses.
- 5) Thank them.

2) Filling Out An Application to Study Abroad

Example:

**English Language Center Application Form
And Financial Certification**

Print out this form, complete it, and mail it to the following address.

Admissions Secretary
English Language Center
Michigan State University
I International Center
East Lansing, MI 48824-1035

Telephone: 517-432-1149

This Application is for: Month _____ Year _____

If the English Language Center has already closed admissions for the session (check A or B):

_____ A. Please hold my application and deposit until the next session in which there are openings. I could attend Month _____ Year _____

_____ B. Please return my application and deposit as soon as possible.

Family

Name _____

First Name _____

Other Names _____

___ Male ___ Female

Date of Birth_____

Native language_____

Country of Birth_____

Country of Citizenship_____

Permanent Home Address_____

Current mailing Address_____

Persons Accompanying you to the United States:

Spouse's Name _____

Children: _____

Please provide the following information for each child as it appears in their passport:

Family Name

First Name

Country of Birth

Date of Birth

Age Country of Citizenship

Accommodations:

_____ in a student residence hall

_____ An apartment in married student housing

Do you smoke? No _____ Yes _____

Education:

Secondary _____

Year Graduated _____

University_____

Years attended_____

Year graduated_____

After completing my studies at the English Language Center,

I plan to:

_____ Return to my country

_____Enter an American university

Name of University_____

Location_____

Major field of study_____

Have you been granted admission?_____

Please notify the ELC Office if you are in need of handicapper services.

Example of Completed Form:

English Language Center Application Form
And Financial Certification

Print out this form, complete it, and mail it to the following address.

Admissions Secretary
English Language Center
Michigan State University
I International Center
East Lansing, MI 48824-1035

Telephone: 517-432-1149

This Application is for: Month September Year 2005

If the English Language Center has already closed admissions for the
session (check A or B):

A. Please hold my application and deposit until the next session in

which there are openings. I could attend Month _____ Year _____

_____ B. Please return my application and deposit as soon as possible.

Family Name Suzuki

First Name Eri

Other Names _____

____ Male Female

Date of Birth September 10, 1987

Native language Japanese

Country of Birth Japan

Country of Citizenship Japan

Permanent Home Address 3-12-21 Magame

Asakita-ku, Hiroshima

Japan, 739-1741

Current mailing Address 34 Shitami Heights

Saijo, Japan, 739-8521

Persons Accompanying you to the United States:

Spouse's Name (Nobody)

Children:

Please provide the following information for each child as it appears in their passport:

Family Name

First Name

Country of Birth

Date of Birth

Age Country of Citizenship

Accommodations:

in a student residence hall

An apartment in married student housing

Do you smoke? No Yes

Education:

Secondary _____ Utsunomiya High School: Utsunomiya, Japan

Year Graduated _____ 2001

University _____ Hiroshima University

Years attended _____ 4 years

Year graduated _____ 2004

After completing my studies at the English Language Center,

I plan to:

_____ Return to my country

X Enter an American university

Name of University _____ Not decided yet

Location_____

Major field of study_____ Physics_____

Have you been granted admission?_____

Please notify the ELC Office if you are in need of handicapper services.

第12章：：中級：ショートストーリーを書こう： 創作能力を向上させよう

この章の内容:

- 1) 短編小説の書き方について
- 2) 広島大学の生徒が書いた短編小説の例
- 3) 小説を投稿できる掲示板について

- 1) 短編小説を書こう: フィクション小説にトライしてみましよう

フィクション小説を書くための3つの要素:

1) 時代背景—印象的な時代背景をつくるために視覚、聴覚、触覚、味覚、と嗅覚の五感を使いましょう。部屋の中にはどんな家具でしょう？どのような天気でしょう？木を、鳥や虫を、詳しく述べることで表現しましょう。印象的な背景の例： a deserted beach. an empty classroom. a crowded festival.

2) 登場人物—ストーリーに登場する人物は詳しく述べることで印象的なイメージをつくりましょう。どのような姿の人でしょう？どんな性格の持ち主でしょう？登場人物の生い立ちなども述べてみましょう。そして登場人物たちの間には興味をひくような関係を設定してみましょう。例えばあなたの英語の先生があなたの母親と親密になればどうなるでしょう？何が起こるでしょう？！

3) 陰謀—あなたが書く小説はミステリーでしょうか？アクションや SF 小説、それとも時代小説でしょうか？

通常ストーリーの中では主人公は陰謀に対峙し打ち勝ってゆくものです。読んでいて思わず爪を噛んでしまうような悔しいシチュエーションをつくってみましょう。また、ユーモアな表現やシチュエーションも織り交ぜて書くようにしてみましょう。(ユーモアは小説を書く上で大事なことです)

対話を書くときは1段落で一人のセリフを書くようにしましょう。

動物の話を書くのはおすすめしません。(童話のようになってしまいます)

それと主人公に奇妙な事が起こり実はそれは夢だったというパターンもよくありません。この二つはよくある「ありがちなパターン」ですのでやめておきましょう。

フィクション小説は決まりごとが少なくとても書きやすいです。(インターネットの記載されている「決まりごと」の章をみてみましょう)例えば、フィクション小説では書き手は一人称 “I”(決まりごと (3) 参照)を使ったり、

たずねるような文章を書くこともでき(決まりごと 4)、また短縮形(決まりごと 5)をセリフの中に使ったりすることもできます。

重要! : 独創的で創造的であるように心がけましょう。誰でも素晴らしい作品を書くことができます。楽しんで挑戦してみましょう!

2) 広島大学の生徒が書いた短編小説の例

ここでは広島大学の新生が書いた短ストーリーが紹介されています。全部の作品は想像力が引き出されていて、良い文章になっています。これを読んだあと、あなたも自分のストーリーを書いてみませんか。もしかしたら有名になってお金持ちになれるかもしれないですよ!

Once Upon a Time

by Hiroko Seki

なぜクララには親がいないの?なぜ1匹の羊だけ変わっているの?どうしなのか調べてみよう。

A Horse-Faced Prince

(匿名の学生)

ある王女は自己中心的で周りの人にいじわるでした。このような行動をとった彼女には罰があたる。でもそれだからといって、このお話が悲劇になる必要はないよね。

Love and Happiness from the Horizon

(匿名の学生)

小さな島、美しい少女、そして難破船の水兵。ラブストーリーには完璧だね。

Eri and the Fir Tree

(匿名の学生)

えりの心の中には木のことでいっぱいである。だが、ある日台風が訪れた時、この木が倒れそうになり、えりは何か特別なことをしたい思った。

A Picture

by Hiroki Murasawa

ちかと彼女の家族は戦後の日本で暮らしていた。このストーリーの表現力がすばらしい。

Your Service Area is the Earth

by Emi Yamamoto

天使の仕事は大変でもある。このストーリーを読みながらあなたの想像力を広げてみて。

This section contains:

- 1) An explanation of how to write a short story.
- 2) Examples of short stories written by Hiroshima University students.
- 3) A Bulletin Board in which students can write stories, and get feedback.

Write a Short Story: Improve Your Fiction Skills!

Good fiction has the following three characteristics:

1) Setting and Time—Use your 5 senses—sight, sound, touch, taste, and smell—to describe an interesting place and time. Use colorful adjectives.

Some examples of interesting settings: A deserted beach. An empty classroom. A crowded festival.

2) Character—Use interesting expressions to describe the people in your story. What do they look like? What kind of personalities do they

have? Tell the personal backgrounds of the people. Try to have interesting relations between people. For example, if your English teacher and your mother got together, what would happen?!

3) Plot—Will you write a mystery story? An action story? Science Fiction? A historical story?

A standard plot line features the main character facing and then overcoming a major problem. Try to have nail-biting emotional situations! Try to incorporate humor into your writing! (Humor is important.)

Anybody can write high-quality fiction if he or she tries. Have fun!

2) Examples of Short Stories

Here are some short stories written by freshmen at Hiroshima University. They are well written and creative. After reading them, try to write your own short story. Maybe you can become famous and rich!

Once Upon a Time

by Hiroko SEKI

Once upon a time there was a happy family in a far away country. There were only three people in the family and it was made up of a grandmother, a little boy, and a little girl. The two little children felt happy

although they didn't have parents. The grandmother's name was Emma, the little boy's was Ryan, and the little girl's was Clara. They always did farm work in their fields near the house. The two little children, Ryan and Clara, were busy bees.

One day Clara said to her grandmother, Emma, "Why don't we have parents?" Emma couldn't answer anything or wouldn't answer. Clara wondered about why Emma was reluctant to answer, but Clara decided that she should never ask Emma this question again.

Their uneventful lives continued.

One day a white animal appeared in front of Clara. She was very surprised!! It said to her, "I am a sheep, as you can see. I'm from the world of sheep. I came to take you to a place you want to go to. Where do you want to go?"

She couldn't answer because it was a sudden happening, but she thought hard.

The sheep said, "Let me see. Well, let's go to my world because this year is my year!"

Clara thought "I haven't answered yet..."

The sheep took her to the world of sheep. It was a world surrounded with sheep. Everything she could see was sheep... The sheep were leading a free, easygoing and happy life: blue sky, clear air, grasslands covered with green and fresh water...

"What a great place this is!" Clara thought. She was a continuance of emotions. She also thought that she would like to stay there ever after. She loved nature, so she thought like this.

However, the sheep said to her that she could stay there only one month.

So, she decided that she should play hard with sheep, take care of them, and love nature more. Almost all the sheep were kind to her, but only one sheep was frosty to Clara. It seemed to hate her. During the month, she talked to sheep, took naps with sheep, and walked together with them.

The month passed in a flash. It came time to go back home. Almost all the sheep were crying, even that frosty sheep. Clara tried to speak to it. "Why are you crying? Because I must go back home?"

That sheep nodded.

Clara continued, "But, you don't like me, do you?"

The eyes of that sheep changed to a kind expression, and it began to talk. "I never hated you. To tell the truth..."

"To tell the truth, what?" Clara said.

That sheep tried to hesitate, but dared to speak the truth. "To tell the truth, I am your mother. I have been staying here because a spell was cast on me by a witch and changed me into this figure. She cast a spell on your father, too! He changed into the little boy you know well."

Clara was struck dumb with astonishment. "But who is the little boy I know well?" she thought. Then, she suddenly understood who he was. "The little boy is Ryan!!" she shouted, and said. "Where is the witch?"

Clara's mother answered. "The witch died, so we don't know how to break the magic, but she wasn't a bad person. She just cast a spell as an experiment from the beginning. It just only failed... However, I never have

a grudge because this life is very fun for me. Please trust me, Clara. So, go back home alone at once.”

Clara understood her feelings, so she decided to go back home alone. She said to her mother, “Goodbye Ma’am... but, we will surely meet again!!”

Her mother promised.

Clara was very happy and went home with the first sheep.

“Emma,” Clara's grandmother, said to her, “who were you speaking with?”

Clara answered “With nature!”

Clara knew everything, but never told anything to anyone. So, she led an ordinary life, and said to Ryan and Emma with a smile, “I love you.”

The two persons didn't see, but they answered to Clara, “I love you, too.”

They lived happily ever after.

A Horse-faced Prince

(Anonymous Student Author)

In a certain country, there was a princess who was very, very beautiful. She was so beautiful, but very proud and haughty. One day a king had a big party for people who wanted to get married with the princess. He tried to make her choose her match. Many people were invited. She

ordered them to line in rank order and looked them over. And she found fault with the men and criticized them, like, "You look like a barrel," or "You are tall and lean, so powerless," or " You look pale and grim." And so on.

Because the good-natured prince at the head of a table had a little long face, she said "Look everyone, his face looks like a horse's!" And he was laughed at by everyone. Since then, he was called "the horse-faced prince." The king who saw this got angry and in front of them promised that the beggar who came to the door first would be her husband.

About three days later, a man began to sing in front of the door to get some handouts. The king who heard it said "Get him in here" The man, who was called in front of the king and the princess, wore shabby clothes and was very poor.

The king said "I like your song very much."

And the man said "Right, then please give me some handouts."

The king said, "I'll give you my daughter." Then soon, he called a priest and celebrated a wedding.

After the wedding, the king said "Now that you are a beggar's wife, you can go anywhere with him." She was turned out of the castle with him. She had no choice but to go with him.

They left there and plodded their way. When they came to a big woods, she asked " Whose woods is this?"

The beggar answered " This is horse-faced prince's."

She lamented, saying "If I had chosen him, these woods would have been mine. Oh poor princess. I should have chosen him!"

When they left the woods and came to the grassland, she asked him again, "Whose grassland is this?"

The beggar answered "This is horse-faced prince's."

She said "If I had chosen him, this grassland would have been mine. I should have chosen him!"

Presently, they arrived at a small house. She asked him "What a small and poor house! Whose house is this?"

He answered "This is our house. We live here from now on."

"Where are the servants?"

"There isn't one. You must do everything yourself. Come now, cook dinner." However, she couldn't even make a fire, so he just had to make a fire and cooked.

In this way, they managed to live a few days, but they had eaten almost all that the king gave. The husband said, "You are really worthless. You can't make a fire, spin threads, or trade at the market. So, I went to a certain king and asked him if he needed a servant in a kitchen. Then he said that he would employ you as a servant." Like this, the princess became a servant and did a lot of hard work.

One day in the castle there was a big party. The head cook said "You may look in but don't enter the hall." She looked in the room from behind the door. Everything looked gorgeous in bright lights. She realized that what had got her poor and humble was her pride and haughtiness. She had caused her own punishment. She was ashamed of what she was.

Suddenly, big clapping happened and the prince came in. To her surprise, he was the horse-faced prince. Then he said to her "Shall we

dance?" He plucked her by the hand and she finally entered the hall. Everyone laughed to see her miserable cloths.

She said "Please lose your grip. I apologize for my rudeness. Please, please lose your grip."

He said "Please listen to me, don't be frightened. It was me who lived in that miserable house with you. I did that to distort your pride and punish your haughtiness. I wanted you to know that a pure mind and kindness are more beautiful and important."

"I'm so sorry," she wept bitterly.

He said to her gently, "Trust me. Those detestable days have passed. You got back the beautiful mind. Now let's celebrate our marriage."

Like this they led a happy life.

Love and Happiness from the Horizon

(Anonymous Student Author)

Long, long ago there was a very small island in the Pacific Ocean. It was warm throughout the year and peaceful there. People who lived there were also kind and friendly.

On the island, a man and his daughter were living together happily.

"I'm home, Helen. I'm very hungry. Is dinner ready? " he said.

"Yes. It's OK. How was your day today? " she said.

The man, Richard Brown, was a farmer. Helen gathered shells and sold the shellworks in order to help out her family budget. Her mother had been dead about ten years. She died when Helen was seven years old.

"It's getting stormy tonight. I wonder if it will be fine... " she said.

"If it isn't fine tomorrow, we won't be able to work. But, it's useless to worry. I'm going to bed for tomorrow's work. Good night, Helen. " he said.

"Good night, Dad. I have a hunch that something will happen... " she said to herself.

The next morning, the father went to the field and the daughter went to the beach in order to gather shells as usual. When she arrived there, she found a grounded ship.

"What's happened? "

She quickly ran to the field where her father was working. "Dad! A big ship has gone onto a rock! " she shouted.

"What? Well, let's go and report that to the elder, " he said.

After they reported it, the natives of the island helped the crew of the ship. The crew members said that they were from a far-off country. They received a warm welcome by the islanders.

The next day when Helen was working on the beach, one of the crew members came to her and said, "Hello. I really appreciate you helping us. And I heard you found our ship. If you had not found it, we would all be dead. Thank you very much, Miss...."

"Helen Brown. Call me Helen, please. We're glad to meet people from a far-off country. Have you come to like our island, Mr...?" she asked.

"I'm Paul. Just call me Paul. This island is very beautiful. I like the sea

the best," he answered. "I like you, too..."

"Oh! It's getting dark. I must go home to get ready for dinner. Good-bye, Paul. " She went home in a hurry.

After that the two often talked about their own hometowns, families, and dreams on the beautiful beach till the sun set in the clear blue sea.

But, Richard worried about his family budget. "Helen, how are your shellworks selling? I don't think you work hard as before. What's the matter with you? " he asked.

"Nothing. Sorry, I'll work hard tomorrow. Good night, Dad," she said shyly.

Twenty days later, the ship on which Paul had come was repaired. So the crew members decided they would go back to their own country two days later. The crew members and the islanders were glad that they could go back and held a party. They ate many delicious foods, drank much, sang songs and danced. But, Helen had mixed feelings. Paul had, too.

"Come on, Helen." He took her to the usual beach. "I want you to go with me." He strongly said, and held her tightly.

She was puzzled, " Could you wait for me? I have a beloved father. So... "

At last the day of departure had come. Paul was waiting for Helen on the beach.

"Hey, Paul! We must get going," a crew member shouted. Paul started getting on the ship, disappointed.

" Paul! Wait, please. Could you take me?" Helen asked.

"Of course. Thank you. But, what did you say to your father? " he asked.

"...I left a letter for dad."

And the two departed.

Dear Dad,

I'm sorry for going my own way. But, I noticed that I loved Paul. So I decided to go with him. I will come back to the island at any cost.

He

len

Seven years passed, Richard worked in the field as usual. Then a boy ran to him and said, "Grandpa!" There was a happy family on the island.

Eri and the Fir Tree

(Anonymous student author)

Eri was born in Tokyo, December 29, 2002. Her parents loved her very much. And she was cherished by them. They lived happily every day.

However, Eri's parents died in a traffic accident when she was five years old. Then, she was adopted by her grandparents who lived in Hokkaido and she went there. Her grandparents were very kind to her.

But she always missed her parents and her friends in Tokyo. She thought every night, "Mama, Papa, why did you leave me alone?" Her grandparents didn't find how to console her.

At her sixth birthday her grandparents took her out for a picnic at the farm they had. Then, she found a big, big fir tree. She looked up at it a long, long time. Her grandfather came near her.

She asked him, "How long has the tree lived?"

He said, "I don't exactly know, but it has lived for a few hundred years. Your mother liked it very much. She used to climb the tree and play."

Eri clung to the trunk. She felt that she was being hugged by her mother. She was happy. She began to like the tree, too. Ever since then, her mind brightly changed. Her grandparents were happy too, because they could see her smile.

In April she entered an elementary school. She had good friends soon. But she was often teased by some boys because she did not have parents. Whenever she was teased, she went to the tree and talked to it. Then, she felt calm and got well. Also, she went there whenever she was happy. For example, she came in first in a marathon race, took the top grade in her class, and was bought a bicycle by her grandparents for her birthday present. Whenever she was happy or unhappy, she spent much time with the fir tree. The tree was all in all to her.

When she was thirty years old, a man visited her. He said, "My name is Suzuki. I serve in the Tokyo Metropolitan Government. We are working on a project for scenery development in front of the Tokyo

station, in order to make the place better. We have decided that a big Christmas tree should be placed there. So, we want a big fir tree. At last, I found one which you have. Please give me the tree. It will be a symbol of the place."

Eri dropped into deep thought and said, "I'm sorry, I can't. Because-----." She began to talk about the relation between her and the tree to him, and she said, "I need it for my life."

He listened to her talk seriously. After he brooded for some time, he said, "O.K.I understand your thought. Your talk moved me. It's a pity that I can't get it, but I give up. Thank you, Eri." Then, he returned to Tokyo.

Several days later, a big typhoon hit the town where she lived. She couldn't go out from her house. She worried that a branch or trunk of the tree would snap. After the typhoon went away, she ran to it. It wasn't change at all. She was happy to see it. However that night, she thought, "I don't know when a typhoon will hit my town again. The next time, the tree may not be able to bear it." She was greatly exercised by the tree. Finally, she thought that it would be good for the tree to be loved by many people. Then, she determined that she would give Mr. Suzuki the tree.

Mr. Suzuki was very pleased to hear that. "Thank you, thank you, Eri. I promise you that we'll treasure it," he said.

After that, the tree was moved to Tokyo. In Christmas season, it was decorated with many shining tinsel and colored lights. Many people were fascinated by it. It made them happy. Eri was happy to hear that,

too. The tree was loved by many people ever after.

-the end-

A Picture

By Hiroki Murasawa

Six years had passed after the World War 2. Even in this small town in Tokushima Prefecture, the war's influence was not little. But people kept their sad memories deep in their hearts and lived their days dreaming better lives. Actually the Japanese economy was making great progress, and people's lives were becoming rich.

In a quiet classroom, Chika Yoshida was waiting for her homeroom teacher to come. It was about four o'clock and all her classmates had left the classroom along time before. She felt a bit irritated, as her mother must have been waiting for her. Her mother, Tae, always wanted her to come home at a scheduled time.

Tae was a small and stout woman. She was an old type woman. Her husband Tatuo had died four years before, when Chika was eleven years old. Tae and Tatuo had four daughters and one son. No, they had five daughters, but the youngest girl Chihiro had died during the war. She wouldn't have died if there had been no war, Tae still thought. Chihiro got sick, but if she had only gotten proper medicine, she would not have had to die. Tae hated the war, and she also hated poverty. "If I had had enough money and could have called a good doctor even during the war.

I could have saved Chihiro” Tae sometimes remembered how Chihiro died in her arms. But now she had to work at a factory to raise five children. Chika’s old sisters, Maki and Keiko, started working after they graduated from junior high. Chika’s brother Kazuya was a high school student, and the younger sister Nami was still in the fifth grade of an elementary school. Tae wanted Kazuya to go to college, but she needed a lot of money for that. When she thought about it, she always sighed.

Chika’s teacher Mr. Maeno came into the classroom and merrily talked to Chika. “Have you been waiting long?” Chika just smiled back, though she wanted to say “Yes”. She was taught to be polite to the teachers and she thought it was rude to say that she had waited for a long time. “Now Miss Yoshida, why don’t you sit down?” Mr. Maeno pointed to the chair in front of him. Chika sat down facing Mr. Maeno. “Miss Yoshida, I heard you are not going to high school. Is that right?”. “Yes Sir” Chika answered. “Why is that? I know your father is dead, but you are a very good student. And if you wish, you can get a scholarship to go to high school. I’d like to talk with your mother and ask her to let you go to high school.” Chika was staring at her slippers. They were very old as she was using the ones of her sister’s. Chika wanted to go to high school as she liked to study. “What will mom say if I tell her that I wanted to go to high school?” No. Chika thought. That would just make mom sad and confused. She had to work to make money for her brother. Chika looked up and opened her mouth. “Thank you, Mr. Maeno. I’ve made up my mind, I’d like to work.”

Chika was a beautiful girl. She had big brown eyes and beautiful

white teeth. Many boys wrote to her to ask her to go out, but she never wrote them back. Tae had thrown most of the letters away before Chika got them. So when she started working at Murakami Company, Hiroya the son of the president soon realized that his eyes were constantly looking for Chika.

Hiroya was a tall and slim man. He was six years older than Chika. He was very diligent and warm-hearted, but not handsome. Chika was not interested in Hiroya a tall. There were many other young, rich and good-looking men around her. She was thinking she would choose one out of them. Naoki was the best, Chika thought. He was the son of the owner of a famous hotel. He often asked her to go out though she never said yes. She wanted to say yes, but Tae forbade that.

One day Naoki talked to Tae on her way home. He said, "I got a letter from Mr. Murakami yesterday. It said you got engaged with Mr. Murakami. I'm sad but I will give you up. Congratulations. Please be happy with Mr. Murakami." Chika was shocked. She wasn't engaged with Mr. Murakami. She dashed back to the company and when she found Hiroya, she shouted. "When did I say I would marry you? I did you write such a letter to Naoki?" Her face was red with anger. Hiroya dropped his eyes to the floor and did not say anything for a while. Then, he looked up. Looking into Chika's eye, he said. "I love you. I want you to marry me. I don't want anybody to talk to you" "No!" Chika screamed and ran back to her house crying.

The next morning she didn't want to go to work, but she could not quit the job and. She could not lose the job. It was hard to be with

Hiroya in the same office, but she tried to concentrate on the work. Nothing happened in the office, but when she got home she was surprised to find a letter from Hiroya. It was a long letter telling how much he loved Chika. Everyday the letter came. The mail carrier said “here comes your periodical letter.” After six months, Chika went to see Hiroya with two big bags full of letters. She said, “Ok, I’ll marry you.”

After forty-five years, they are sitting at the living room of Tae’s house. Tae is now 90 years old and sleeps most of the time. Chika and Hiroya had two daughters and both of them are married and have children. Chika talks to Tae, “You know what, mom? Hiroya went to the park with his grandson the other day. There he thought he dropped his purse, which had his driver’s license in it. It was a very cold day, but he kept looking for it over two hours. Actually his purse was in another jacket. He is getting very old.” Tae said to Hiroya, “Why didn’t you stop looking for that? You could have caught a cold. The driver’s license can be reissued.” Then Hiroya said shyly, “I looked for it as it looked like rain on that day. I had a picture of Chika in that purse. I didn’t want to let it get wet in the cold rain. Then he opened the purse and showed the picture to Chika and Tae. It was the picture Chika used when she got a job at Murakami company. The picture had turned red, and though it had been handled very carefully the side is a little crumpled. Chika didn’t know that Hiroya has kept the picture for nearly 50 years. Hiroya said, “Chika is the woman I loved and I promised to make her happy for all her life.” Chika said to Hiroya, “I’ve been always happy with you.” Tears dropped from Chika’s big eyes.

Your Service Area is the Earth

by Emi Yamamoto

Your service area is the Earth. Investigate the state of the planet, and start your work within a week.

[Warning] ruining Concluded.

On graduation day, new angels receive not only their diploma but also a letter of appointment. My letter said the above contents.

“Earth? I’ve never heard of such a planet. Moreover, a word of warning is ruining...?!”

After that, I investigated the Earth. It was...

The Location of the galaxy: included in the solar system.

The average atmospheric temperature: about fifteen degrees centigrade.

The population: more than six billion.

It had water and plants. Seemingly, the planet was blessed to live in.

But... I muttered to myself while looking at pictures of the Earth.

“It’s shining bluey... What a beautiful planet it is. I can’t believe it is expected to be ruined in a hundred years.”

Several days later, I arrived at the Earth. That place was probably Tokyo, which was said to be one of the richest cities of the planet.

“Damn it all! What polluted air this is! How dare they regard this city as the richest!”

I reviled involuntarily while observing from the sky. When I went down to the roof of a high-rise building, my white wings were already tinged with yellow. The atmospheric pollution, water pollution, and the flood of garbage and the wars... the planet had pressing problems piled up mountains high.

“An angel’s work is to make human beings happy. Pluck up my spirit! Something must be done about problems to prevent them from ruining it. I have no more than a hundred years.”

I encouraged myself and lifted my face. There was a gaping ozone hole in the sky. By the way, angels generally can’t take action against objects directly. In addition to that, angels are invisible from human eyes. For that reason, angels whisper to human’s consciences.

I went down to a busy street. Car fumes caused the atmospheric pollution, so I was thinking of stopping people from using cars. At the moment, I found a man who was about to ride his car. I whispered to him. “Don’t use the car... Don’t contaminate the air...”

He glanced at his gold watch, then rode his car and went away. I felt misgivings about his behavior, changed my mind, and whispered to another person. But the man also used his car. I got angry little by little. I flew to a footbridge, and shouted myself hoarse to congested traffic under my eyes.

“Don’t use cars! Don’t contaminate the air! If you don’t settle problems, this planet will be ruined in a hundred years!”

Cars went on discharging fumes as if they couldn’t have anything.

“Hey hey, boy!” It’s just so called Fruitless efforts!”

Suddenly I heard a strange voice behind. I looked around, and a devil sat on the handrail of the footbridge. He smirked and went on talking.

“Inhabitants of this planet are very very selfish. Everybody thinks of only themselves. Giving them warnings is like preaching to the deaf.”

I must not tolerate the devil’s speaking just as he likes in the capacity of an angel. So I said, looking at him sharply.

“They only haven’t realized their crises yet! Once they realize, they must start to restore their mother pla...”

“Haven’t realized? Start to restore? Hum! Mind you, raw angel. They’ve already realized it. However, they intend not to restore but to abandon their mother planet.”

No sooner had I finished speaking than he told back, I could do nothing but utter “What..?” That was as much as I could do. His utterance was shocking.

“Oh boy. What do you know? They intend to emigrate to the Mars. A probe has already been launched. Human beings dump anything – garbage, usable clothing and radio active wastes... even the Earth!! Ha-ha! Disposable planet! It’s funny!! They get all the use of the Earth and then discard it”

“Shut up! Shut up Devil! They’ll abandon the mother planet? How can that be true! I.. I believe humans. I believe that humans will restore their planet. I believe they love their birthplace!!” I cried holding my head in my hands. He grinned at me.

“Your ideas are green. The Angel’s work is to make human beings happy isn’t it? Then, to let them do anything they like is the easiest way

to make them happy.....Oh! It's high time for me to have lunch. See ya, bye!" The Devil flew away. I just stood erect on the spot, and only repeated in order to keep back my tears.

"I believe in humans, I believe in humans, I believe in..." At the moment, a woman came along to the footbridge. Before my eyes, she chucked an empty can. It grazed my face, and fell beneath the footbridge. "I...believe..." A tear rolled down my cheek.

Since then I had been bustling about trying to make people reconsider the state of this planet. One occasion, I came across a lot of happenings. A boy blackmailed an old woman. A woman was beaten black and blue by her husband. A man picked a fight with a complete stranger, by the only reason being that a stranger's shoulder had touched his lightly. To my dismay, nobody tried to help another. Some people pretended not to see the incident, others remained spectators. I witnessed the terrible aspects of humans. I was depressed completely. Five weeks had passed since I arrived at this planet.

"The Devil's remark was quite right. They think of only their own. I've understood why wars aren't over. Thinking coolly, who will be able to live among people who live now until a hundred years later? Their irresponsible behavior is convincing." I murmured sitting on a sooty shack. The sun was setting. I was looking at it. At that moment, "BOOOOM!" Suddenly, the roof of the shack disintegrated. I fell on my buttocks.

"This is adding insult to injury! ...Why? This floor is awfully soft...oh my!" I jumped back, because I just sat on a man who was exhausted. Of course the man did not notice me, he staggered to his feet. He seemed to

be the owner of this shack.

“Oh darling! Are you alright?!”

A lady ran up to the man. He said with a sad look,

“Honey, I failed again... I’m afraid I may not be able to accomplish this machine. Six years have passed since I started to develop this...The month after next, our baby is due to arrive. Now may be the time for us to resign.” He looked at his wife who was obviously in the family way. She also said,

“Though it is wonderful to solve contemporary energy problems by bringing to completion this machine which can make energy from any garbage... Eventually, we lost our laboratory.” She glanced over their surroundings, which were littered with broken pieces of the roof.

I was amazed at their conversation. That the planet should have people like them! They were anxious about problems. They made efforts to solve them. I heard myself saying,

“Cheer up! Every failure is a stepping stone to success!! You are expecting a child aren’t you? In that case, you never give up all the more!” Then, he lifted his face and said as if he heard my voice.

“I never give up. I want to leave my children the beautiful earth. Now, let’s clear these broken pieces away. I’ll reopen the development from tomorrow, honey.”

The wife smiled, “Ok, we should get a tarpaulin in place of the broken roof” and began to help her husband.

I was stupefied for some time. It was unbelievable that I could encourage people.

“Why? Oh , perhaps...I always appealed to people by saying “Don’t, don’t” before. But this time, I did not use “Don’t.” Oh I see. The important thing is not forbidding but inspiring!” I took wings to the chaotic city with an expectation.

A hundred years later. A graduation ceremony was held in heaven that day. A new angel received his letter of appointment. He smiled as soon as he read it.

“I’m lucky to be fixed to work in such a nice place.”

Your service area is the Earth. Investigate the state of the planet,

and start your work within a week.

[Warning] none.

Concluded

3) 小説を投稿できる掲示板について

第13章：：中級：作文時の気後れを乗り越えるには

この章の内容:

1) 英作文に関するよくある悩みについて

Q&A

Q: 先生のだす英作文の課題をもっと楽しんでする方法はありませんか？

A:

- あなたの関心のある教科について書いてみましょう。(先生のだす課題よりもですが)
- もっと自分の関心のもてるような英作文を書けるようになりたいと先生に個人的に相談してみましょう。

Q: 何について書けばよいのわかりません？

A:

- 自分の関心のある出来事のリストを作ってみましょう。文である必要はありません、キーワードだけのリストで十分です。そうすればきっと良いアイデアが浮かぶでしょう。

このサイトの論文の章で英作文に適切なトピックスについて書いてあるのでそれを参考にしてください。

Q: もっと短い時間で英作文を書けるようになりたいのですが、どうすればいいですか？

A: 課題を課されているという意識を失くして自分の興味のあるトピックについて書いてみましょう、そうすればもっと楽しく簡単にかけるようになるでしょう。

Q: 英作文は苦手です。とてもプレッシャーがかかってしまいます。

A:

- とにかく集中して課題のことを考えましょう。
- そしてとにかく書き始めてみましょう。そうすれば文がつられるようにならずらとでてくるでしょう。
- 休憩をとりましょう。散歩にゆくのもいいです。良いアイデアはじっとしているとなかなか思い浮かばないものです。
- 先生に話してみましょう。先生は快く相談に乗ってくれるでしょう。

Q: 私はなかなか正しい英文を書くことができません。どのようにすれば正しい英文を簡単につくることができますか？

A: 気負いすることはありません。誰もが初めは正しい英文を簡単に書けるわけではありません。通常、後で書き直すことものです。課題や小論文はいくつかのパートに区分けして、ひとつずつ完成させていきましょう。そうすれば自然と正しい英作文がかけるようになります

This section contains:

- 1) An explanation of how to overcome writer's block.

Overcoming Writer's Block

PROBLEM: The teacher gave us a boring writing assignment. What can I do?

ANSWER:

- choose a subject you are interested in (if the teacher will allow it)
- ask your teacher how you can personalize a topic to make it more interesting

PROBLEM: I don' t know what to write about. What can I write about?

ANSWER:

- Make a list of topics which you might be interested in writing about. Do not write full sentences; just make a list; write only key words. You may find a good idea on this list.
- Look at the section of this project which gives suggested writing topics, under "long opinion essays."

PROBLEM: I don' t want to spend time writing. What can I do?

ANSWER:

- Resign yourself to the fact that you have to write the paper. And if you choose an interesting topic, it might be fun!

PROBLEM: I am worried about writing the paper. I feel a lot of pressure

ANSWER:

- Focus your energy by rehearsing the task in your head.
- Just begin to write. Once you get something on paper, other sentences will begin to flow.

・ Get some exercise. Go for a walk or go jogging. Good ideas often appear when doing physical exercise.

・ Talk to your teacher. He or she will be happy to give you some ideas.

PROBLEM: I feel like I don' t want to write anything unless I have it perfectly worded. What can I do?

ANSWER:

・ Ease up on your self-criticism. Nobody write perfect sentences from the start. Everyone writes down something—anything—and then rewrites it later.

・ Break the task up into small assignments. Decide that you will first do one little part. Then things will flow naturally!

第 1 4 章 : : 上級 : 作文 (意見文) を書く (TOEFL によくあるタイプのもの)

この章の内容:

- 1) 作文 (意見文) の書き方について
- 2) 作文の例
- 3) 作文に使いやすいトピックスのリスト
- 4) 作文が投稿できる BBS について

1. 作文（意見文）を書く（TOEFLによくあるタイプのもの）

あなたの考えるおもしろい提案について書いてみましょう。しばしば新聞の編集者宛の手紙などにあるこのような意見文は TOEFL によくある形のもので、またこのような作文がかけるようになるということは職場や学業の面でもとても有意義なことです。

この章の内容:

- 長文、正式な文、意見文を書くうえでの決まりごと
- 作文の例
- 作文にお勧めのトピックス

決まりごと

下記の（1）～（5）は5段落もしくは8段落の作文の基本的な構成です。それぞれの段落についての簡単な決まりごとを読んでみましょう。また、例文を読んでみて自分で作文を書く練習をしてみましょう。

- 1) 一般的な意見や事実から書き始めましょう。あなたの意見をはじめに書いてはいけません。C1, A1
- 2) そして1段落目の最後にあなたの意見を簡潔に書きましょう。これは **thesis statement**（論題）と呼ばれます。C2, A2, W1
- 3) 続く段落にはそれぞれあなたの論題を有力なものとする主な理由をひとつずつ挙げましょう。C3, A3, W2
- 4) その主な理由は段落のはじめに簡潔に書きましょう。このはじめの文は **topic sentence** と呼ばれます。C4, A4, W3
- 5) 5か6番目くらいの段落には反論となる意見を少し書きましょう。C5,

A5

6) After doing step 5 above, quickly use a word such as “but”, “however” or “yet”, and state why that opposing opinion is wrong.

See: C6, A6

7) In the first sentence of your final paragraph, restate your thesis statement. See: C7, A7, W4

8) In the final couple of sentences of the essay, summarize your main points. See: C8, A8

This section contains:

- 1) An explanation of how to write long opinion essays.
- 2) Examples of long opinion essays.
- 3) A list of interesting essay topics.
- 4) A Bulletin Board for students to write their own essays.

Writing Longer Opinion Essays (A Typical TOEFL Essay)

Writing a formal essay which expresses your opinion is a fun activity! Such writing can be submitted to a newspaper as a Letter to the Editor, is commonly used on the essay section of the TOEFL, or can be used when writing a persuasive letter to a boss or a colleague in a business setting.

This section contains the following parts:

- Rules for writing longer, formal, opinion essays

- Examples of opinion essays.
- Suggestions for writing topics

Rules

Below are some basic rules regarding the organization of a typical 5-8-paragraph persuasive essay. Read these easy-to-understand rules, look at the example essays, and then practice writing your own persuasive essay!

- 1) Begin the essay with a general statement or a fact. Do not begin a long essay by stating your opinion. See: C1, A1
- 2) At the end of the first paragraph, clearly state your opinion. This is called the thesis statement. See: C2, A2, W1
- 3) Each paragraph should have one major reason which supports your thesis statement. You can begin these paragraphs with words such as *First*, *Second*, or *Third*. But do not overuse that style. It is very good to begin these paragraphs with expressions such as *To begin with*, *For starters*, *Also*, *In addition*, or *Likewise*. See: C3, A3, W2
- 4) The main idea of each paragraph should be clearly stated in the first sentence of that paragraph. This is called the topic sentence. See C4, A4, W3
- 5) In about the fifth or sixth paragraph, write a little about the opposing side's opinion. See: C5, A5
- 6) After doing step 5 above, quickly use a word such as "but", "however" or "yet", and state why that opposing opinion is wrong. See: C6, A6

7) In the first sentence of your final paragraph, restate your thesis statement. See: C7, A7, W4

8) In the final couple of sentences of the essay, summarize your main points. See: C8, A8

Key to Abbreviations

C = Cigarettes are Good

A = Air Conditioners are Not Needed

W = Westerners Should Not Waste Time Learning How to Write Kanji

2. 小作文の例

I.

Cigarettes are Good

A lot of people talk about the bad influences of cigarettes these days.(1) They usually point out problems that smoking does to a smoker's health, and that non-smokers cannot avoid smoke when smokers are around them. But I think cigarettes are not so bad for the following reasons.(2)

First,(3) smoking calms smokers and lightens stress. Nervousness and stress often decrease the working efficiency of workers. To keep a mind calm and do a good job, cigarettes are able to play an important role for some people.

Second, recently non-smoker's rights have been protected

enough.(4) Only in small public places called “smoking areas” are smokers allowed to smoke. So, non-smokers can live daily life enough without breathing any smoke against their will.

Some people say that cigarettes are one of the causes of cancer.(5) However,(6) even non-smokers have not a few possibilities to suffer from cancer in the future. So I think cigarettes are not so bad because to be under stress has a lot of demerits such as decreasing working efficiency and even harming health more.

In conclusion, I think cigarettes should not be blamed to the extent they are today.(7) They keep smokers’ minds stable, increase working efficiency, and may even do mental health good. In addition, non-smokers can avoid smoke even in public places.(8)

II. Air Conditioners are NOT Needed

Nowadays a lot of people want to live comfortably.(1) In summer, people make their rooms cool and in winter they make them warm by using air conditioners. But, I think that Hirodai should not install air conditioners in classrooms.(2)

To begin with,(3) air conditioners harm peoples’ health. For example, their skin, eyes, and throats become dry. Moreover, it is difficult for people to adapt to the changes of temperature between indoors, where air conditioners are used, and outdoors.

Next, the cost of electricity is high.(4) Hirodai is big and there are a lot of classrooms. So a lot of air conditioners are necessary. In short,

without them, the cost of electricity would go down.

Finally, a lot of carbon dioxide is discharged by consuming electricity when people use air conditioners. Carbon dioxide causes global warming. In electric household appliances the rate of discharging carbon dioxide by using air conditioners is high. (See figure)

[Figure] consuming quantity of electric house hold appliances in 1990

Refrigerat or 26.4	Light 18.6	AC 12.6	TV 11.3	5. 8	3. 6	3. 5	1. 5	1. 4	0. 7	Othe rs 13.1
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- 5.8 -foot warmer
- 3.6 -iron pot
- 3.5 -cleaner
- 1.5 -blanket range
- 1.4 -washing machine
- 0.7 -fan
- (%)

So it is too dangerous to depend on air conditioners.

Air conditioners are widely used all over the country, and there is at least one air conditioner in each family.(5) Most people use them. However,(6) I think that natural temperature is best.

Using air conditioners has a big influence on human health, economic conditions, and a natural environment.(7) This is why Hirodai should not equip classrooms with air conditioners. People at Hirodai should enjoy Japan's four seasons.(8)

III.

Westerners should not waste time learning how to write kanji

Most westerners living in Japan are WASTING THEIR TIME if they study for the Kantei. Instead, they should devote their energies toward studying for the Nihongo Noryoku Shiken, 1st level!(1)

It is an established linguistic fact that writing kanji uses a totally different part of the brain compared with learning Japanese speaking, listening, and reading skills.(2) For proof of this, just look at the large number of westerners who are good at speaking, or listening, or reading, but cannot write more than a handful of kanji. Learning to write kanji is similar in value to the art of shodo. Writing ability has some value in itself as an art, and there is a slight transfer of ability into the reading, speaking, and listening skills, but those many, many hours that it takes to learn writing could better be spent reading, speaking or listening to Japanese.

The reason has to do with GOALS.(3) Most westerners in Japan, for their jobs and daily lives, need to be able to speak, read, and listen to Japanese. They rarely need to write kanji. And when they do need to write, if they are good at reading, they can skillfully use a computer.

I really enjoy reading. In Japanese, I read about history, science, and politics. If I had to study hour after hour about how to write kanji, I would know a lot LESS about Japanese culture.

In summary,(4) if you want be a so-so painter and a so-so Japanese speaker, then study for the Kantei. But, if you want to be a GOOD Japanese listener and reader, then you should study for the Nihongo Noryoku Shiken, 1st level.

3. Examples of Controversial Issues and Minority Opinions

論争の元となるような意見や少数意見について書いてみましょう！

少数派の意見について論文を書くというのは非常におもしろいことです。例えば、ほとんどの人は「平和は大切なことだ。」と考えています。もし、あなたが「平和は大切である。」ということ論じた記事を見つけたとしたら、あなたはつまらないと感じるかもしれません。しかし、もしあなたが少数派の意見を・・・例えば、「戦争は時に必要なことである。」と書いたならば論文は非常に興味深いものとなるでしょう

下記のリストは論争を元となるような意見と、少数意見のリストです。

- 1) Atomic energy is good.
- 2) Japan should open its rice market completely.
- 3) The Liberal Democratic Party is good.
- 4) Hiroshima University should not install air conditioners in classrooms.

- 5) Japan should break all relations with the U.S.
- 6) The Social Democratic Party is the best.
- 7) Japan should send a lot of money to help the former Soviet Union.
- 8) Japan should allow foreign workers to enter the country very easily.
- 9) Japan should spend a lot of money to send a manned spaceship to Mars.
- 10) Cigarettes are good.
- 11) School uniforms are good.
- 12) Patients should/ should not be informed that they have cancer.
- 13) All boys-schools and all-girls schools are better than coeducational schools.
- 14) Corporal punishment is a good idea.
- 15) Capital punishment is a bad idea.
- 16) Organ transplants are a bad/good idea.
- 17) Abortion should be made illegal.
- 18) Men and women are not equal/ Women should stay home.
- 19) Voluntary euthanasia is a bad idea.
- 20) Japan's education system is good/bad.

哲学、科学。宗教、経済、社会学やニュースなどにも論争の元となるような意見はたくさんあります。どれかひとつを選んで創造的な思考であなたの自身の意見を書いてみましょう！

There are many other controversial issues in politics, science, religion, business, sociology and the news. Be creative and

choose one of your own ideas!

4. Bulletin Board for

第 1 5 章 : : 上級 : 論文を書く

Writing Thesis and Research Papers

This section contains:

- I. How to write research papers.
- II. Fifty Expressions Often Used in Thesis Papers
- III. Abstracts
- IV. References. (Avoiding Plagiarism.)
- V. Examples of research papers.

Section 1

1. How to Write Research Papers

For a Key to the Abbreviations, see the bottom of this page.

Common Logic Found in Thesis Papers

i. Introduction—

The opening section usually has a few of the following characteristics.

1) Papers often begin with a general statement of fact. The first sentence often states a problem which exists in the scholastic field. This is NOT your opinion, and it is NOT the main point of the paper. For examples, look at these opening statements: P1, E1, B1, G2, Geo1, M2

2) A sentence in the introduction narrows down the problem: P2, E2, B3, Geo2, M3

3) One or two additional sentences continue to explain about the problem: P3, B4, G3, Geo3

4) Often the introduction states that there has been a lack of research: P4, B5

5) A sentence in the introduction often states a traditional, established finding in the field: P5, E3, G4, Geo4

6) Often there are one or two sentences explaining about more recent findings: P6, E6, B2, G5, Geo5

7) The main idea of the whole paper is clearly stated. Sometimes it is the final sentence of the first paragraph. Sometimes it is the first sentence of the final paragraph in the introduction. See: P7, E7, B6, G6, Geo6, M4

ii. Body

1) Gives more background, reviewing the literature. In a short paper, this step might be skipped. G7, Geo 7

- 2) Explains materials and methods: E8, B7, Geo8, M5
- 3) Every sentence in each paragraph supports the first sentence in the paragraph. P10, E9, B8, M6

iii. . Conclusion

The concluding section usually has a few of the following characteristics.

- 1) A statement summarizes what the author has done above. P8, G8, Geo9, M7
- 2) And the author goes on to discuss relevant points P9, M8
- 3) Summarizes the current situation. P11
- 4) Papers often end on a note of hope, or on a warning of danger to come. P12
- 5) A statement explains the usefulness or uniqueness of the findings. E10, B9
- 6) A statement explains what needs to be done in the future. E11, B10, Geo10, Geo11, M9

Key to the Abbreviations:

B = Biology “Betanodavirus as a novel transneuronal tracer for fish” by Takanori Ikenaga, Yuki Tatecho, Toshihiro Nakai, Kazumasa Uematsu.

E = Engineering “ Colloid Release Velocities in Soil Columns during Short- and Long-term Multiple Irrigation Events” by Masaharu Motoshita, Toshiko Komatsu, Per Moldrup, Noriatsu Ozaki, Lis W. de Jonge.

G = Genetics “Metabolic significance and expression

of *Caenorhabditis elegans* type II 3-oxoacyl-CoA thiolase” by Masanori Bun-ya, Motohiro Maebuchi, Summanuna H. Togo, Takao Kurosawa, Takashi Hashimoto, and Tatsuyuki Kamiryo.

Geo = Geology “Zinc-rich Pyrite from the TAG Active Mound, the TAG Hydrothermal Field, Mid-Atlantic Ridge” by Su Young Lee, Masatsugu Ohnishi, Yasuhiro Shibata, Makoto Watanabe, Kenichi Hoshino, Mayumi Jige, Xiangping Gu, Hitoshi Chiba, Tamotsu Oomori, Kantaro Fujioka and Peter A. Rona.

M = Mathematics “INSET as a Tool for Improving Mathematical Competence: Analysis of the Teachers’ Performance Before and after a Training Program” by Teresita Bambico.

P = Psycholinguistics “The Myth of Absence of Dyslexia in Japan” by Jun Yamada

Section 2

II. Fifty Expressions and Sentence Structures Often Used in Thesis Papers

Note: *However*, *But* and *Also* appear with very great frequency throughout thesis papers, so they are not included here.

Although, Though, In spite of-- B102, Geo101, Geo109, Geo111, M112, M116, M132

Among others-- M105

As regards to—See *With regards to*.

Briefly—B117, Geo117

Certainly-- P102

Correlation between—E128, Geo118

Due to—B115, Geo119, Geo120, M153

e.g.-- Means “for example” Geo103, Geo105, Geo106, Geo113, Geo114

First, Second, Third-- P100

For example-- P106

From these and other evidences—See *Thus*.

Further, Furthermore, In addition, Moreover (Note: Equals *Also* in meaning,

which is not included here because it is so frequent)-- P103, P104, E115, E117, E122, B107, B111, B112, G102, Geo104, Geo107, M108, M115

Furthermore—See *Further*.

i.e., This is an abbreviation for the Latin *id est*, meaning “that is” or “in other words” or “in simpler terms.” Note the two periods and the comma mark.E108, E112

Hence—See *Thus*.

In addition (to)—See *Further*.

In contrast-- B101

In fact—M147

In general—Geo112, M142

In order to-- B100, B105

In other words , That is to say that, That is,-- E111, E119, M114, M118,

M119, M141

In particular-- Geo102, Geo115, M102

Interestingly—M125

In the field of—B114

In (the) future studies—E135

In the case of, In this case—M127, M135

In the meantime-- G104

(In) the (present) study, (In) this study, The (present) paper, This paper—B116, B118, B120, E118, E125, E129, E130, E133, E137, G107, Geo116, M130, M131, M133, M134, M136, M153

In this light—M101

It is pointed out that—Geo121, Geo122

It can be gleaned that—See *These findings suggest that.*

Lastly—M128

Level of significance—See *significant.*

Moreover—See *Further.*

More specifically—See *In particular*

not only... but also -- P101, M104

On the other hand-- E113, E120, B108, Geo110, M120, M148

Recently-- Almost always (99% of the time) requires present perfect tense in thesis papers. E110, E124, E126

Respectively -- P107, G103, M117, M121, M146, M151

Significant (statistical difference), level of significance—M137, M138, M143, M144, M145, M149, M150

That is (to say that)—See *In other words*

The present paper—See *In the present study*.

Thereby—See *Thus*.

Therefore—See *Thus*.

These findings suggest that, These results suggest that, This indicates that, It can be gleaned that-- G105, B113, M139, M140

These results suggest that—See *These findings suggest that*.

This indicates that—See *These findings suggest that*.

This paper—See *In the present study*.

Though—See *Although*.

Thus, Therefore, Thereupon, Hence, From these and other evidences—

P109, E114, E116, E121, E123, E125, E132, E136, B103, B109,
B110, G101, G102, Geo108, Geo114, M103, M106, M109, M110,
M111, M113, M129

While—M122, M123, M124, M126, E131

With regards to, As regards to, With respect to-- M107, E134

With respect to—See *With regards to*.

∴ A semicolon almost always has an independent SVO sentence after it.

That second sentence explains the first sentence in more detail:

G106, P105. A second less-common use of a semicolon is to divide a list of things : B119

∴ Colons are usually preceded by an SVO sentence, and a list of nouns must follow the colon. See B104, B106, E127

Section 3

III Abstracts

Abstracts are usually one paragraph in length, and they contain the following characteristics: 1) State the goal of the research. 2) State the experimental method used. 3) State the results, and the importance of the results.

For more details, see the section of this Web site which explains about writing single paragraphs. For actual examples of abstracts, see B13, G1, Geo11, M1

IV. References

It is illegal and immoral to plagiarize. If you use the unique ideas of another person, or if you use more than two consecutive words which that person has written or said, then you must publicly give credit to that person.

References

- Bader, M (2000). Choosing CALL software: beginning the evaluation process. *TESOL Journal*, 9, 2: 18-22
- Brandl, K.K. (1995). Strong and weak students' preferences for error feedback: Options and responses. *The Modern Language Journal*, 79, 194-211.
- Brett, P. (1997). A comparative study of the effects of the use of multimedia on listening comprehension. *System*, 25, 1:39-53
- Yamamori, N. (2002) Communicative Language Teaching の実現を促す 英語科組織の経営特性—高等学校の英語科経営に関する質問紙調査を通し

て—(Organization Effectiveness of Upper Secondary School English Language Departments and Their Commitment toward Communicative Language Teaching). *JALT Journal*, 24, 1: 33- 47.

(Note: If Japanese, try to translate the name, and put the translation in parenthesis after the Japanese.)

V. Examples of Research Papers.

(作業用 of instruction : それぞれの論文は別ページにし、ここに目次に当たるリンク付きの小見出しをつける)

Betanodavirus as a novel transneuronal tracer for fish**

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<http://www.sciencedirect.com/science/journal/03043940>

Abstract(13)

In order to(100) obtain a potential new tool to analyze networks of the central nervous system of teleost fishes, we tested a fish-pathogenic betanodavirus, sevenband grouper nervous necrosis virus (SGNNV), as a transneuronal tracer using the freshwater angelfish *Pterophyllum scalare* as a test animal. Intravitreal injections of SGNNV into the right eye resulted first in the labelings of neuronal cell bodies in the ganglion cell layers of the retina and then those in the inner and outer nuclear layers in sequence. For the first time, labeled neurons were found also in the stratum periventriculare of the contralateral optic tectum, the ventrolateral and ventromedial thalamic nuclei, and the periventricular nucleus of posterior tuberculum in the brain, then the periventricular pretectal nucleus pars dorsalis and pars ventralis. In contrast,(101) by injections of biotinylated dextran amine into the eye no labeled cell bodies were observed in these brain areas, but axons and terminals were labeled anterogradely. These results suggest that(113) the virus could be transported in both directions in axons of the first order neuron and transacted the second and third order neurons by passing across synaptic clefts, and that this technique is practically applicable to the study of neurobiology in teleost.

Keywords: Betanodavirus; Transneuronal tracer; Teleost; Retinal projection; Tract tracing technique; Angelfish; Viral nervous necrosis

In the field of(114)neurobiology, tract tracing is an indispensable technique to analyze neural networks in the central nervous system using neuronal tracers, which are transported in neurons by the axonal transport mechanism.(1) Due to(115) a series of recent improvements in this technique, several neuronal tracers such as horseradish peroxidase (HRP), biocytin, and dextran amine have been put to practical use to label whole neurons including their soma, dendrites, axons and synaptic terminals [21].(2) However, these methods provide inherently limited information regarding only single neurons that take in tracers, not neural networks, with the few exceptions that biocytin and neurobiotin can be transported through the gap junction because of their small molecular size [3, 4].(3) Although(102) wheat germ agglutinin conjugated with horseradish peroxidase (WGA-HRP) has been used as a transneuronal tracer [1], it usually results in weak labelings of recipient neurons because the tracer taken in is gradually diluted in the way of the transportation. [21]. Thereupon.(103) in studies of mammals, a variety of neurotropic viruses such as pseudorabies virus (PRV) and herpes simplex virus (HSV) have been used to overcome these problems [12, 17]. These neurotropic viruses are ideal as transneuronal tracers because they infect and spread within chains of synaptically linked networks of neurons and once they infect a neuron, they replicate within it [12, 17].(4) In fishes, however, there have yet been no studies using viral transneuronal tracers.(5)

Betanodaviruses cause in a variety of marine fish a disease called viral nervous necrosis, which is one of the major problems faced by

marine aquaculture throughout the world [14, 15]. This virus is an unenveloped, icosahedral capsids (25 to 30 nm in diameter), and the genome is composed of bipartite, single-stranded, positive sense RNA molecules [11, 13]. At present the virus can be divided into four genotypes based on the nucleotide sequences of the coat protein gene: (104) the striped jack (SJ) type, tiger puffer (TP) type, barfin flounder (BF) type, and red spotted grouper (RG) type [16]. The RG genotype has the widest natural host spectrum among the four genotypes. Betanodaviruses are neuropathogenic and inflict conspicuous damage characterized by vacuolation and degeneration of neurons throughout the central nervous system including the retina. These symptoms suggest that the viruses, once they infect a neuron, replicate there and are transported across a synapse to the next neurons in the same manner of PRV and HSV. This feature inspired us to test the virus for the use as a transneuronal tracer for fishes. In the present study, (116) the possibility of a betanodavirus, sevenband grouper nervous necrosis virus (SGNNV; RG genotype) as a transneuronal tracer has been examined in the angelfish (*Pterophyllum scalare*). (6) There have been no reports that freshwater fish are susceptible to the betanodavirus, but we confirmed preliminarily that SGNNV can multiply in the central nervous tissues of the angelfish.

The virus inoculum of SGNNV (strain SGWak97) was prepared from naturally infected juveniles of the sevenband grouper *Epinephelus septemfasciatus* as described previously [9]. (7) Briefly, (117) the infected brains of fish were homogenized with Hanks' balanced salt

solution (HBSS) and then centrifuged at 1200 x g for 10 min. The supernatant was filtered and stored at -80 °C until used. Thirty-three angelfish ranging from 23.5-43.8 mm in body length were used in this study. Fish were anesthetized by immersion in a solution of 150 ppm tricaine methanesulfonate (MS-222), then 5 μ l of the virus filtrate in HBSS ($10^{10.8}$ TCID₅₀ /ml) was injected into the vitreous body of the right eye using a microsyringe (Hamilton, 10 μ l). After 6, 12, 15, 18, 21, 24, and 48 h survival periods, the eyes and brains were removed and fixed in Bouin solution (saturated picric acid : formalin : acetic acid = 15: 5: 1). After the fixation, the tissues were embedded in paraffin and sectioned transversely at 10 μ m. Sections were pre-incubated in 0.3% H₂O₂ in methanol, then reacted with diluted normal goat serum (Vector Laboratories, Inc.). The presence of SGNNV in sections was detected immunologically by incubation with a rabbit antibody against striped jack nervous necrosis virus (SJNNV), the type species of the betanodavirus [2] at a dilution of 1: 1000 with 1% bovine serum albumin. A close antigenic relation between SGNNV and SJNNV has been demonstrated and anti-SJNNV rabbit serum has been used for detection of SGNNV [9]. Following an overnight incubation at room temperature, the sections were incubated with a biotinylated goat anti-rabbit IgG (Vector Laboratories, Inc.) and then avidin-biotin horseradish peroxidase complex (Vector Laboratories, Inc.). Infected neurons were visualized with 0.05% diaminobenzidine (DAB) in 0.05M Tris-HCl buffer (pH 7.4). The sections were counterstained with thionin, dehydrated, cleared, and coverslipped. In order to(105) compare with the labelings with a

conventional tracer and to identify the primary projection site from the retina, intact fish were anesthetized and 15% biotinylated dextran amine (BDA, Molecular Probes) was injected into the right eye in the same manner as the virus injection. After a 48 h survival period, the brains were removed and fixed in 1% glutaraldehyde and 4% paraformaldehyde in 0.1M phosphate buffer (pH 7.4). After fixation, the brains were embedded in 15% gelatin and sectioned on a microslicer (DTK-1000, DSK Inc., Kyoto) at 60 μ m. These sections were first treated with 0.3% H₂O₂ in methanol, and then incubated with 0.2% ExtrAvidin (Sigma) for 1 h. The sections were reacted with 0.04% DAB containing 0.025% CoCl₂, 0.025% NiCl₂ and mounted. They were then counterstained, dehydrated, cleared, and coverslipped.

In the experiment in which BDA was injected into the eye, labeled axons and terminals were observed in following sites in the contralateral brain (Table 1):(106) the stratum opticum (SO), stratum fibrosum et griseum superficiale (SFGS), and a boundary of the stratum griseum centrale (SGC) and stratum album centrale (SAC) of the optic tectum (TeO, Fig. 2a), ventrolateral and ventromedial thalamic nucleus (VL and VM), dorsal and ventral periventricular pretectal nucleus (PPd and PPv), nucleus of accessory optic tract (nAOT), nucleus paracommissuralis (NPA), and periventricular nucleus of posterior tuberculum (TPp, Fig. 2c). In these areas, no neuronal cell bodies labeled retrogradely were observed.(8)

In the experiment in which SGNNV was injected into the eye (Table 1), labeled cell bodies were observed for the first time in the ganglion cell

layer (GCL) in most cases and rarely in the inner nuclear layer (INL) after 15 hours of survival (Fig. 1a). Following 18 hours of survival, labeled areas were spread into the inner and outer nuclear layers (ONL) at the rather central retinal area (Fig. 1b). In the brain, labeled neuronal cell bodies were observed first in the contralateral stratum periventriculare (SPV) of the TeO (Fig. 2b), VM, VL, and TPp (Fig. 2d) after 18 hours of survival. After 21 hours of survival, neuronal cell bodies were also labeled in the PPd and PPv. After 24 hours of survival, labeled neuronal cell bodies appeared also in the torus longitudinalis (TL), habenular nucleus (Ha), parvocellular superficial pretectal nucleus (PSp), parvocellular preoptic nucleus posterior part (PPp), NPA, nAOT, and nucleus lateralis valvulae (NLV) in addition to the areas stated above. Furthermore,(107) after 48 hours of survival, labeled neuronal cell bodies were observed also in the telencephalon (TE), hypothalamus (dorsal zone of periventricular hypothalamus, Hd;(119) ventral zone of periventricular hypothalamus, Hv), nucleus of medial longitudinal fascicle (NMLF), cerebellum (corpus cerebelli, CCe; lobus caudalis, LCa; eminentia granularis, EG), medial octavolateralis nucleus (MON), and the medullary reticular formation (RF).

In the present study,(118) SGNNV injections into the eye resulted in labelings of neural cell bodies in the SPV of the contralateral TeO. On the other hand,(108) there were no labeled cell bodies in the TeO in specimens injected with BDA, but only labeled fibers and terminals were found in the SO, SFGS, SGC, and SAC. These are known to be terminal areas projected from the retina in teleosts [20], and the SPV neurons

receive this projection on their dendrites [7]. Therefore,(109) it is suggested that SGNNV taken into retinal ganglion cells are transported in the optic nerve to the axon terminal in the brain, pass across the synapse and infect SPV neurons. In some other areas, such as the PSp, PPp, VL, VM, PPd, PPv, nAOT, NPA, and TPp, labeled somas were also observed. The PSp and PPp were suggested as the first projection sites in the diencephalon from the retina in *Lepomis cyanellus* [18]. However, no projections to these areas were observed. This might be due to the short survival time after BDA injection.

Retinopetal neurons exist in the telencephalon and preoptic area in many teleosts [19]. Therefore,(110) labelings of neuronal somas in the TE and PPp might be results of the retrograde labeling.

The retinal ganglion cells receive the projections of the bipolar cells and amacrine cells in the INL, and these neurons contact the photoreceptor in the ONL [6]. In the retina, labeled cell bodies were observed first mainly in the GCL, then also in the INL and ONL, suggesting that SGNNV was also transported and transfected retrogradely.

In every specimen injected with SGNNV, no labeled axons and terminals were observed. This result might arouse a suspicion whether brain neurons were infected with the virus diffused through the circulation of the blood. However, the fact that retinal ganglion cells were labeled first and the authentic second order neurons were next suggests that the virus is transported across synapses. In addition,(111) if the virus was transported by the blood, labeled neurons would be observed in the whole brain areas unrelated with the retinal

projection in a short period of time. However, labeled neurons were found in a few restricted specific areas. In many teleosts, the retinal projection to the TeO is completely crossed [5, 8, 18] as observed by BDA injection in this study, and labeled neuronal cells by SGNNV injection were observed mainly contralaterally, strongly suggesting that the virus is not transported via the circulation. Furthermore,(112) in a preliminary experiment where the nodavirus was injected into axial muscles, numerous viruses were isolated from the brain and spinal cord using a fish cell line E-11 [9] that was routinely used for the detection of the nodavirus, but not from the blood (unpublished data).

The present study(120) is the first report to demonstrate the effectiveness of the SGNNV as a transneuronal tracer for fish.(9) Further studies are essential to reveal direct evidence that the SGNNV is transported across the synapse.(10)

- [1] Baker, H. and Spencer, R.F., Transneuronal transport of peroxidase-conjugated wheat germ agglutinin (WGA-HRP) from the olfactory epithelium to the brain of the adult rat. *Exp. Brain. Res.*, 63 (1986) 461-473.
- [2] Ball, L.A., Hendry, D.A., Johnson, J.E., Rueckert, R.R. and Scotti, P.D. Family Nodaviridae. In M.H.V. van Regenmortel, C.M. Fauquet, D.H.L. Bishop, E.B. Carstens, M.K. Estes, S.M. Lemon, J. Maniloff, M.A. Mayo, D.J. McGeoch, C.R. Pringle, R.B. Wickner (Eds.), *Virus Taxonomy, Classification and Nomenclature of Viruses*, 7th edn, Academic Press, San Diego, CA, 2000, pp.747-755.
- [3] Bass, A.H., Marchaterre, M.A. and Baker, R., Vocal-acoustic pathways in a teleost fish. *J. Neurosci.*, 14 (1994) 4025-4039.
- [4] Bass, A.H., Horvath, B.J. and Brothers, E.B., Nonsequential developmental trajectories lead to dimorphic vocal circuitry for males with alternative reproductive tactics. *J. Neurobiol.*, 30 (1996) 493-504
- [5] Collin, S.P., Anterograde labelling from the optic nerve reveals multiple central targets in the teleost, *Lethrinus chrysostomus* (Perciformes). *Cell. Tissue. Res.*, 256 (1989) 327-335.
- [6] Hawryshyn, C.W., Vision. In D.H. Evans (Eds.), *The physiology of fishes*, second edition, CRC Press, New York, 1998, pp. 345-374.
- [7] Ito, H., Butler, A.B. and Ebbesson, S.O.E., An ultrastructural study of the normal synaptic organization of the optic tectum and the degenerating tectal afferents from retina, telencephalon, and contralateral tectum in a teleost, *Holocentrus rufus*. *J. Comp. Neurol.*, 191 (1980) 639-659.

- [8] Ito, H., Vanegas, H., Murakami, T. and Morita, Y., Diameters and terminal patterns of retinofugal axons in their target areas: An HRP study in two teleosts (*Sebastiscus* and *Navodon*). *J. Comp. Neurol.*, 230 (1984) 179-197.
- [9] Iwamoto, T., Mori, K., Arimoto, M. and Nakai, T., High permissivity of the fish cell line SSN-1 for piscine nodaviruses. *Dis. Aquat. Org.*, 39 (1999) 37-47.
- [10] Iwamoto, T., Nakai, T., Mori, K., Arimoto, M. and Furusawa, I., Cloning of the fish cell line SSN-1 for piscine nodaviruses. *Dis. Aquat. Org.*, 43 (2000) 81-89.
- [11] Iwamoto, T., Mise, K., Mori, K., Arimoto, M., Nakai, T. and Okuno, T., Establishment of an infectious RNA transcription system for Striped jack nervous necrosis virus, the type species of the betanodaviruses. *J. Gen. Virol.*, 82 (2001) 2653-2662.
- [12] Loewy, A.D., Viruses as transneuronal tracers for defining neural circuits. *Neurosci. Biobehav. Rev.*, 22 (1998) 679-684.
- [13] Mori, K., Nakai, T., Muroga, K., Arimoto, M., Mushiake, K. and Furusawa, I., Properties of a new virus belonging to Nodaviridae found in larval striped jack (*Pseudocaranx dentex*) with nervous necrosis. *Virology.*, 187 (1992) 368-371.
- [14] Munday, B.L. and Nakai, T., Special topic review: nodaviruses as pathogens in larval and juvenile marine finfish. *World. J. Microbiol. Biotechnol.*, 13 (1997) 375-381.
- [15] Munday, B.L., Kwang, J. and Moody, N., Betanodavirus infections of teleost fish: a review. *J. Fish. Dis.*, 25 (2002) 127-142.

- [16] Nishizawa, T., Furuhashi, M., Nagai, T., Nakai, T. and Muroga, K., Genomic classification of fish nodaviruses by phylogenetic analysis of the coat protein gene. *Appl. Environ. Microbiol.*, 63 (1997) 1633-1636.
- [17] Norgren JR, R.B. and Lehman, M.N., Herpes simplex virus as a transneuronal tracer. *Neurosci. Biobehav. Rev.*, 22 (1998) 695-708.
- [18] Northcutt, R.G. and Butler, A.B., Retinofugal and retinopetal projections in the green sunfish, *Lipomis cyanellus*. *Brain. Behav. Evol.*, 37 (1991) 333-354.
- [19] Uchiyama, H., Centrifugal pathways to the retina: Influence of the optic tectum. *Vis. Neurosci.*, 3 (1989) 183-206
- [20] Vanegas, H. and Ito, H., Morphological aspects of the teleostean visual system: a review. *Brain. Res. Rev.*, 6 (1983) 117-137.
- [21] Vercelli, A., Repici, M., Garbossa, D. and Grimaldi, A., Recent techniques for tracing pathways in the central nervous system of developing and adult mammals. *Brain. Res. Bull.*, 51 (2000) 11-28.

Figure legends

Table 1. Latency of the viral tracer after intravitreal injection in the angelfish, and the brain and retinal structures where terminals terminals labeled with biotinylated dextran amine (BDA) and neurons labeled with the betanodavirus (SGNNV) were observed. Symbols indicate positive (+) or negative (-) labeling. For abbreviations for brain and retinal areas, see text. ND: not done.

Fig. 1. Photographs showing virus-positive cells (arrowheads) in the angelfish retina at 15 hours (a) and 18 hours (b) survival after intravitreal injection. GCL, ganglion cell layer; INL, inner nuclear layer; ONL, outer nuclear layer. Scale bar, 100 μm

Fig. 2. Photographs of transverse sections of the angelfish brain after intravitreal injection of biotinylated dextran amine (a, c) and the betanodavirus (b, d). Labeled axons and terminals (arrowheads) are observed in the SO, SFGS, and a boundary of the SGC and SAC of the optic tectum (a) and TPp (c). Labeled cell bodies (arrowheads) in the SPV of the optic tectum (b) and TPp (d). For abbreviations for brain areas, see text. Scale bar, 100 μm

SPECIAL NOTES FOR THIS PAPER

9) Notice how this paragraph has only one main point: How the

experiment was conducted. Normally such an important topic would be spread over a few paragraphs, but this paper is so short that the experimental method could be described in one paragraph.

COLLOID RELEASE VELOCITIES IN SOIL COLUMNS DURING SHORT- AND LONG-TERM MULTIPLE IRRIGATION EVENTS

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Introduction

Knowledge of the transport behavior of contaminants through subsurface soil is necessary for preservation of soil and groundwater resources.(1) Strongly sorbing contaminants (heavy metals, phosphorus, some pesticides, some volatile organic chemicals (VOCs) and some polycyclic aromatic hydrocarbons (PAHs)) may be transported through the vadose zone bound to mobile soil colloids, i.e. (108) by colloid-facilitated transport.(2) Recently,(124) great attention has therefore

(125)been on both colloid transport and colloid-facilitated transport of strongly sorbing contaminants through soil (Grolimund et al., 1996; Kretzschmar et al., 1999; McCarthy et al., 1989; Ouyang et al., 1996).(3)

Our previous works (Motoshita et al., 2001, 2002a) investigated the leaching behavior of inorganic and organic colloids and dissolved organic matter through soil columns and the influence of selected factors (irrigation intensity, soil handling, chemical composition of irrigation solution) on colloids and DOM leaching behavior.(6) In this study,(125) the results are used in a renewed data analysis with the purpose of describing the colloid leaching behavior in more detail.(7) Normalized colloid release velocities (CRV) calculated from the data of the column experiments were plotted against accumulated outflow, to form a so-called CRV fingerprint plot. CRVs at different experimental conditions were compared to better understand the mechanisms of colloid transport in the soil.(7)

Materials and methods(8)

Table 1 Soil texture.

Clay(<5mm)	16.3(%)
Silt(5 - 75mm)	26.1(%)
Sand(75 mm -2mm)	57.6(%)

Table 2 Soil properties.

CEC	10(meq/100g)
TOC	2.39(%)
Olsen-P	93(mgP/kg soil)

Soil columns

Loam soil was taken from the surface (0-20cm) of an agricultural field that had not been recently(126) cultivated, located in Higashihiroshima city. Stainless steel columns (20cm diameter, 30cm length) were inserted and carefully dug out from the surface soil to get intact soil columns. Soil surface was sliced to be smooth and 3 cm glass beads layers (diameter size:(127) 2.79-3.96mm) were placed at both the top and the bottom of the soil layer in order to disperse homogeneously the applied solution into the soil matrix and prevent collapse of particles at the bottom of the layer. For repacked columns, sieved (<2mm) and air-dried soil was packed in stainless steel columns. The actual soil layer depth was 20cm and 3cm layers of glass beads were placed in the same way as for the intact soil columns. Each experiment was carried out with duplicate columns to confirm the accuracy of the results. Soil texture and properties are shown in Table 1 and 2.(9)

Procedure for column experiments

Irrigation solution was prepared with 0.085mM NaCl and 0.015mM CaCl₂ so that its ionic composition was close to that of natural rain. The solution was applied to the soil columns with 10mm/hr or 30mm/hr at selected time periods (between 1 and 6 hrs) after the first drop was collected from the bottom of the soil columns. A total of 3, 6 or 12 irrigations, with 42 hours flow interruption between each irrigation, were applied to each soil column. Effluent was collected at every 30 minutes (10mm/hr) or 10 minutes (30mm/hr). The overview of experimental conditions in the 7 leaching experiments is given in Table 3.

Table 3. Experimental conditions for the seven soil colloid leaching experiments. Duplicate soil columns were used for each experiment. The interval between irrigations was in all cases 42 hr. Solution with 0.085mM NaCl+0.015mM CaCl₂ was used except for Exp.3 (0.1mM CaCl₂) and Exp.4 (0.1mM CaSO₄) and the 12th irrigation in Exp.7. MP=macropores.

Irrigation	1st-3rd	4th-6th	7th	8th	9th	10th	11th	12th
Exp.1 Packed soil, 0MP	10 mm/hr 3hrs							
Exp.2 Intact soil								
Exp.3 Packed soil, 0MP								
Exp.4 Packed soil, 0MP								
Exp.5 Packed soil, 0MP	10 mm/hr 6hrs							
Exp.6 Packed soil, 4MP								
Exp.7 Packed soil, 0MP		30 mm/hr 2hrs	30 mm/hr 8hrs	30 mm/hr 2hrs	10 mm/hr 24hrs	10 mm/hr 60hrs	30 mm/hr 2hrs	30 mm/hr 8hrs*

*Applied solution is 0.255mM NaCl+0.045mM CaCl₂ solution resulting in a sodium concentration that is 3 times higher than in the solution (0.085mM NaCl+0.015mM CaCl₂) used during the other 11 irrigations in Exp.7.

Determination of colloid concentration

Collected effluent from the soil columns was filtrated with a 1mm glass-fiber filter (GA-100, ADVANTEC CO.) and the turbidity of the filtrate was measured. Our previous study investigated the correlation between (128) turbidity and concentration of colloids for the same loam soil used in the present study(129) (Motoshita et al., 2002). Turbidity and colloid concentration were significantly correlated ($R^2=0.83$) and the obtained conversion coefficient from measured turbidity (NTU) into colloid concentration (mg/L) was 0.90.

Colloid release velocity and fingerprint plot

In this study,(130) normalized colloid release velocity (CRV) is introduced as an index for colloid mobilization. Normalized colloid release velocity has the dimension of [mg colloids/(mm water) (m^2 soil)] and is calculated as

$$\text{CRV}(\text{Colloid Release Velocity}) = (Q_2 - Q_1) / (F_{12} \cdot SA).$$

[1]

where Q_1 and Q_2 [mg colloids] are accumulated colloid leaching at two consecutive sampling times (t_1 and t_2), F_{12} [mm water] is the difference in accumulated outflow between t_1 and t_2 , and SA [m^2 soil] is the cross-sectional surface area of the soil column. In other words,(111) CRV is a measure of the amount of colloids released per unit of outflowing water and per unit of soil cross-sectional area, i.e.,(112) normalized with respect to both water flow and soil cross-sectional area. The fingerprint

plot is here defined as a plot of CRV versus accumulated outflow of water.

Results and discussion

Soil handling and ionic composition effects on CRV

Colloid release velocities from both intact and packed soil columns are shown in Fig.1. Both CRV curves are increasing but the slope of the CRV curve for packed soil columns is larger than that for intact soil columns. The structure of intact soil has been developed for a long time and therefore has a strong and stable soil structure. On the other hand,(113) packed soil columns have an unstable structure because of the disturbance caused by repacking the soil. Therefore,(114) the packed soil more easily released colloids compared to the intact soil.

In Fig.2, CRV curves during irrigation with three different ionic composition solutions ($\text{NaCl}+\text{CaCl}_2$, CaCl_2 and CaSO_4) are shown. CRVs during application of $\text{NaCl}+\text{CaCl}_2$ solution are higher than for the other two solutions. Furthermore,(115) CRVs for $\text{NaCl}+\text{CaCl}_2$ solution increased with the increase of accumulated outflow while(131) CRVs in the other two cases were almost constant. Sodium will disperse the aggregated soil particles and produce soil colloids. Therefore, (116)the infiltration of sodium solution accelerates the release of colloids from soil matrix. Comparing the cases of CaCl_2 and CaSO_4 application, containing the same cation but different ionic strength, the low ionic strength solution (CaCl_2) mobilized more colloids than the 3 times higher ionic strength solution (CaSO_4), since the electrical

double layer around soil particles will expand with the decrease of ionic strength and counter ion valence.

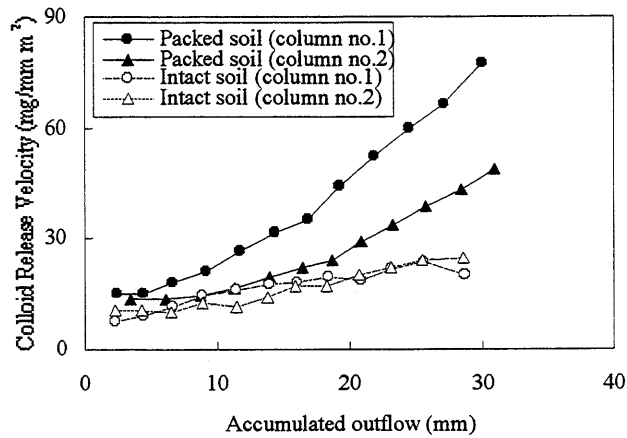


Fig.1 Comparison of CRV (Colloid Release Velocity) from packed soil columns and intact soil columns.

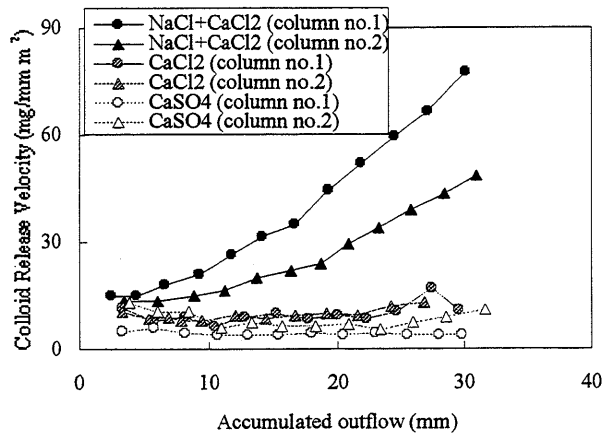


Fig.2 Comparison of CRV (Colloid Release Velocity) during irrigations with different ionic composition.

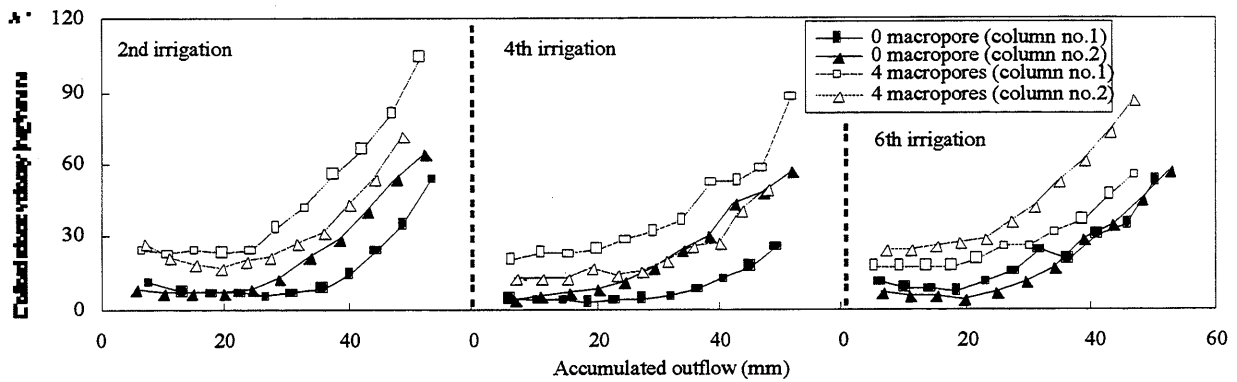


Fig.3 Comparison of CRV (Colloid Release velocity) from soils with and without macropores (0 macropore and 4 macropores).

Macropores and irrigation intensity effects on CRV

The presence of macropores in the soil can cause preferential flow and therefore(132) colloids can be rapidly transported through macropores. CRVs for the soil columns with 4 macropores were higher than that for soil columns without macropores, as shown in Fig.3. However, the presence of macropores did not significantly enhance colloid release from the soil matrix, as compared to for example changing ionic composition (compare Fig.2 and 3). At higher irrigation intensity, soil particles may be more easily detached from the pore wall because of the strong hydraulic force. This may explain the higher CRVs for the higher irrigation intensity during the initial irrigations (Fig.4, 2nd irrigation) where the soil was most affected by the soil packing. For the last irrigations, however, no significant effect of irrigation intensity could be found in this study(133) (Fig.4), in agreement with Jacobsen et al. (1997).

Fig.4 Comparison of CRV (Colloid Release Velocity) during experiments with different irrigation intensities.

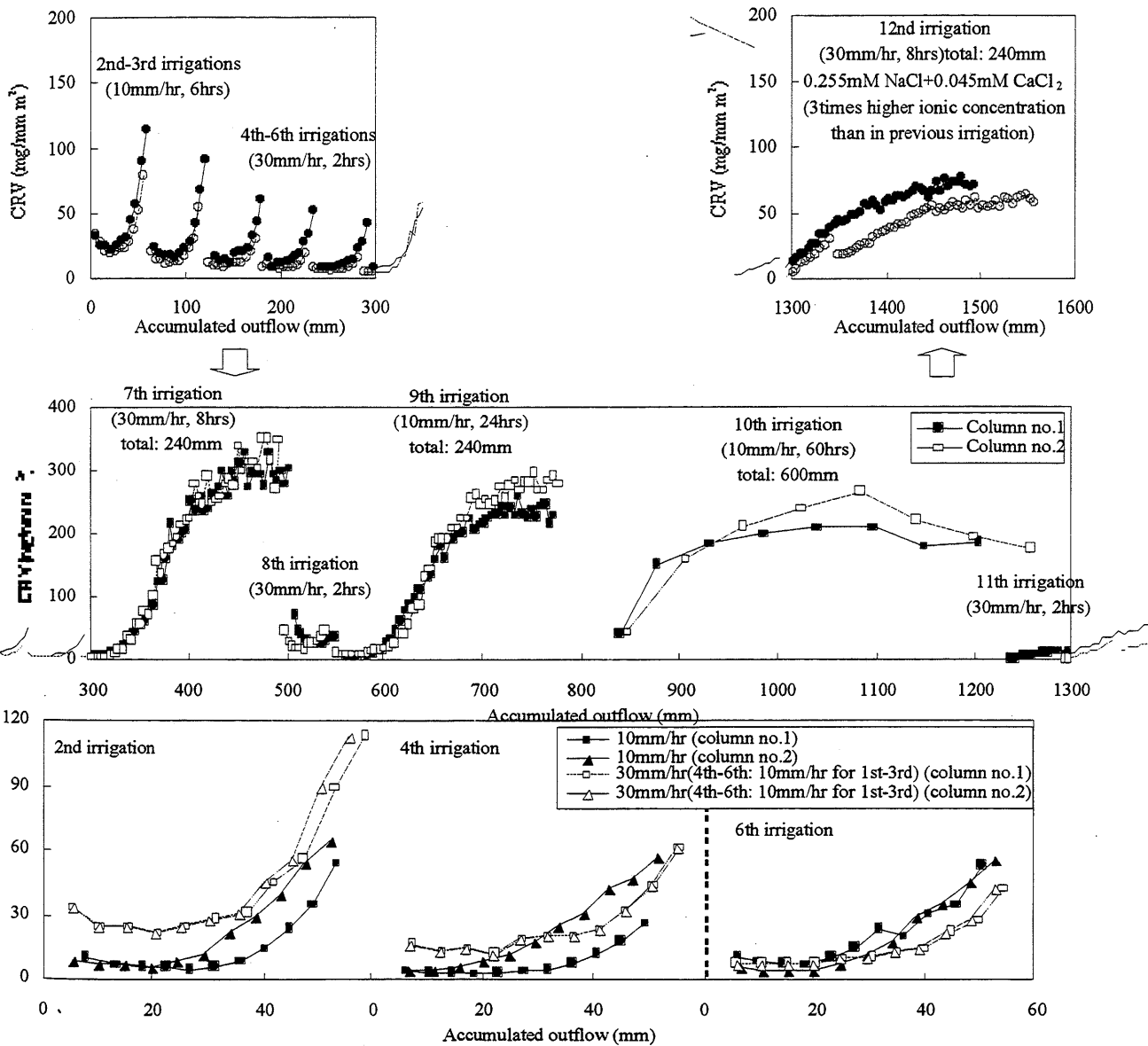


Fig.5 Time-dependence of CRV (Colloid Release Velocity) during the long term irrigations (8hrs (30mm/hr), 24hrs (10mm/hr), 60hrs (10mm/hr)), also(117) showing the effect of ionic composition of applied solution on CRV.

Long-term irrigations

During long-term irrigations, CRVs were low and appeared to reach a steady level at an early stage, but then rapidly increased with the increase of accumulated outflow and finally reached an almost constant level regardless of irrigation intensity (Fig.5: 7th and 9th irrigations). It could also be found in the 10th irrigation (total irrigation: 600mm) that a long-term irrigation resulted in an almost constant CRV. The dramatic increase of CRVs from early to middle stages of irrigation seems to be caused by the effect of sodium contained in applied solution. Sodium will disperse the aggregated soil particles. Aggregated soil particles seem to have sodium capacity for enduring destruction, supported by the fact that the slopes of CRV curves during different irrigation intensities changed at almost the same accumulated outflow. That is to say that(119) aggregated soil particles start collapsing when the accumulated infiltration of sodium reaches a certain level.

(Figure not available here. See Internet site.)

Fig.6 Conversion processes of raw data to CRV fingerprint plots. Dotted line show the apparent steady state colloid release velocity for each irrigation/columns (mean values of last 10 (for 7th and 12th irrigation) and 6 (for 10th irrigation) data points).

To confirm sodium effects on mobilizing soil colloids, 0.255mM NaCl + 0.045mM CaCl₂ solution (whose sodium concentration and ionic strength

are three times higher than those of the solution used for the other experiments) was applied to soil columns during the 12th irrigation under otherwise comparable conditions to the 7th irrigation. The CRVs in the early stages of the 12th irrigation were larger than in the 7th irrigation (Fig.5: 7th and 12th irrigation), but the steady levels of the CRVs at the final stages were lower in the 12th irrigation.

The higher sodium input (12th irrigation) will initially result in enhanced colloid release from the soil matrix. On the other hand,(120) soil water around soil particles is mixed with the applied solution during time. The ionic strength of the applied solution for 12th irrigation was 3 times higher than that for 7th irrigation. Thus,(121) the ionic strength of soil water increased during the 12th irrigation, resulting in a decrease of the electrical double layer around colloids and a lower steady level of CRV at the last stage of irrigation.

Usefulness of colloid release velocity plots for colloid-facilitated contaminant transport risk assessment(10)

Normalized colloid leaching velocity plotted against accumulated outflow is useful for understanding colloid leaching behavior. Three examples (7th, 10th and 12th irrigations in Exp.4) of raw data plots and colloid release velocity plots are shown in Fig.6. As shown in Fig.6, the slope of raw data is defining the colloid release velocity.

Colloid release velocities apparently approach an almost steady level at the last stage during long-term irrigations in Fig.6. In this study,(E118) the steady line for colloid release velocities at the last stage was determined by using the mean values of last 10 (for 7th and 12th

irrigation) or 6 (for 10th irrigation) data points. Colloid release velocity at the steady state is useful for the estimation of potential colloid-facilitated contaminant transport. The amount of potential colloid leaching can be calculated by using the steady value of colloid release velocity, the soil area under consideration, and the total amount of net rainfall + irrigation. Further, (122) if contaminant partitioning coefficient to colloids is known, the potential amount of colloid-facilitated contaminant transport can be estimated.

An example of risk assessment for potential colloid-facilitated transport of phosphorus

Chemical leaching potential (CLP[mg chemical/(ha) (yr)]) by colloid facilitated transport is calculated by

$$CLP = CRV_{st} \cdot I_{yr} \cdot 10000 \cdot K_{cpc}$$

[2]

where CRV_{st} [mg colloids/(mm irrigation) (m^2 soil surface)] is CRV at steady state, I_{yr} [mm irrigation/year] is net yearly rainfall, 10000[m^2 soil surface/ha soil surface] is conversion coefficient of surface area, and K_{cpc} [mg chemical/mg colloids] is chemical partitioning coefficient with respect to(134) the mobile soil colloids.

Potential phosphorus leaching was calculated by using the CRV plots. Around 200 (mg colloids/(mm irrigation) (m^2 soil surface)) was obtained from Fig.6(b) as the CRV at steady state. Phosphorus partitioning coefficient ($K_{ppc}=0.004$ (mgP/mg colloid)) reported in our previous paper

(Motoshita et al., 2002b) was used and total irrigation was assumed to be 1500 mm/year (mean precipitation from 19 years survey in Higashihiroshima area). From this, phosphorus leaching potential (PLP) was estimated as $PLP = 200 (CRV_{st}) \cdot 1500 (I_{yr}) \cdot 10000 \cdot 0.004 (K_{ppc}) = 12$ [kgP/(ha) (yr)]. Thus,(123) the loamy surface soil with a high Olsen-P content (Table 2) shows a significant phosphorus leaching potential. This example illustrates the usefulness of CRV fingerprint plots for chemical leaching assessment.

In the future studies,(135) more experiments under various conditions (soil type, soil depth, irrigation intensity and so on) should be conducted to construct a database of CRVs.(11) Thereby,(136) the possibilities for estimating colloid-facilitated contaminant transport and its contribution to total contaminant transport will improve.

Acknowledgement

This study (137)was in part funded by MONBUKAGAKUSHO (Japanese Ministry of Education, Culture, Sports, Science and Technology), project no.14550545 on “Remediation methods for polluted soils as related to colloid- and dissolved organic matter-facilitated transport”.

References

- 1) Grolimund, D., Borkovec, M. , Barmettler, K., Sticher, H. (1996): Colloid-facilitated transport of strongly sorbing contaminants in natural porous media: A laboratory column study, Environ. Sci.

Technol., Vol.30, pp.3118-3123.

- 2) Jacobsen, O.H., Moldrup, P., Larsen, C., Konnerup, L. and Petersen, L.W. (1997): Particle transport in macropores of undisturbed soil columns, *J. Hydrol.*, Vol.196, pp.185-203.
- 3) Kretzschmar, R., Borkovec, M., Grolimund, D., Elimelech, M. (1999): Mobile subsurface colloids and their role in contaminant transport, *Adv. Agron.*, Vol.66, pp.121-193.
- 4) McCarthy, J. F., Zachara, J. M. (1989): Subsurface transport of contaminants, *Environ. Sci. Technol.*, Vol.23, pp.496-502, 1989.
- 5) Motoshita, M., Komatsu T., Moldrup, P., Ozaki, N. and Fukushima, T. (2001): Soil colloid mobilization and transport in intact and repacked soil columns during periods of irrigation, *J. Environ. System and Eng.*, No.678, -19, pp.111-122 (In Japanese).
- 6) Motoshita, M., Komatsu, T., Gesho, S., Moldrup, P., Ozaki, N. and Fukushima, T. (2002a): Leaching of colloidal matter and dissolved organic carbon from surface soil columns during multiple irrigation periods, *J. Environ. System and Eng.*, No.706, -23, pp.61-76 (In Japanese).
- 7) Motoshita, M., Komatsu, T., Moldrup, P., de Jonge, L.W., Ozaki, N. and Fukushima, T. (2002b): Soil constituent facilitated transport of phosphorus from a high-P surface soil, *Soils and Foundations*, submitted.
- 8) Ouyang, Y., Shinde, D., Mansell, R. S., Harris, W. (1996): Colloid-enhanced transport of chemicals in subsurface environments: A review, *Crit. Rev. Environ. Sci. Technol.*, Vol.26, pp.189-204.

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SPECIAL NOTES FOR THIS PAPER

9) Notice how every sentence in the paragraph explains about the soil, and what was done with the soil. And the most important sentence in the paragraph is the first sentence.

Proofs for the following paper should be sent to:

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Metabolic significance and expression of *Caenorhabditis*
elegans

type II 3-oxoacyl-CoA thiolase**

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ABSTRACT(1)

We cloned the cDNA of the nematode *Caenorhabditis elegans* encoding a 44-kDa protein (P-44) which is similar to sterol carrier protein x (SCPx). The genomic DNA data and northern blot analysis excluded the possibility of P-44 to form SCPx-like fusion protein. P-44 is required in the formation of bile acid *in vitro* from CoA esters of their enoyl-form intermediate in the presence of D-3-hydroxyacyl-CoA dehydratase/D-3-dehydrogenase bifunctional protein. Also rat SCPx converts 24-hydroxy-form intermediate under similar condition to bile acid. From these and other evidences, (101) P-44 and SCPx were categorized as type II thiolase. The mRNA encoding P-44 was detected in every developmental stage of this organism: egg, larval stages, and adult. P-44, therefore, (102) seems essential for the normal functioning of this organism.

Index Entries: *Caenorhabditis elegans*; b-oxidation; thiolase; bile acid; sterol carrier protein x; peroxisome.

INTRODUCTION

Peroxisomal β -oxidation plays an important role in bile acid formation.(2) The CoA esters of trihydroxy- and dihydroxy-5 β -cholestan-26-oic acids which are derived from cholesterol, are converted to cholyl-CoA and chenodeoxycholyl-CoA by oxidative cleavage of their side-chain, respectively.(103) This conversion occurs in peroxisomes (1). The peroxisomal β -oxidation system for the degradation of straight-chain fatty acids consist of acyl-CoA oxidase, L-3-hydroxyacyl-CoA hydratase/L-3-hydroxyacyl-CoA dehydrogenase (L-bifunctional protein), and 3-oxoacyl-CoA thiolase (2). These enzymes, however, do not participate in cleaving the cholesterol side chain, which carries a methyl group at the α -carbon. Oxidase and D-3-hydroxyacyl-CoA hydratase/D-3-hydroxyacyl-CoA dehydrogenase (D-bifunctional protein;(106) also called multifunctional protein 2) involved in bile acid formation were later identified (3). The thiolysis in bile acid formation also seemed to be catalysed by a distinct thiolase, because no conventional thiolase were functional in this process.(3)

Sterol carrier protein x (SCPx), a 58-kDa protein, is located in the matrix of mammalian peroxisomes and carries at the C-terminus the complete sequence of SCP2, which stimulates various steps in cholesterol metabolism *in vitro* (4).(4) Seedorf *et al.* demonstrated rat SCPx has thiolase activity towards straight-chain acyl-CoA, with a unique kinetic property in addition to sterol-carrier and lipid-transfer activities (5).(5) In the meantime, (104)we cloned the cDNA of *Caenorhabditis elegans* encoding a 44-kDa protein (P-44) which is similar to SCPx but lacks the

SCP2 sequence. The present paper(107) reports the metabolic significance and expression of P-44.(6)

Structure and catalytic activity(7)

P-44 (412 residues) has 56% sequence identity to the thiolase domain of SCPx, but lesser (at most 20%) to conventional thiolases (6). Unrooted neighbor-joining tree made with P-44 and 14 thiolases showed that P-44 was positioned closest to the thiolase part of SCPx and was far apart from other groups of thiolases *i.e.* bacterial, mitochondrial and peroxisomal thiolases (6). The C-terminal tripeptide of P-44, Ser-Lys-Ile, which resembles the peroxisomal-targeting signal 1 suggests that this enzyme is imported into peroxisomes. However, the peroxisomal matrix localization of P-44 is yet to be proved.

Purified recombinant P-44 cleaved straight chain 3-oxoacyl-CoAs (C_{8-16}) in a thiolytic manner by the ping-pong bi-bi reaction mechanism (6). The inhibition of P-44 by acetyl-CoA was competitive with CoA and non-competitive with 3-oxooctanoyl-CoA (6). This pattern of inhibition is shared with SCPx (5) but not with conventional 3-oxoacyl-CoA thiolase, which is inhibited uncompetitively with respect to 3-oxoacyl-CoA (7). We concluded that P-44 and SCPx are distinct from conventional thiolases and constitute type II thiolase.

Type II thiolase in bile acid formation

P-44 and SCPx in the presence of D-bifunctional protein showed significant thiolase activity when bile acid precursors (3a, 7a, 12a-

trihydroxycholest-24-enoyl-CoA, 3 α , 7 α -dihydroxycholest-24-enoyl-CoA, stereoisomers of varanyl-CoA, 12-deoxyvaranyl-CoA), and branched chain fatty acid (2-methylhexadecenoyl-CoA) were used as substrates (8). This reaction was not seen with conventional thiolase. Cholic acid and chenodeoxycholic acid that were chemically identified, as evident from gas chromatographic analysis of the reaction products, proved the indispensability of type II thiolase in bile acid formation (8).

Expression of P-44 mRNA

Total RNAs obtained from specific stages (egg, L2, L4 and adult) were prepared and analyzed by northern blot analysis demonstrated that mRNA encoding P-44 is transcribed in every developmental stage of the animal (Fig. 1). By means of *in situ* hybridization, the mRNA was detected in nearly all regions of L4 larvae except the pharynx region. No signal was found in control experiment using sense RNA as probe. These findings suggest(105)that P-44 is essential for the normal function of this organism.(8)

REFERENCES

- 1 Pedersen, J. I. (1993) Peroxisomal oxidation of the steroid side chain in bile acid formation. *Biochimie* 75, 159-165.
- 2 Hashimoto, T. (1982) Individual peroxisomal β -oxidation enzymes. *Ann. N. Y. Acad. Sci.* 386, 5-12.
- 3 Jiang, L. L., Kurosawa, T., Sato, M., Suzuki, Y., and Hashimoto, T. (1997) Physiological role of D-3-hydroxyacyl-CoA dehydratase/D-3-hydroxyacyl-CoA dehydrogenase bifunctional protein. *J. Biochem. (Tokyo)* 121, 506-513.
- 4 Scallen, T. J., Pastuszyn, A., Noland, B. J., Chanderbhan, R., Kharroubi, A., and Vahouny, G. V. (1985) Sterol carrier and lipid transfer proteins. *Chem. Phys. Lipids* 38, 239-261.
- 5 Seedorf, U., Brysch, P., Engel, T., Schrage, K., and Assmann, G. (1994) Sterol carrier protein x is peroxisomal 3-oxoacyl coenzyme A thiolase with intrinsic sterol carrier and lipid transfer activity. *J. Biol. Chem.* 269, 21277-21283.
- 6 Bun-ya, M., Maebuchi, M., Hashimoto, T., Yokota, S., and Kamiryo, T. (1997) A second isoform of 3-ketoacyl-CoA thiolase found in *Caenorhabditis elegans*, which is similar to sterol carrier protein x but lacks the sequence of sterol carrier protein 2. *Eur. J. Biochem.* 245, 252-259.
- 7 Miyazawa, S., Furuta, S., Osumi, T., Hashimoto, T., and Ui, N. (1981) Properties of peroxisomal 3-ketoacyl-CoA thiolase from rat liver. *J. Biochem. (Tokyo)* 90, 511-519.
- 8 Bun-ya, M., Maebuchi, M., Kamiryo, T., Kurosawa, T., Sato, M.,

Tohma, M., Jiang, L. L., and Hashimoto, T. (1998) Thiolase involved in bile acid formation. *J. Biochem. (Tokyo)* 123, 347-352.

9 Sulston, J., and Hodgkin, J. (1988) Methods, in *The nematode Caenorhabditis elegans* (Wood, W. B., ed.), Cold Spring Harbor Laboratory, Cold Spring Harbor NY, pp. 587-606.

10 Roussel, D. L., and Bennett, K. L. (1992) *Caenorhabditis* cDNA encodes an eIF-4A-like protein. *Nucleic Acids Res.* 20. 3783.

Fig. 1. Detection of the mRNA encoding P-44 in different developmental stages by northern blot analysis. The Bristol N2 strain of *C. elegans* was grown at 20°C as described by Sulston and Hodgkin (9). Mixed population of worms were treated with alkaline hypochlorite to obtain viable eggs (9), which were hatched in the absence of nutrients; and used to synchronize the cultures of *C. elegans*. The resulting larvae were transferred to plates containing cells of *E. coli* OP50, as a food source (9). L2 larvae was harvested 20 h after feeding, L4 larvae at 40 h, egg-laying adult nematodes at 75h. Samples (5 mg) of total RNAs were obtained from specific developmental stages of *C. elegans*, egg (lane 1), L2 (lane 2), L4 (lane 3), and egg-laying adult (lane 4). Northern blot analysis was performed as described previously (6). ³²P-labeled DNA fragment encoding P-44 (6) and CeIF which is *C. elegans* homolog of eucaryotic initiation factor 4A (control) were used as probes (10).

Zinc-rich Pyrite from the TAG Active Mound,
the TAG Hydrothermal Field, Mid-Atlantic Ridge#

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Running title: Zinc-rich Pyrite from the TAG Hydrothermal Field

Abstract(11): Pyrite rich in Zn, up to 3.1 wt%, was found in the TAG active mound of the TAG hydrothermal field, the slow-spreading Mid-Atlantic Ridge at 26°08'N and 44°49'W. The Zn-rich pyrite is characterized by an optical homogeneity, a homogeneous distribution of Zn in the back-scattered electron images, both at a magnification of about 500, a negative correlation between Fe and Zn contents of the pyrite and a rather small unit cell edge ($a_0 = 5.4117 \pm 0.0008 \text{ \AA}$), strongly indicating that the detected Zn is present in the pyrite in solid solution. Such Zn concentrations are observed exclusively in dendritic pyrite, suggesting that the Zn-rich pyrite grew from hydrothermal fluids of a high degree of supersaturation due to quenching on the seafloor.

Keywords : Zn-rich pyrite, dendritic growth texture, solid solution, TAG active mound, TAG hydrothermal field, Mid-Atlantic Ridge

1. Introduction

As indicated by synthetic experiments on the Fe-Zn-S system (e.g., Barton and Toulmin, 1966; Boorman, 1967; Scott and Barnes, 1971), pyrite does not have a solid solution field towards sphalerite.(1) However, it is not so rare that naturally-occurring pyrite contains significant amounts of various elements, including Ag, Ni, Co, Zn and As (e.g., Deer et al., 1963).(2) Some of these elements may be present in pyrite as impurities or also in solid solution.(3)

As far as we know, Zierenberg et al. (1984) was the first to notice anomalous high content of Zn, up to 4.2 wt%, in pyrite from seafloor massive sulfide deposits at 21°N on the East Pacific Rise.(4) It was suggested, however, that they are probably due to the presence of submicroscopic inclusions of sphalerite.

Later, in a paper concerning the mineralogy and chemistry of sulfide deposits drilled from an active mound of the Snake Pit hydrothermal field on the Mid-Atlantic Ridge, Honnorez et al. (1990) gave microprobe

analyses of pyrite associated with sphalerite, some of which were rich in Zn, up to 4.5 wt%.(5) The high Zn contents in pyrite were also attributed to submicroscopic inclusions of sphalerite.

Tivey et al. (1995) deduced patterns of fluid flow and mixing within the TAG active mound on the Mid-Atlantic Ridge at 26°N. Although(101) they noted variable enrichments of Cu, Zn (up to 1.92 wt%) and Pb in pyrite from white smoker chimney samples recovered from the active mound, they did not give any explanation for the enrichments. Knott et al. (1998) analyzed mineralogically and chemically core samples drilled from the TAG active mound and underlying altered basement during Ocean Drilling Program (ODP) Leg 158. Pyrite in vein-related Fe-Cu sulfides contained 0.65 wt% Zn, which might be a result of the presence of sphalerite inclusions below the surface of the polished section.

During the course of detailed investigations of massive sulfide samples from the active mound of the TAG hydrothermal field (Fig. 1) on the Mid-Atlantic Ridge at 26°08'N and 44°49'W, the largest seafloor hydrothermal field known, we have found pyrite rich in Zn up to 3.1 wt%. This paper(116) presents and discusses the results obtained for the Zn-rich pyrite in massive sulfides collected from the TAG active mound.(6)

2. Geological Setting(7)

Since the TAG hydrothermal system was found in 1985 as the first high-temperature hydrothermal activity associated with large massive sulfide deposits and vent biota in the Atlantic Ocean, there have been a number of collaboration and multidisciplinary studies (Rona, 1985; Rona et al., 1984, 1986, 1993; Campbell et al., 1988; Edmond et al., 1995; Mills, 1995; Thompson et al., 1985, 1988; Gamo et al., 1996; Rona and Von Herzen, 1996; Fujioka et al., 1997; Herzig et al., 1998; Lalou et al., 1998). In particular,(102) the results of the ODP Leg 158 have enabled elucidation of the internal structure of the TAG active mound, as well as vertical mineralogical and chemical variations within the mound

(e.g.,(103) Humphris et al., 1995; Herzig et al., 1998; Knott et al., 1998).

The TAG hydrothermal field lies on one of 15 spreading segments of the Mid-Atlantic Ridge between the Atlantis fracture zone (30°N) and the Kane fracture zone (24°N). The TAG field occupies 5 km by 5 km area of the floor and east wall of the rift valley between water depths of 2,300 m and 4,000 m situated between 2 km and 8 km east of the axial high along the center of the spreading center. In addition to(104) the active mound, the TAG hydrothermal field includes additional active and inactive hydrothermal zones, including low-temperature zone, Mil zone and Alvin zone (Fig. 1).

Geology of the TAG active mound is only briefly(117) outlined here. The high-temperature hydrothermal activity at the TAG hydrothermal field occurs on the TAG active mound (Fig. 2). This is a steep-sided structure measuring about 200 m in diameter by 35 m high with base at 3,700 m water depth on the floor of the rift valley near the bottom of the east wall 2.4 km east of the spreading axis (e.g.,(105) Rona et al., 1993). The TAG active mound, which was estimated to contain as much as 5×10^6 metric tons of sulfide ores (Rona et al., 1993), consists of the following three units, a central conical edifice, upper and lower circular platforms or terraces (Fig. 2). The central edifice, up to 20 m high and 50 m in diameter near the mound center and composed mainly of chalcopyrite and pyrite, is characterized by vigorous discharge of high temperature black smokers, up to 365°C. The upper platform, lying at water depth of about 3,645 m and composed mainly of sulfide talus and debris with oxidized irregular surfaces, is about 100 m wide, surrounding the central edifice. On the southern side, the transition from the lower to upper platform is marked by 5 m high scarps that lead to a relatively flat surface at depths of 3,642 to 3,650 m (Humphris and Kleinrock, 1996). The surface of the platform is oxidized with a reddish brown color. A number of black smoker and white smoker chimneys, active and inactive, occur on the platform, as well as low-temperature diffuse flow. Large flat-shaped blocks, up to about 60 cm wide and sometimes composed of anhydrite

with a grayish white surface, and much smaller ones are scattered on the surface. The lower platform with its top ~150 m in diameter lies at water depth of about 3,650 m, composed mainly of sulfide talus, debris of various sizes and dead chimneys and their collapsed equivalents and predominated by pyrite. It is bounded by scarps and also has an irregular surface with a reddish brown cover (Fig. 3A). Low-temperature diffuse flow is commonly seen on the platform. Because of the asymmetric superposition of the upper platform, the lower platform cannot be distinguished on the northern side of the mound (Humphris and Kleinrock, 1996).

$^{210}\text{Pb}/\text{Pb}$ and $^{230}\text{Th}/^{234}\text{U}$ age determinations on sulfide samples from the active mound suggest that hydrothermal activity at the currently active TAG mound probably began at 50 to 40 ka, or earlier in the area of the lower platform, followed by intermittent formation of sulfides related to episodic pulses of high-temperature activity every ~5000 yr during the past 20 ka (Lalou et al., 1990, 1993, 1998).

3. Occurrence of Zn-rich Pyrite-bearing Sample(8)

The original sample containing the Zn-rich pyrite occurred as a rather hard sulfide block (24cm x 22cm x 16cm) on the active mound of the upper platform (Fig. 2) and was collected during the DSV Shinkai 6500 diving program, as part of MODE'98 Leg 2 cruise in 1998 (e.g., (106) Fujioka et al., 1998). In the immediate vicinity of the sampling site, there occurred many active and inactive chimneys, which were generally short with heights up to about 1 m and thin with basal diameters up to about 30 cm. It is characteristic that dense swarms of shrimp, *Rimicaris exoculate* and lesser amounts of *Chorocaris chacei* (T. Naganuma, pers. comm.) were observed on active chimney walls (Fig. 3B).

Photographs of the Zn-rich pyrite-bearing massive sulfide sample (#430-R-002) are shown in Figure 4. The specimen is dominated by pyrite (~80%) with lesser amounts of sphalerite (~15%) and chalcopyrite

(~5%) with a reddish brown surface and a dark gray inside.

4. Mineralogy of Zn-rich Pyrite

Photomicrograph and back-scattered electron images of the Zn-rich pyrite are shown in Figure 5. Representative microprobe analyses of Zn-rich pyrite (first generation pyrite) are given in Table 1, together with those of other marginal euhedral pyrite (second generation pyrite) and fine-grained aggregates of euhedral marcasite crystals, forming well-developed dendritic or arborescent texture. Also shown are chemical compositions of other larger euhedral pyrite grains in the massive sulfide sample. It is noted that the Zn-rich pyrite shows a negative correlation between Fe and Zn contents (Fig. 6) and that other pyrite and marcasite grains have very little or no Zn. Furthermore, (107) it is characteristic that the Zn-rich pyrite, as well as the Snake Pit Zn-rich pyrite (Honnorez et al., 1990), is slightly deficient in sulfur relative to Zn-poor and Zn-free pyrite as listed in Table 1. Also it is worth while to notice the fact that a unit cell edge of the Zn-rich pyrite ($a_0=5.4117 \pm 0.0008 \text{ \AA}$) is somewhat smaller than that of usual pyrite ($a_0=5.417 \text{ \AA}$) (Deer et al., 1963). As seen in the back-scattered electron images, the area involving the Zn-rich pyrite consists of two contrasting parts, lighter and darker. The former is rich in Zn, up to 3.1 wt%, while the latter is almost free from Zn. Each of the two parts is optically and compositionally homogeneous at a magnification of about 500. Microscopic observation at a high magnification has revealed that the darker part is composed of fine-grained aggregates of marcasite which occur as overgrowth on the pyrite and also as replacement of the pyrite (first generation) along microfissures, which are then rimmed by fine-grained euhedral pyrite (second generation). The marginal pyrite is also lighter in color on the compositional images, but it contains very little Zn (Table 1).

5. Discussion and Conclusions

The back-scattered electron images (Fig. 5B and C) and the negative correlation between (118) Fe and Zn contents of the pyrite (Fig. 6 and Table 1), as well as its rather small unit cell edge ($a_0=5.4117 \pm 0.0008$ Å), strongly support that Zn in the pyrite occurs as a solid solution. Therefore, (108) unlike the suggestions made by Zierenberg et al. (1984), Honnorez et al. (1990) and Knott et al. (1998), it seems improbable that it results from the presence of submicroscopic inclusions of sphalerite in pyrite. (9)

As revealed by the back-scattered electron images and microscopic observations at a high magnification, the dendritic part is composed mainly of Zn-rich pyrite surrounded by fine-grained aggregates of euhedral marcasite occurring as overgrowth on the pyrite (first generation). These are further rimmed by fine-grained euhedral pyrite (second generation). Such marcasite contains very little Zn or is almost pure, as described from the Snake Pit hydrothermal field by Honnorez et al. (1990). Fine-grained marcasite also occurs as replacement of the Zn-rich pyrite along microfractures. Such mode of occurrence indicates that Zn present in the pyrite lattice was removed during replacement, resulting in depletion of Zn in newly-formed marcasite. The marginal or rim pyrite with euhedral habit (second generation pyrite), though (109) lighter in the back-scattered electron images (Fig. 5), possibly due to (119) "edge effect", contains very little or no Zn, as in other larger euhedral crystals of pyrite in the massive sulfide sample (Table 1). The present discovery is based on observations using microscopic and microprobe techniques at a magnification of about 500. However, it is emphasized that for a better understanding of this problem, observations using electron microprobe or transmitted electron microscope at much higher magnifications are needed. (10)

Pyrites in the massive sulfide samples from the TAG mound show variable growth textures such as those of euhedral (mainly cubic) texture, rounded colloform growth and dendritic to arborescent growth texture.

However, it is important to notice the fact that significant amounts of Zn, up to 3.1 wt%, are incorporated exclusively into dendritic pyrite, as well as a homogeneous distribution of Zn. On the other hand,(Geo110) in pyrites whose growth forms are other than dendritic, their Zn contents are extremely low. This textural preference allows to conclude that the Zn-rich pyrite was originated from hydrothermal fluids of a high degree of supersaturation due to(120) quenching on the seafloor. Systematic decrease in sulfur with increasing Zn contents strongly suggests that solid solution relationship exists between FeS₂ and ZnS. However, it is pointed out that(121) a question is still left open why synthetic pyrite does not have a solid solution field towards sphalerite, in spite of(111) that such solid solution relation sometimes exists between natural dendritic pyrites.

In general,(112) dendritic to arborescent textures, as well as colloform texture, are primary ore texture, which are typical of crystal growth from supersaturated fluids in open spaces. Those ore textures are common in ancient volcanogenic massive sulfide deposits, including Besshi-type deposits (e.g., (113) Watanabe et al., 1993), Kuroko-type deposits (e.g., Watanabe, 1974) and their Precambrian equivalents (e.g., (114)Frater, 1985; Vearncombe et al., 1995; Watanabe, 1996). If their primary ore textures are well preserved, it is reasonably expected that significant amounts of Zn are present in dendritic to arborescent and/or colloform pyrite from those ancient deposits. Therefore,(114) it is pointed out that(122) systematic analysis of pyrite of various occurrences and textures, whether in modern or in ancient volcanogenic massive sulfide deposits, should be carried out.(11)

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References

- Barton, P. B., Jr. and Toulmin, P., III (1966) Phase relations involving sphalerite in the Fe-Zn-S system. *Econ. Geol.*, 61, 815-849.
- Boorman, R. S. (1967) Subsolidus studies in the ZnS-FeS-FeS₂ system. *Econ. Geol.*, 62, 614-631.
- Campbell, A. C., Palmer, M. R., Klinkhammer, G. P., Bowers, T. S., Edmond, J. M., Lawrence, J. R., Casey, J. F., Thompson, G., Humphris, S., Rona, P. A. and Karson J. A. (1988) Chemistry of hot springs on the Mid-Atlantic Ridge. *Nature*, 335, 514-519.
- Deer, W. A., Howie, R. A. and Zussman, J. (1963) ROCK-FORMING MINERALS Vol. 5 Non-silicates. Longmans, Green and Co. Ltd., London, 371p.
- Edmond, J. M., Campbell, A. C., Palmer, M. R., Klinkhammer, G. P., German, C. R., Edmonds, H. N., Elderfield, H., Thompson, G. and Rona, P. A. (1995) Time-series studies of vent fluids from the TAG and MARK sites (1986, 1990) Mid-Atlantic Ridge: a new solution chemistry model and a mechanism for Cu/Zn zonation in massive sulfide ore bodies. *in* Parson, L. M., Walker C. L. and Dixon, D. R. (eds.) *Hydrothermal Vents and Processes*, *Geol. Soc. Spec. Publ.*, 87, 77-86.
- Frater, K. M. (1985) Mineralization at the Golden Grove Cu-Zn deposit, Western Australia. I: Premetamorphic textures of the opaque minerals. *Canad. Jour. Earth Sci.*, 22, 1-14.
- Fujioka, K., Chiba, H., Naganuma, T., Masuda, H., Oomori, T., Rona, P. A., Tucholke, B., Ishihara, T., Kato, K., Lee, S. Y., Green, D., Aoki, M. and Yamamoto, H. (1998) Hydrothermal processes and architecture of the slow-spreading MAR at TAG and Rainbow hydrothermal fields and Dant's Done Megamullion site (MODE'98 Leg 2). *InterRidge News*, 7, 18-23.
- Fujioka, K., Kobayashi, K., Kato, K., Aoki, M., Mitsuzawa, K., Kinoshita, M.

- and Nishazawa, A. (1997) Tide-related variability of TAG hydrothermal activity observed by deep-sea monitoring system and OBSH. *Earth Planet. Sci. Lett.*, 153, 239-250.
- Gamo, T., Chiba, H., Masuda, H., Edmond, H. N., Fujioka, K., Kodama, Y., Nanba, H. and Sano, Y. (1996) Chemical characteristics of hydrothermal fluids from the TAG mound of the Mid-Atlantic Ridge in August 1994: implications for spatial and temporal variability of hydrothermal activity. *Geophys. Research Lett.*, 23, 3483-3486.
- Herzig, P. M., Petersen, S. and Hannington, M. D. (1998) Geochemistry and sulfur-isotopic composition of the TAG hydrothermal mound, Mid-Atlantic Ridge, 26°N. *Proc. ODP Sci. Results*, 158, 47-70.
- Honnorez, J., Mevel, C. and Honnorez-Guerstein, B. M. (1990) Mineralogy and chemistry of sulfide deposits drilled from hydrothermal mound of the Snake Pit active field, MAR. *Proc. ODP Sci. Results*, 106/109, 145-162.
- Humphris, S. E. and Kleinrock, M. C. (1996) Detailed morphology of the TAG active hydrothermal mound: insights into its formation and growth. *Geophys. Research Lett.*, 23, 3443-3446.
- Humphris, S. E., Herzig, P. M. Miller, D. J., Alt, J. C., Becker, K., Brown, D., Brugmann, G., Chiba, H., Fouquet, Y., Gemmell, J. B., Guerin, G., Hannington, M. D., Holm, N. G., Honnorez, J. J., Itturino, G. J., Knott, R., Ludwig, R., Nakamura, K., Petersen, S., Reysenbach, A. L., Rona, P. A., Smith, S., Sturz, A. A., Tivey, M. K. and Zhao, X. (1995) The internal structure of an active sea-floor massive sulphide deposit. *Nature*, 377, 713-716.
- Knott, R., Fouquet, Y., Honnorez, J., Petersen, S. and Bohn, M. (1998) Petrology of hydrothermal mineralization: a vertical section through the TAG mound. *Proc. ODP Sci. Results*, 158, 5-26.
- Lalou, C., Thompson, G., Arnold, M., Bricchet, E., Druffel, E. and Rona, P. A. (1990) Geochronology of TAG and Snakepit hydrothermal fields, Mid-Atlantic Ridge: witness to a long and complex hydrothermal history. *Earth Planet. Sci. Lett.*, 124, 35-47.

- Lalou, C., Reyss, J. L., Bricet, E., Arnold, M., Thompson, G., Fouquet, Y. and Rona, P. A. (1993) New age data for Mid-Atlantic Ridge hydrothermal sites: TAG and Snakepit geochronology revisited. *Jour. Geophys. Research*, 98, 9705-9713.
- Lalou, C., Reyss, J. L. and Bricet, E. (1998) Age of sub-bottom sulfide samples at the TAG active mound. *Proc. ODP Sci. Results*, 158, 111-117.
- Mills, R. A. (1995) Hydrothermal deposits and metalliferous sediments from TAG, 26°N Mid-Atlantic Ridge. *in* Parson, L. M., Walker C. L. and Dixon, D. R. (eds.) *Hydrothermal Vents and Processes*, *Geol. Soc. Spec. Publ.*, 87, 121-132.
- Rona, P. A. (1985) Black smokers and massive sulfides at the TAG hydrothermal field, Mid-Atlantic Ridge, 26°N. *EOS, Amer. Geophys. Transactions*, 66, 936.
- Rona, P. A. and Von Herzen, R. P. (1996) Introduction to special section on measurements and monitoring at the TAG hydrothermal field, Mid-Atlantic Ridge 26°N, 45°W. *Geophys. Research Lett.*, 23, 3427-3430.
- Rona, P. A., Thompson, G., Mottl, M. J., Karson, J. A., Jenkins, W. J., Graham, D., Malette, M., Von Damm, K. and Edmond, J. M. (1984) Hydrothermal activity at the TAG hydrothermal field, Mid-Atlantic Ridge crest at 26°N. *Jour. Geophys. Research*, 89, 11365-11377.
- Rona, P. A., Klinkhammer, G., Nelsen, T. A., Trefry, J. H. and Elderfield, H. (1986) Black smokers, massive sulfides, and vent biota at the Mid-Atlantic Ridge. *Nature*, 321, 33-37.
- Rona, P. A., Hannington, M. D., Raman, C. V., Thompson, G., Tivey, M. K., Humphris, S. E., Lalou, C. and Petersen, S. (1993) Active and relict sea-floor hydrothermal mineralization at the TAG hydrothermal field, Mid-Atlantic Ridge. *Econ. Geol.*, 88, 1989-2017.
- Scott, S. D. and Barnes, H. L. (1971) Sphalerite geothermometry and geobarometry. *Econ. Geol.*, 66, 653-669.
- Thompson, G., Mottl, M. J. and Rona, P. A. (1985) Morphology, mineralogy and chemistry of hydrothermal deposits from TAG area, 26°N, Mid-

- Atlantic Ridge. *Chem. Geol.*, 49, 243-257.
- Thompson, G., Humphris, S. E., Schroeder, B., Sulanowska, M. and Rona, P. A. (1988) Hydrothermal mineralization on the Mid-Atlantic Ridge. *Canad. Mineral.* 26, 697-711.
- Tivey, M. K., Humphris, S. E., Thompson, G., Hannington, M. D. and Rona, P. A. (1995) Deducing patterns of fluid flow and mixing within the TAG active hydrothermal mound using mineralogical and geochemical data. *Jour. Geophys. Research*, 100, 12527-12555.
- Watanabe, M. (1974) On the textures of ores from the Daikoku ore deposit, Aina mine, Akita Prefecture, Northeast Japan, and their implications in the ore genesis. *in* Ishihara, S., Kanehiro, K., Sasaki, A., Sato, T. and Shimazaki, Y. (eds.) *Geology of Kuroko Deposits*, Mining Geol. Spec. Issue, 6, 337-348.
- Watanabe, M. (1996) Archean volcanogenic massive sulfide deposits in Australia. *Monthly Earth (Gekkan Chikyu)*, 16, 107-113 (in Japanese).
- Watanabe, M., Hoshino, K., Osaki, T., Yukawa, M., Sugiyama, M., Nishido, H. and Kagami, H. (1993) Mineralogy and geochemistry of Besshi-type deposits and related greenrocks in the Sanbagawa Belt, Japan: implications for their metallogenic evolution. *Resource Geol. Spec. Issue*, 17, 213-228.
- Vearncombe, S., Barley, M. E., Groves, D. I., Mcnaughton, N. J., Mikuchi, E. J. and Vearncombe, J. R. (1995) 3.26 Ga black smoker-type mineralization in the Strelly Belt, Pilbara craton, Western Australia. *Jour. Geol. Soc. London*, 152, 587-590.
- Zierenberg, R. A., Shanks, W. C. III and Bischoff, J. L. (1984) Massive sulfide deposits at 21°N, East Pacific Rise: chemical composition, stable isotopes, and phase equilibria. *Geol. Soc. Amer., Bull.*, 95, 922-926.

Figure captions:

Fig. 1 Map showing a location of the TAG hydrothermal field on the Mid-Atlantic Ridge (modified from Rona et al., 1993). Abbreviations are: TAG H.F. = TAG hydrothermal field; MAR = Mid-Atlantic Ridge; A.Z.= ALVIN zone; M.Z. = MIR zone; Low-Temp.Z. = low-temperature zone; V.D. = volcanic domes.

Fig. 2 Map showing a topography and geology of the TAG sulfide mound, together with an idealized cross section.

Fig. 3 Photographs of the sampling site on the lower platform of the TAG active mound. (A) A mound composed of dead chimneys, collapsed chimneys and sulfide blocks of various sizes scattered on the irregular surface. (B) Dense swarms of shrimp on active chimney walls. Scale bar is 20 cm long.

Fig. 4 Photographs of the Zn-rich pyrite-bearing sample (#430-R-002) (A) A part of the original sample with an oxidized surface. (B) A cut sample showing a fresh dark gray inside. Scale bar is 10 cm long.

Fig. 5 Photomicrograph (A) and EPMA back-scattered electron images (B) (x220) and (C) (x600) of the Zn-rich pyrite. Scale bars are 100 μm long for (A) and (B) and 10 μm long for (C).

Fig. 6 Relationships between Zn and Fe contents of dendritic-textured pyrites.

Table caption

Table 1 Representative EPMA analyses of the Zn-rich pyrite (first generation pyrite), together with those of fine-grained marcasite and marginal pyrite (second generation pyrite).

INSET as a Tool for Improving Mathematical Competence: ANALYSIS of the Teachers' Performance Before and after a Training Program*

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Abstract.(1) An excerpt in the NCTM's overview of principles and standards for school mathematics states that mathematical competence opens doors for productive future, lack of it closes those doors. To prepare students, therefore,(129) to become mathematically competent individuals for the future, teachers should not only be knowledgeable about *what* they teach but also proficient in *how* they teach (ACE, 1999). In this light, (101)teacher education has become one of the major concerns of the Philippine Government. However, review of literature in the country reveals that researches about the impact of INSET on teachers are scarce. Taking this situation into account and being inspired by the importance of research as a means to improving both mathematics education and mathematics teacher education (Fung, 2001), this paper(130) presents the result of a study conducted to investigate the teachers' performance before and after a training. It was found out that there was a significant change in the teachers' performance both in content and strategy-related skills in teaching mathematics. Also, the paper(131) shows the areas in mathematics where the teachers performed best/least after training.

INTRODUCTION

The Study

Burgess and Galloway (1993) assert that the prime purpose of in-service education and training, also known as INSET, is to improve the quality of teaching, although,(132) according to them there is little evidence on the extent to which it affects the classroom.(2) It is within this premise that this study (133)was conducted to examine the impact of the in-service training program that had been conducted by the Elementary School Mathematics Workgroup of the University of the Philippines National Institute for Science and Mathematics Education Development (UP NISMED ESM) for a set of Grades 1 to 4 elementary mathematics teachers in the Philippines.(3) More specifically,(102) this study aimed to find out the effect of the training by comparing the teachers' performance in content and strategy-related skills before and after the training program was conducted.(4)

Description of the In-service Training Program(5)

Elementary mathematics education should not only focus on the development of mathematical concepts and skills but the learners' thinking as well. Hence,(103) the in-service training program was designed not only to enhance the teachers' knowledge of mathematical content but also(104) to prepare mathematics teachers in providing opportunities for the development of higher order thinking. Among others,(105) the training focused on the means to generate activities and problems that will promote mathematical thinking. The mathematics teachers were then exposed to this kind of activity, where they were tasked to solve problems, answer questions, discuss and work out activity sheets.

A pretest was administered to the teachers on the first day of the training to determine their existing knowledge in mathematics, problems they encounter, difficulties and misconceptions that needed extra attention

during the training. The result served as basis for the UP NISMED ESM trainers, where the researcher happened to be a member, in delivering their sessions in the training. A similar test was given at the end of the 10-day intensive training.

METHOD

The study used several steps to seek valid information for the hypothesis it sought to test. The performances of the teachers both in content and strategy-related skills before and after the training program were carefully examined. For the teachers' knowledge in mathematical content, the pretest and posttest results were compared, while with the teachers' instructional techniques, the study(134) used the evaluation forms accomplished by the mathematics supervisor. In filling up the forms, the supervisor used data from observations in the teachers' classroom before and after the training. Also, the data gathered through focus group discussion with the teachers, classroom observations and post-conference discussions were used to compliment and supplement the results of the previous data mentioned.

Thirty-five elementary mathematics teachers from Paranaque City participated in the in-service training program. Out of this number, however, two were not able to take the achievement test. In the analysis, therefore,(106) of the pretest and posttest results, only the 33 teachers with complete outputs were considered. As regards to (107)the data on the instructional skills, only 31 were considered due to unavailability of some outputs.(6)

A two-tailed test, Comparison (or Dependent) t-test at .05 level of significance was used to test differences between the teachers' mathematical ability and instructional techniques before and after the training.

Moreover,(108) the following steps were performed using the McNemar Symmetry chi-square as another way to assess the significance of the difference between the performances of the teachers before and after the training program.

A McNemar’s test uses the Chi-square distribution. Thus,(109) a square table shown in Figure 1 was prepared in which the diagonal reflects teachers whose performance in the pretest and posttest had not change.

Figure 1. A square table used in testing Significance of Change

Posttest		+	-
+	A(+,+)	B(+,-)	
Pretest			
-	C(-,+)	D(-,-)	

The matched pair samples from the pretest and posttest answer sheets were tallied in the prepared table.

The responses in each item in the pretest/ posttest were summarized in the square table as follows:

- correct in the pretest, correct in the posttest
- correct in the pretest, error in the posttest
- error in the pretest, correct in the posttest
- error in the pretest, error in the posttest

The computed Chi-square (X^2) values were referred to the table of the distribution of Chi-square with 1 degree of freedom (Bohrnstedt & Knoke, 1994). If the computed Chi-square is less than the critical value found in the table for the desired level of significance,(138) in this case(135) .05, the gains in the responses in the pretest and posttest is not significant. Hence,(110) at the .05 level of significance, the critical value of Chi-square is 3.841.

RESULTS and DISCUSSION

This study(136) aimed to determine if there was significant change in the teachers' performance in mathematics after they participated in the in-service training program. Also, it pointed out specific areas in mathematics where the teachers performed best/least. Table 1 summarizes the t-test analysis for the teachers' mathematical ability and instructional skills.

Teachers' Mathematical Ability

The mean score in the pretest was 17.88, which is equivalent to 51% of the total perfect score (35 points). The posttest gave a mean score of 26.85 or 77% of the perfect score. This could give an initial impression that the teachers' performance in the posttest was better than in the pretest since there was a gain of 26% in the percentage of mean scores.

A comparison of the standard deviations for the two distributions (4.97 and 4.06) shows that the scores in the posttest were a little less spread out from the mean score than the scores in the pretest. It might also be noted that while the pretest has a greater variability (4.97), it has a smaller measure of central tendency (mean=17.88) compared to the posttest's standard deviation of 4.06 and mean score of 26.85. This would be described as being better and more homogeneous in their knowledge in mathematics when the teachers took the posttest than in the pretest.

The *t*-test reveals that the *p* value associated with the *t* value (-12.53) is less than the predetermined alpha (0.05), suggesting that the difference of the means, -8.97 (17.88-26.85) is highly significant.(137) The result, therefore,(111) shows that the difference in the teachers' performance in the posttest and in the pretest is an indicator of an improved mathematical ability.

Teachers' Instructional Skills

It can be seen in Table 1 that the mean scores of the teachers' instructional skills before the training is moderate (54.71%).(7) This means that the teachers were already somewhat equipped with good instructional techniques based on the supervisors' criteria before they attended the training. Though(112) the teachers had made a remarkable change in their scores as revealed by the difference of the 'BEFORE' and the 'AFTER', the level of attainment AFTER the training was only 78.03%. This indicates that(M139) the training institution can still look forward for a greater change in the teachers' instructional skills after the training.

However, it can be gleaned that(140) the mean score before the training was about 23 points smaller than the mean score after the training (that is (141)54.71-78.03). This difference gave a p value less than .05. Thus,(113) it is safe to say that there was a statistically significant difference between these two means. In other words,(114) the observed difference in the two means is greater than the difference expected through chance coincidence and that the difference could be attributed to the effects of the training program.

The Focus Group Discussion and the Classroom Observation

Furthermore,(115) the data gathered from the Focus Group Discussion (FGD) reveals that the teachers, in general(142), admitted that they have improved their teaching ability after the training.(8) They disclosed during the discussion that the training program had helped them become more creative and professionally more competent teachers.

Results in the classroom observations and post-conference with the teachers show that the training has substantially influenced the growing acceptance of teaching mathematics using activities and problems that promote the integrated skills of problem solving, critical thinking, creative

thinking, and decision making. The following were some of the strengths these teachers exhibited during the

Table 1. Summary of the Analysis for the Teachers' Performance Before and After the Training.

Variable	Mean		N	Std. Deviation		t	Sig. (2-tailed)
	Before	After		Before	After		
Mathematical Ability (Perfect Score = 35)	17.88	26.85	33	4.97	4.06	-12.53	.00*
Supervisor's Evaluation of Instructional Skills (Perfect Score = 100)	54.71	78.03	31	8.02	9.26	19.11	.00*

* - Significant at .05 level

classroom observations:

Awareness of the importance of group work or cooperative learning;

Greater use of open-ended type questions or questions that provide opportunity to develop higher order thinking skills (HOTS) among pupils;

The use of concrete objects as a springboard to developing understanding of mathematical concepts;

Giving pupils more time to explore concepts and make sense of mathematics.

Some teachers observed, however, have shown difficulty in adapting the skills which they were extensively exposed to during the training.

McNemar Test of Symmetry for Significance of Item Gains

While(116) *t*-test evaluates the significant difference(143)of the two means, the McNemar Test of Symmetry tests the significance of item gains from before and after the training program. Table 2 presents the Chi-square (X^2) values for the test of change per item of the pretest/posttest of the teacher-participants.

Of the 35 items in the pretest/ posttest, only 17 or 49% showed significant(144) positive gains. And with this number, Items 34 and 10 showed the highest and second

Table 2. McNemar's Chi-square test of Change in Knowledge of the Concept Measured per Item of the Pretest/ Posttest (N=33)

ITEM NO.	A(+,+)	B(+,-)	C(-,+)	D(-,-)	Chi sqr
1	26	0	7	0	5.14*
2	19	2	5	7	0.57
3	30	0	2	1	0.5
4	26	2	5	0	0.57
5	32	0	1	0	0
6	11	2	7	13	1.78
7	8	0	15	10	13.07*
8	24	4	4	1	0.12
9	3	1	6	23	2.28
10	4	0	20	9	18.05*
11	18	5	8	2	0.31
12	18	1	12	2	7.69*
13	13	6	10	4	0.56
14	18	3	8	4	1.45
15	9	2	20	2	13.14*
16	19	1	10	3	5.82*
17	4	2	11	16	4.92*

18	8	8	8	9	0.06
19	3	2	21	7	14.09*
20	14	3	12	4	5.82*
21	8	3	13	9	5.06*
22	26	1	6	0	2.28
23	18	0	14	1	12.07*
24	24	1	7	1	3.12
25	9	2	15	7	8.47*
26	19	0	14	0	12.07*
27	18	2	13	0	6.67*
28	12	6	8	7	0.07
29	2	1	14	16	9.60*
30	23	2	6	2	1.12
31	1	5	17	10	5.50*
32	29	0	3	1	1.33
33	2	3	5	23	0.12
34	0	3	29	1	19.53*
35	19	6	8	0	0.07

* - Significant at .05 level, (one-tailed)

highest significant (145)change, respectively(146). Item 34 tests the ability to draw in the grid a rectangle given the area and perimeter. In fact,(147) eighty-eight percent (88%) of the teacher-participants who were not able to answer it correctly in the pretest gave the correct answer in the posttest. On the other hand,(148) Item 10 requires identifying a part of a whole in a partitive proportion.

The following are additional items with significant(149) positive change: Items 1 and 7 which require identifying fraction in a number line and knowledge in forming an addition sentence given two shaded parts of a rectangular region, respectively.(117)

Item 15, that is,(118) identifying the perimeter of a figure drawn in the

grid.

Items 16, 17 and 26 which measure their knowledge of conversion for the topics linear, area and mass measurements.

Item 19 that asks about the radius of a circle drawn in a grid.

Items 20 and 25. These items measure their skills of estimating. They were asked to approximate the temperature given a particular time of the day and also to estimate the lengths of some objects.

Items 21 and 23 which cover topics about Graphs.

Item 27 which requires knowledge in divisibility rules.

Item 29 which requires knowledge in factorization.

Item 31 which requires basic facts about the four fundamental operations, multiplication, division, addition and subtraction (MDAS).

Item 12, that is, (119) converting fraction to decimal.

The training institution can still look forward for great significant(150) changes in the following items:

Items 9 and 33 which 70% of the teacher-participants have not mastered even after the duration of the training program. Item 9 was about whole-to-part ratio, while Item 33 requires the ability to estimate the mass of an object.

Items 2, 6, 18 and 28 which about 20% to 40% of the teacher-participants did not get right even after the training. Items 2 and 6 were about Rational Numbers where they were asked to represent in a drawing a part of a whole and to arrange a series of fractions from greater to least, respectively.(151) Item 18, on the other hand,(120) dealt with estimating areas of given objects. To be able to answer Item 28, one has to utilize the strategy of working backward in doing problem solving. It dealt with finding a number whose divisor, quotient and the remainder were given.

A slight remediation, however, is needed on the following:(152)(9)

Items 13 and 14 which 12% of the teacher-participants have not

mastered even after the training. Both items required knowledge on Rational Numbers, these are, representing a shaded region in a decimal fraction and arranging the given decimal fractions from least to greatest, respectively.(121)

Items 11 and 30 which 2 or 6% of the teacher-participants still got wrong even in the posttest. Item 11 dealt with, again, Rational Numbers where teachers were asked to represent in decimal fraction a point in the number line; while(122) item 30 involved addition of whole numbers.

Items 3, 8, 24 and 32 required the least remediation in which only 1 or 3% of the teacher-participants had not mastered. Item 3 required the teachers to shade a part of a whole, while(123) item 8 required their knowledge dealing with part-to-part ratio. Items 24 dealt with estimating angle measurements, while(124) item 32 required basic knowledge about the square of a number

Interestingly,(125) the following are additional items which the teachers have mastered after the training program: Items 4, 5, 22 and 35. Item 4 dealt with identifying the shaded part of a given set of objects, while(126) Item 5 was on comparing proper fractions. In the case of (127)Item 22, it required with the basic knowledge on Graphs, specifically on reading a bar graph. Lastly,(128) Item 35 engaged with a simple two-step problem solving on the topic Area Measurement.

The presence of the achievement test and the instructional skills evaluation instrument is deemed important in this paper, but due to(153) space constraint it will not be posted in here. However, these two instruments will be presented during the actual presentation of the paper(154)in the conference.

References

American Council on Education. (1999). To touch the future: Transforming the way teachers are taught. *An Action Agenda for*

College and University Presidents (pp. 3 - 4). Washington, DC.: ACE Fulfillment Service.

Burgess, R. and Galloway, S. (1993). Does in-service education have an effect on classroom practice? In: R. Burgess, J. Connor, S. Galloway, M. Marrison, and M. Newton (Eds.), *Implementing In-service Education and Training* (pp. 169 - 173). London: The Palmer Press.

Bohrnstedt, George and Knoke, David (1994). *Statistics for Social Data Analysis (3rd Ed.)* Illinois: F. E. Peacock Publishers, Inc.

Fung, C. (2001). Teaching recurring decimals: What is expected of a teacher? And can we expect that? In J. Novotna, & M. Hejny (Eds.), *Proceedings of the 2001 International Symposium in Elementary Mathematics Teaching* (pp. 68 - 73). The Czech Republic: Charles University.

NCTM Standards: An Overview – Principles and Standards for School Mathematics. [Online] URL: <http://nctm.org/standards/overview.htm>.

SPSS Base 10.0 Applications Guide. United States of America. 1999

Using GraphPad's McNemar Test Calculator. [Online] URL: <http://www.graphpad.com/calculators/McNemar-Ex.cfm>.

The Myth of Absence of Dyslexia in Japan*

By Jun Yamada

Many strange myths still remain in Japan.(1) Dyslexia-free Japan may be viewed as one of them.(2) Developmental dyslexia has been hidden at a deeper level and is difficult to see.(3) This situation actually reflects a lack of research on dyslexia.(4) Makita (1968) concluded with the results of his questionnaire study that “the prevalence of dyslexia in Japan (0.98%) is some ten times lower than in Western countries.”(5) Stevenson, et al. (1982), comparing reading performance of children in Taiwan, Japan and the U.S., demonstrated that Makita's conclusion is unwarranted.(6) Yamada & Banks (1994) suggested that about 6% of

school children are dyslexic.(6) The myth perpetuated by Makita (1968) seems so robust that is difficult to dispel.(7)

Let us discuss the following statement of Wydell & Butterworth (1999):(a)

... and as Makita claimed back in 1968, the great majority of children learn how to read and write in Japanese *without noticeable problems*. Even when the children are identified as having reading disabilities, these children tend to have *specific other cognitive deficits* as well (Stevenson et al., 1982). Further, these reading disabilities tend to be due to visuospatial rather than phonological *processing impairments*. [emphasis added] (p.279) (b)

Unfortunately, this statement is either incorrect or illogical.(c) First(100), the notion of learning without noticeable problems would be surprising not only(101) to many parents having experienced sending their children through the Japanese school system but also(101) to anyone who is familiar with classroom activities in an elementary school.(d) Duke (1997), who observed a Japanese language class in an elementary school, was surprised that every child there could read.(e) However, it is doubtful whether a non-Japanese educator notices subtle signs of dyslexia on an occasional visit to a classroom.(f) Contrary to Wydell & Butterworth's belief, the fact is that even normal students may be children with reading problems(g):(105) for example(106), average 10th graders are able to correctly name only 86% of the 1945 official kanji that they are expected to know by the end ninth grade (Yamada, 1998)(h).

Second(100), Stevenson et al. (1982) indicated that the percentages of fifth graders who were performing reading tasks at least two grade levels below average were 7.5%, 5.4%, and 6.3% in Taiwan, Japan, and the U.S., respectively(107). But were the Japanese children with reading difficulties the only ones who tended to have other specific cognitive deficits? If not, and if we suppose that some 80% of the poor

readers in the U.S. group are dyslexic, we would assume the same to be true with the Japanese group. This would mean that 4.3% (5.4% multiplied by 80%) of Japanese fifth graders are dyslexic, which is much higher than 0.98%.(j)

A third factor camouflaging the existence of dyslexia relates to(100) the fact that the main cause of developmental dyslexia is unknown at present.(k) Certainly(102), visual errors are frequent among children with reading difficulties and even among normal children (Yamada, 1998). It seems premature to postulate that visual errors have little to do with phonological processing. Children with phonological processing impairments may rely heavily on direct visual information and make more visual errors simply because of their phonological processing impairment. Further(103), metalinguistic knowledge such as phonological awareness seems to play a major role in learning to read in Japanese. No in-depth analysis has been undertaken concerning the issue of how poor metalinguistic knowledge manifests itself in the course of learning to read in Japanese.(m)

Having refuted the myth of a dyslexia-free Japan(8), let us take a look at the present Japanese situation(9). The general public knows little about dyslexia. No dyslexia association exists in Japan. Reading research in general is not active despite the fact that many important questions need to be addressed. The number of members of the Japan Reading Association is some 300, and only a few presentations are made at its annual convention with none involving dyslexia. At the Dyslexia Clinic at Hiroshima University, which is in the author's charge, parents, educators, and researchers occasionally ask for information about dyslexia. They claim that reading problems do exist, while they don't know what to do with them.(10)

Thus(109), the situation looks rather pessimistic, suggesting a prolonged survival of the Japanese myth.(11) However, a bright side of the future may be seen among young researchers and students trained in Western nations;(105) sooner or later, the veil of the myth of dyslexia will

be uncovered. Also(104), the Japanese Ministry of Education, perhaps as a result of the pressure of parents and teachers, is now concerned with issues of dyslexia.(12)

References

- Duke, B.C. (1977). Why Noriko can read! Some hints for Johnny. *The Educational Forum*, 41, 230-236
- Makita, K. (1968). The rarity of reading difficulty in Japanese children. *American Journal of Orthopsychiatry*, 38, 599-614
- Stevenson, H.W., Stigler, J.W., Lucker, G.W., Lee, S., Hsu, C., & Kitamura, S. (1982). Reading difficulties: The case of Chinese, Japanese, and English. *Child Development*, 53, 1164-1181.
- Wydell, T.N., & Butterworth, B. (1999). A case study of an English-Japanese bilingual with monolingual dyslexia. *Cognition*, 70,273-305.
- Yamada, J. (1998). Script makes a difference: The induction of deep dyslexic errors in logograph reading. *Dyslexia: An International Journal of Research and Practice*, 4 197-211
- Yamada, J., & Banks, A. (1994). Evidence for and characteristics of dyslexia among Japanese children. *Annals of*

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SPECIAL NOTES FOR THIS PAPER

Introduction

7) This states the main idea of the whole paper. In this particular paper, the author is going to discuss whether Makita's finding is true or not.

Body

- a) The author takes up a controversial statement.
- b) Notice how a long quotation is indented like this. Also, when the author wants to highlight certain expressions, he italicizes them and also puts the statement “emphasis added” at the end.
- c) The author states that that person is wrong.
- d) This is the first reason.
- e) States how one person disagrees.
- f) But quickly states why that person is wrong.
- g) States why the other person is wrong, too.
- h) Evidence supporting the previous statement.
- j) This whole paragraph states a second reason why the traditional finding (of Makita) is wrong.
- k) This whole paragraph states a third reason supporting the author’s main goal. Notice that the paragraph’s main point is clearly stated in the paragraph’s first sentence!
- m) Each sentence in this (and every) paragraph gives evidence which supports the first sentence of this (and every) paragraph.

第 16 章 : : 上級 : その他

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ジョー・ラウアー：広島大学情報メディアセンターの英語助教授。応用英語と日米間文化の関係についての専門家。広島大学にて英語教師として10年に及び勤めている。立命館大学でも6年間勤めていた。また、アメリカをはじめ、グアテマラやモロッコといった国でも英語の教師として働いていた実績をもつ。発行した教科書は8冊にのぼり、最も新しいものでは *Lives and Works of 12 North American Writers: TOEIC テスト. TOEFL テストで学ぶ北米作家12人* (成美堂, 2004) と *America Through Its Holidays* (三修社, 2003)がある。

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<http://home.hiroshima-u.ac.jp/katsuiwa>

Masashi Hashimoto

広島大学大学院社会科学研究科の博士課程で日独英語の形式意味論・統語論を中心に言語学を研究中。言語学に移る以前は理論物理学(素粒子物理学・宇宙論)を専攻し東京大学大学院を修了。好きなものはクラシック音楽(ブラームスとメンデルスゾーン)と英米児童文学。

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第17章：今後の課題

今後は、本格的な運用を通し、システムと教材内容の両面において、その改善を図る予定である。特に、広島大学の教養教育における英語ライティング授業で本システムを利用してもらい、授業アンケートなどを通して出た要望・評価をもとに、授業支援システムとしての教材の改善を図りたい。

また、それとともに、CALLの一形態であるCMC (Computer-Mediated Communication)によるライティング指導という観点から、将来的には、特定の登録学生を対象にした、時間的にも空間的にも完全に非同期な遠隔学習によるオンライン英語ライティング講座などの運用も考えたい。こうした展望も視野に入れ、今後のシステムの改善を図るとともに、運用経験を積んで行く予定である。